City of Rialto

Regular Meeting - Final

Wednesday, July 1, 2026

REGULAR MEETING - 6:00 P.M.

City Council Chambers, 150 S. Palm Ave., Rialto, CA 92376

Planning Commission

Public Participation Procedures

THE PUBLIC WILL HAVE THE OPPORTUNITY TO SPEAK ON ANY ITEM USING THE PODIUM INSIDE THE COUNCIL CHAMBERS.

IF YOU ARE UNABLE TO ATTEND THE MEETING, YOU MAY PROVIDE COMMENTS ON ANY AGENDA ITEM USING ANY OF THE FOLLOWING METHODS:

• IN WRITING VIA MAIL TO: CITY OF RIALTO "ATTN: PLANNING COMMISSION C/O COMMUNITY DEVELOPMENT," 150 S PALM AVE, RIALTO, CA 92376

• IN WRITING VIA EMAIL TO PLANNING@RIALTOCA.GOV AT LEAST TWO (2) HOURS BEFORE THE MEETING.

YOU MAY CALL THE COMMUNITY DEVELOPMENT DEPARTMENT AT (909) 820-2505 DURING REGULAR BUSINESS HOURS OR SEND AN EMAIL TO PLANNING@RIALTOCA.GOV TO FIND OUT WHAT DECISIONS THE PLANNING COMMISSION MADE ON THE AGENDA ITEMS.

Call To Order

Pledge of Allegiance

Roll Call

Chair Mike Story, Vice-Chair Jerry Gutierrez, Dale Estvander, Ray Corral, Terrie Schneider, Terry Thompson, and Virginia Avalos-Villalobos

Oral Communications from the Audience on items not on the Agenda

Planning Commission Minutes

PC-26-0326 Minutes from the May 6, 2026 Planning Commission meeting.

Attachments: Minutes from the May 6, 2026 Planning Commission Meeting

Public Hearings

PC-26-0433

Conditional Development Permit No. 2025-0003: A request to allow the development and operation of a 56,317 square foot 4-story 95-room hotel on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan. On August 22, 2017, the City Council adopted an Addendum to the Renaissance Specific Plan Environmental Impact Report (Environmental Assessment Review No. 15-47) that included the development and operation of a hotel on the site, in accordance with the requirements of the California Environmental Quality Act (CEQA).

Precise Plan of Design No. 2025-0003: A request to allow the development of a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan. On August 22, 2017, the City Council adopted an Addendum to the Renaissance Specific Plan Environmental Impact Report (Environmental Assessment Review No. 15-47) that included the development and operation of a hotel on the site, in accordance with the requirements of the California Environmental Quality Act (CEQA).

Attachments: Exhibit A - Location Map

Exhibit B - Site Plan

Exhibit C - Floor Plan

Exhibit D - Elevations

Exhibit E - Landscape Plans

Exhibit F - 2017 Addendum

Exhibit G - 2026 CEQA Consistency Analysis

Exhibit H - Draft Resolution for CDP No. 2025-0003

Exhibit I - Draft Resolution for PPD No. 2025-0003

Action Items

None.

Community Development Director Comments

Planning Commission Comments

Adjournment

City of Rialto

Legislation Text

File #: PC-26-0326, **Version:** 1, **Agenda #:**

Minutes from the May 6, 2026 Planning Commission meeting.

CITY OF RIALTO

THE REGULAR MEETING MINUTES OF PLANNING COMMISSION

May 6, 2026 - 6:00 p.m.

The regularly scheduled Planning Commission meeting of the City of Rialto was held in the City of Rialto City Council Chambers located at 150 South Palm Avenue, Rialto, California 92376, on May 6, 2026.

This meeting was called by the presiding officer of the City of Rialto Planning Commission in accordance with the provisions of **Government Code §54956** of the State of California.

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CALL TO ORDER

Chair Mike Story called the meeting to order at 6:00 p.m.

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PLEDGE OF ALLEGIANCE

Commissioner Terry Schnieder led the pledge of allegiance.

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ROLL CALL

Roll Call was taken by Administrative Assistant, Heidy Gonzalez.

Present:
Chair Mike Story
Commissioner Ray Corral
Commissioner Dale Estvander
Commissioner Terrie Schneider
Commissioner Terry Thompson

Absent:
Vice-Chair Jerry Gutierrez
Commissioner Virginia Avalos-Villalobos

Staff Present:
Community Development Director, Christina Taylor
Assistant City Attorney, Robert Khuu
Community Development Manager, Daniel Casey
Senior Planner, Daniel Rosas
Administrative Assistant, Heidy Gonzalez

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ORAL COMMUNICATION

Chair Story asked if there were any oral communications from the public not on the agenda. Mrs. Gonzalez stated there were none.

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PLANNING COMMISSION MEETING MINUTES

Chair Story announced that the first item on the agenda is Planning Commission Meeting Minutes.

Motion by Commissioner Terry Thompson, seconded by Commissioner Dale Estvander to move to approve the April 15, 2026, Planning Commission meeting minutes.

Vote on the motion:
AYES: 5 (Corral, Estvander, Schneider, Story, Thompson)
NOES: 0
ABSTENTION: 0
ABSENT: 2 (Gutierrez, Avalos-Villalobos)

Motion carries, 5-2-0.

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PUBLIC HEARINGS

Chair Story stated the next item on the agenda is Tentative Tract Map No. 2024-0002 and Precise Plan of Design No. 2024-0024 (File PC-26-0260).

Senior Planner Daniel Rosas made the presentation.

Tentative Tract Map No. 2024-0002: A request to allow the subdivision of approximately 35.19 gross acres of land (APNs: 0264-153-02, 0264-211-08, -09, & 0264-212-08) located on the east side of Linden Avenue approximately 850 feet south of Renaissance Parkway within the Renaissance Specific Plan into twelve (12) residential condominium lots and eight (8) lettered lots for private streets, open space/amenities, and water quality management. An Addendum to the Renaissance Specific Plan Amendment 2016 Final Environmental Impact Report (Environmental Assessment Review No. 2025-0001) has been prepared for consideration in conjunction with the project.

Precise Plan of Design No. 2024-0024: A request to allow the development of a private residential neighborhood comprised of 292 single-family dwelling units, paving, landscaping, lighting, amenities, and drainage improvements in conjunction with the subdivision. An Addendum to the Renaissance Specific Plan Amendment 2016 Final Environmental Impact Report (Environmental Assessment Review No. 2025-0001) has been prepared for consideration in conjunction with the project.

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PUBLIC HEARINGS

The applicant, Glen Crosby with the Lewis-Hillwood Rialto Company, provided a brief presentation.

Commissioner Thompson inquired about the traffic study conducted between Ayala and Alder. Daniel Casey explained that the study determined the traffic generated by the project would not exceed any established level-of-service thresholds.

Commissioner Ray Corral asked how long the duration of phase one trenching would last. The applicant stated that their goal is to enter the builder market by mid-summer, assuming the civil engineering plans receive timely approval.

Chair Story questioned whether peak shift hours at the Amazon warehouse would increase traffic along Linden Avenue. Mr. Casey responded that the traffic study included a traffic signal warrant analysis. Mr. Crosby further explained that the traffic studies completed for phases one and two did not trigger any additional signal requirements.

Chair Story opened the Public Hearing.

Commissioner Estvander made a motion to close the Public Hearing, seconded by Commissioner Thompson.

Commissioner Estvander made a motion to approve the Tentative Tract Map No. 2024-0002 and Precise Plan of Design No. 2024-0024. Seconded by Commissioner Thompson.

Vote on the motion:
AYES: 5 (Corral, Estvander, Schneider, Story, Thompson)
NOES: 0
ABSTENTION: 0
ABSENT: 2 (Gutierrez, Avalos-Villalobos)

Motion carries, 5-2-0.

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Chair Story stated the next item on the agenda is Conditional Development Permit No. 25-0008 and Precise Plan of Design No. 25-0015 (File PC-26-0249).

Community Development Manager Daniel Casey made the presentation.

Conditional Development Permit No. 25-0008: A request to establish vehicular drive-thru service in conjunction with a proposed 4,210 square foot

restaurant building on 1.94 acres of land (APN: 0130-051-51) located at the southwest corner of Foothill Boulevard and Acacia Avenue within the Foothill Mixed-Use Zone (FMUZ) land use district of the Foothill Central Specific Plan. This project is categorically exempt pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the California Environmental Quality Act (CEQA).

Precise Plan of Design No. 25-0015: A request to allow the development of a 4,210 square foot restaurant building with drive-thru service on 1.94 acres of land (APN: 0130-051-51) located at the southwest corner of Foothill Boulevard and Acacia Avenue within the Foothill Mixed-Use Zone (FMUZ) land use district of the Foothill Central Specific Plan. This project is categorically exempt pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the California Environmental Quality Act (CEQA).

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The applicant provided a brief presentation.

Commissioner Thompson asked whether a "right turn only" sign could be installed at the driveway exiting onto Foothill Boulevard. Mr. Casey responded that such a sign was not recommended as part of the traffic study. The applicant added that they would consider installing the sign if traffic issues arise in the future.

Chair Story opened the Public Hearing.

Commissioner Estvander made a motion to close the Public Hearing, seconded by Commissioner Corral.

Commissioner Estvander made a motion to approve the Conditional Development Permit No. 25-0008 and Precise Plan of Design No. 25-0015. Seconded by Commissioner Thompson.

Vote on the motion:
AYES: 5 (Corral, Estvander, Schneider, Story, Thompson)
NOES: 0
ABSTENTION: 0
ABSENT: 2 (Gutierrez, Avalos-Villalobos)

Motion carries, 5-2-0.

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Chair Story stated the next item on the agenda is Conditional Development Permit No. 2023-0024 and Precise Plan of Design No. 2023-0032 (File PC-26-0263).

PUBLIC HEARINGS Senior Planner Daniel Rosas made the presentation.

Conditional Development Permit No. 2023-0024: A request to allow the development and operation of a 23,112 square-foot industrial warehouse building on approximately 1.41 acres of land (APN: 0254-091-13) located at the southwest corner of Valley Boulevard and Lilac Avenue within the Industrial Park (I-P) land use district of the Gateway Specific Plan. This project is categorically exempt pursuant to Section 15332 (Class 32- In-Fill Development Projects) of the California Environmental Quality Act (CEQA).

Precise Plan of Design No. 2023-0032: A request to allow the development of a 23,112 square foot industrial warehouse building with associated paving, landscaping, fencing, lighting, and drainage improvements on approximately 1.41 acres of land (APN: 0254-091-13) located at the southwest corner of Valley Boulevard and Lilac Avenue within the Industrial Park (I-P) land use district of the Gateway Specific Plan. This project is categorically exempt pursuant to Section 15332 (Class 32 – In-Fill Development Projects) of the California Environmental Quality Act (CEQA).

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The applicant, Somy Mukherjee, introduced himself.

Chair Story asked whether the truck driveway aligns with the driveway at the Days Inn located across the street. Mr. Casey confirmed that the two driveways are generally aligned.

Chair Story opened the Public Hearing.

Commissioner Estvander made a motion to close the Public Hearing, seconded by Commissioner Corral.

Commissioner Estvander made a motion to approve the Conditional Development Permit No. 2023-0024 and Precise Plan of Design No. 2023-0032. Seconded by Commissioner Thompson.

Vote on the motion:
AYES: 5 (Corral, Estvander, Schneider, Story, Thompson)
NOES: 0
ABSTENTION: 0
ABSENT: 2 (Gutierrez, Avalos-Villalobos)

Motion carries, 5-2-0.

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COMMUNITY DEVELOPMENT DIRECTOR COMMENTS

Chair Story stated that the next item on the agenda is Community Development Director comments.

Community Development Manager Daniel Casey announced that the Planning Commission meeting scheduled for Wednesday, May 20, will be canceled due to staff attendance at the International Council of Shopping Centers (ICSC) conference, taking place May 18-20. The next regular Planning Commission meeting will be held on June 3.

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PLANNING COMMISSIONER COMMENTS

Chair Story stated the next item on the agenda is Planning Commissioner comments.

Commissioner Estvander stated he was sad to see Chuck's liquor go.

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ADJOURNMENT

Commissioner Estvander made a motion to adjourn the meeting. Commissioner Corral seconded the motion.

The Regular Planning Commission meeting on Wednesday, May 6, 2026, adjourned at 6:42 p.m.

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Minutes prepared by Heidy Gonzalez
Administrative Assistant

_____

Mike Story
Chair, Planning Commission

File #: PC-26-0433, **Version:** 1, **Agenda #:**

For Planning Commission Meeting of July 1, 2026
TO: Chairman and Planning Commissioners
APPROVAL: Christina Taylor, Community Development Director
REVIEWED BY: Daniel Casey, Community Development Manager
FROM: Daniel Rosas, Senior Planner

Conditional Development Permit No. 2025-0003: A request to allow the development and operation of a 56,317 square foot 4-story 95-room hotel on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan. On August 22, 2017, the City Council adopted an Addendum to the Renaissance Specific Plan Environmental Impact Report (Environmental Assessment Review No. 15-47) that included the development and operation of a hotel on the site, in accordance with the requirements of the California Environmental Quality Act (CEQA).

Precise Plan of Design No. 2025-0003: A request to allow the development of a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan. On August 22, 2017, the City Council adopted an Addendum to the Renaissance Specific Plan Environmental Impact Report (Environmental Assessment Review No. 15 -47) that included the development and operation of a hotel on the site, in accordance with the requirements of the California Environmental Quality Act (CEQA).

APPLICANT:

Paradise Lake, LLC., 4300 Edison Avenue, Chino, CA 91754

LOCATION:

The project site is within Planning Area 11 of the Renaissance Specific Plan, located generally on the northwest corner of Alder Avenue and Renaissance Parkway (APN's: 0240-191-50 & -51) within the Freeway Commercial (FC) land use district as shown in the attached Location Map (**Exhibit A**).

BACKGROUND:

Surrounding General Plan Land Use Designations

Location	***General Plan Designation***
Site	Specific Plan with a Specific Plan Overlay (Renaissance SP)

North	Specific Plan with a Specific Plan Overlay (Renaissance SP)
East	Specific Plan with a Specific Plan Overlay (Renaissance SP)
South	Specific Plan with a Specific Plan Overlay (Renaissance SP)
West	Specific Plan with a Specific Plan Overlay (Renaissance SP)

Surrounding Zoning/Land Use Designations

Location	***Zoning***
Site	RSP- Freeway Commercial (FC)
North	Not A Part - Cal trans (SR-210)
East	RSP- Freeway Commercial (FC)
South	RSP- Freeway Commercial (FC)
West	RSP- Freeway Commercial (FC)

Site Characteristics
The project site is a relatively flat, quadrilateral-shaped piece of land comprised of two (2) parcels approximately 2.68 acres in size with approximate dimensions of 360 feet (north-south) by 320 feet (east-west). The site is bound on the south by an existing segment of Renaissance Parkway. The property is mostly vacant except for an existing asphalt drive-aisle, an existing concrete driveway, and existing curb, gutter, and sidewalk along the entire Renaissance Parkway frontage that provide access to existing developments to the east of the project site.

Surrounding Area
To the north of the project site is the eastbound off-ramp of the SR-210 Freeway at Alder Avenue, and to the east is an existing 76 vehicle fuel station. To the south, across Renaissance Parkway, is an existing Fontana Water reservoir facility, and to the west is approximately 4.61 acres of vacant land.

ANALYSIS/DISCUSSION:

Project Proposal
The applicant, Paradise Lake, LLC., proposes to develop and operate a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements on the project site. The applicant identified Fairfield by Marriott as the prospective operator of the hotel.

Entitlement Requirements
The following entitlements are required for the applicant's proposal:

- **Conditional Development Permit:** Per Table 3-2 (General Permitted Uses) of the Renaissance Specific Plan, the establishment and operation of a hotel within the Freeway Commercial (FC) land use district requires Planning Commission approval of a Conditional Development Permit.

- **Precise Plan of Design:** The design of the development and the related site improvements (e.g. site design, building exterior, landscaping, etc.) requires Planning Commission approval of a Precise Plan of Design.

Site Design
According to the site plan (**Exhibit B**), the applicant will construct a 4-story hotel in the northwest corner of the project site. The proposed layout includes a twenty (20) foot deep landscape setback along the Renaissance Parkway frontage, 104 passenger vehicle parking spaces, and asphalt drive-aisles around the proposed building and throughout the project site. On-site drive aisles serve as fire lanes and access to parking existing 76 vehicle fuel station to the east. An existing 40-foot-wide shared driveway on the east end of the site will provide right-in and right-out access to Renaissance Parkway, while an existing 35-foot-wide driveway on the west end of the site will be signalized and will provide full access to Renaissance Parkway.

Additional on-site improvements include pedestrian pathways, landscape planters, site lighting, fencing, and an runoff water quality treatment and retention improvements.

Floor Plan
The floor plan for the proposed building (**Exhibit C**) indicates that the 4-story building will consist of 56,317 square feet with 95 hotel-rooms, centrally located elevators, and stairs cases at opposing ends of the structure. The first floor includes 14 hotel rooms, a lobby and lounge area, a food prep and breakfast dining area, a fitness center, as well as other staff support areas. Levels two, three, and four will consist of 27 guest rooms with staff support areas such as storage, linens, mechanical and electrical rooms. The proposed main building entrance and porte cochere face south towards Renaissance Parkway.

Architectural Design
The proposed building will feature significant vertical and horizontal wall plane articulation in the form of projected masses and height variations on all four (4) sides of the building. As shown on the elevations (**Exhibit D**), the building height ranges from 57 feet to 47.5 feet from the finished floor level. The exterior of the building will be of comprised of exteriors stone, wood paneling, and a palette of approximately six (6) different EIFS finish colors - in shades of brown, tan, gray, and white. Additional architectural features of the building include metal brow accents, reveals, and glazing.

Parking
The development will have one hundred and four (104) passenger vehicle parking spaces, including eight (8) electric vehicle parking spaces. This quantity exceeds the minimum parking requirement as shown in the parking calculation chart below and as required by Chapter 18.58 (Off-Street Parking) of the Rialto Municipal Code:

Type of Use		***Proposed Qua***	***Parking Ratio***	***Number of spaces required***
Boarding / Lodging	Hotel Rooms	Emplo 95 -- 5	1 space / room	95 5

Total Required/Total Provided	**100/104**

Landscaping
The landscape coverage for the project is 20.4 percent, which exceeds the minimum required amount of 10.0 percent. This includes twenty (20) foot deep landscaping along the Renaissance Parkway street frontage, as well as planters around the perimeter of the project site. All the landscape planters will feature a variety of trees spaced every thirty (30) linear feet and an abundant number of shrubs and groundcover (**Exhibit E**).

Land Use Compatibility
The project and its design are consistent with the Freeway Commercial (FC) land use district of the Renaissance Specific Plan and the Design Guidelines contained within Chapter 18.61 of the Rialto Municipal Code. There are no sensitive uses near the project site, and as a result the project is not anticipated to negatively impact any of the surrounding uses. The project will be a benefit to the community and an improvement to the surrounding area.

GENERAL PLAN CONSISTENCY:

The project is consistent with the following goals of the Land Use Element and Economic Development Element of the Rialto General Plan:

Goal 2-21: Ensure high-quality planned developments in Rialto.

Goal 2-22: Promote commercial and/or industrial development that is well designed, people-oriented, environmentally sustainable, sensitive to the needs of the visitor or resident, and functionally efficient for its purpose

Goal 3-1: Strengthen and diversify the economic base and employment opportunities, and maintain a positive business climate.

ENVIRONMENTAL IMPACT:

The City Council adopted an Addendum (Environmental Assessment Review No. 15-47) to the 2010 Certified Renaissance Specific Plan Final Environmental Impact Report ("Addendum") on August 22, 2017, in accordance with the California Environmental Quality Act (CEQA) (**Exhibit F**). The Addendum analyzed the development of the existing vehicle fuel station to the east as well as a 100-room four (4) story hotel on the project site.

Lilburn Corporation prepared a CEQA Consistency Analysis dated June 2026 (**Exhibit G**) to analyze the changes to the hotel from the earlier Addendum to the current proposal. The CEQA Consistency Analysis determined the project will not result in any new impacts that were not previously analyzed and that the project was adequately analyzed in an earlier EIR Addendum. No new environmental documentation is required.

PUBLIC NOTICE:

The City published a public hearing notice for proposed project in the *San Bernardino Sun*

newspaper, posted copies of the public hearing notice outside the Council Chambers, and mailed public hearing notices to all property owners within 660 feet of the project site, as required by State law.

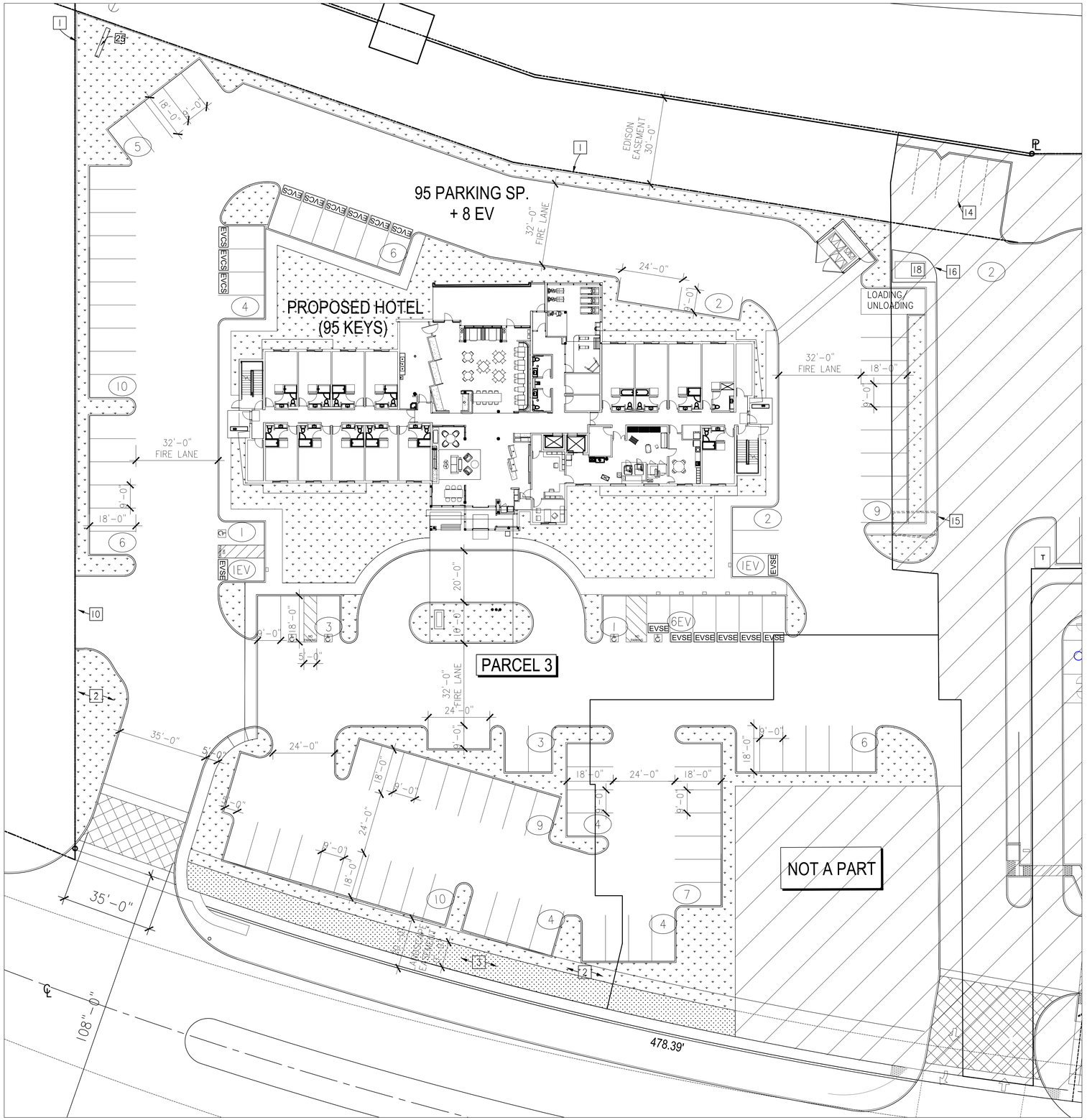
RECOMMENDATION:

The Planning Division recommends that the Planning Commission:

1. Adopt the attached Resolution (**Exhibit H**) to approve Conditional Development Permit No. 2025-0003, based upon the findings and subject to the conditions therein; and

2. Adopt the attached Resolution (**Exhibit I**) to approve Precise Plan of Design No. 2021-0025, based upon the findings and subject to the conditions therein.

Project Location Map



Reference Notes

1. (N) 6' HT CMU SPLIT FACE WALL
2. (N) LANDSCAPE
3. (E) LANDSCAPE
4. (N) ADA PARKING
5. (N) ADA RAMP
6. (N) EV CHARGER
7. (N) EVCS PARKING
8. (N) OUTDOOR SEATING
9. NOT IN USED
10. PER CITY'S REQUIREMENTS IN PREVIOUS CUP APPROVAL, THE DEVELOPER OF THE SITE SHALL SHARE EGRESS/ROADS ACCESS TO ADJACENT PROPERTY.
11. (N) 7'-6" CAST STONE WALL.
12. (N) 4 CUBIC YARD OF COMMERCIAL BINS AND MIXED RECYCLABLES
13. (N) 65-GALLON FOOD WASTE CARTS
14. (E) PARKING LINE TO DEMO
15. (E) CURB AND PLANTER TO DEMO
16. (E) CURB WITH DIESEL FLUID TANK
17. (N) CURB AND PLANTER
18. (E) DIESEL FLUID TANK
19. (N) COMMON DRIVE SHALL BE COMPLETED AS PART OF THE PROPOSED PROJECT
20. (N) PAVED ACCESS SHALL BE PROVIDED TO ALL PARKING STALLS

Legend

- ACCESSIBLE PATH OF TRAVEL
- MEANS OF EGRESS
- EMERGENCY RESPONSES ACCESS PATH
- (E) FIRE HYDRANT
- FIRE DEPT. CONNECTION
- (N) FIRE HYDRANT & CONNECTION
- (E) CHAIN LINK FENCE
- 15'-0" HT. PARKING LOT LIGHT
- 10'-0" HT. WALL MOUNTED EXT. LIGHT
- 10'-0" HT. POLE MOUNTED EXT. LIGHT
- LANDSCAPE AREA
- COVERED PARKING AREA

4 Enlarged Site Plan and Demo Plan

SCALE: 1"=20'-0"

PEGASUS ARCHITECTS
68 GENOA STREET
ARCADIA, CA 91006
TEL: 626.353.3796
E: CHAK@PEGASUSARC.COM

PROJECT: NEW HOTEL DEVELOPMENT
ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA
CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

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SHEET TITLE: ENLARGED SITE PLAN AND DEMO PLAN

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-27
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
PERMIT SET	__/__/____
BID SET	__/__/____

REVISIONS

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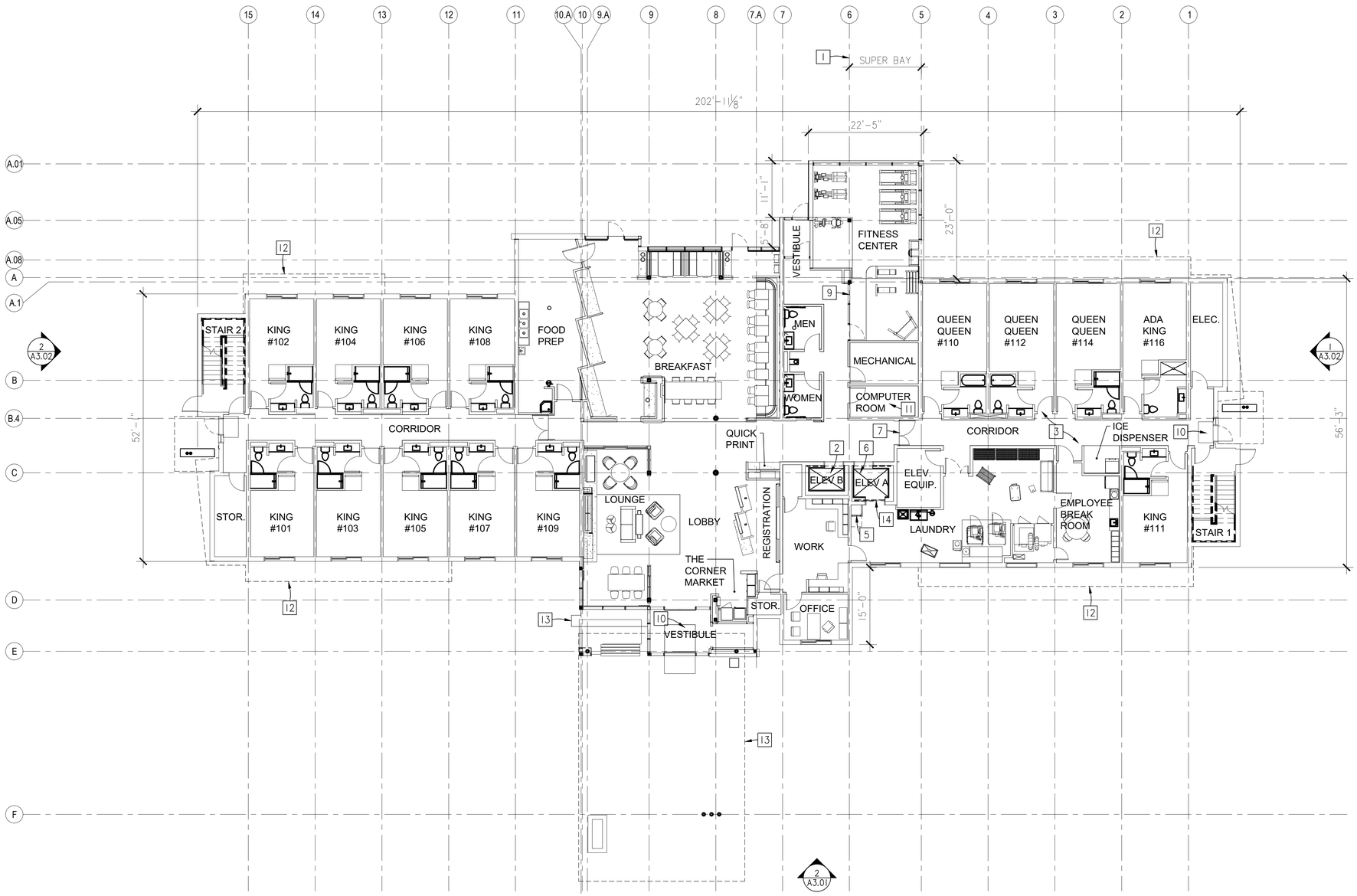
SHEET NO:

A1.02

OF SHEETS

SHEET



1 First Floor Plan SCALE: 3/32"=1'-0"

General Notes

1. THE LOCATION OF ACCESSIBLE UNITS SHOWN ARE SUGGESTED AND MEET THE REQUIREMENTS FOR THE NUMBER OF ACCESSIBLE UNITS IN THE IBC. ACTUAL NUMBERS REQUIRED AND LOCATIONS FOR A SPECIFIC PROJECT ARE TO BE DETERMINED NU THE ARCHITECT OF RECORD.

Reference Notes

1. COORDINATE BAY WIDTH W/ ELEVATOR SHAFT. PROVIDE 4'-0" MIN. CLEAR AT VENDING ON FLOORS ABOVE (SEE TYP. FLOOR PLAN). COORDINATE CENTER TO CENTER ON BAY TO MAINTAIN REQ'D – 12'-6" CLEAR @ GUESTROOMS.
2. ELEVATORS. SEE DESIGN STANDARDS FOR ALL ELEVATOR REQUIREMENTS.
3. TYPICAL GUESTROOM DOORS. STAGGER ENTRANCES TO CREATE RELIEF ALONG CORRIDOR.
4. NOT IN USED.
5. SELF CLOSING, RATED LINEN CHUTE DISCHARGE HATCH W/ FUSIBLE LINK TIED TO FIRE ALARM SYSTEM. PROVIDE CLEAR DOOR SPACE BELOW DISCHARGE AREA. SEE PROJECT MANUAL MATER FOR ADDITIONAL INFO.
6. ENSURE THAT NO GUESTROOM DOORS ARE LOCATED IMMEDIATELY ACROSS FROM ELEVATOR.
7. PROVIDE POCKET DOORS IN OPEN POSITION, WITH THE ELECTROMAGNETIC HOLD-OPEN TIED TO FIRE ALARM SYSTEM.
8. SIDE ENTRY CANOPY ABOVE.
9. INTERIOR GLAZED STOREFRONT. SEE FITNESS CENTER SHEET FOR DETAILS.
10. RECESSED WALK OFF MAT WITH FRAME.
11. COMPUTER ROOM LOCATION AND SIZE MUST BE COORDINATIED BY PROJECT DESIGN TEA. MATV EQUIPMENT MAY BE INCLUDED IN THIS ROOM.
12. EDGE OF BUILDING PROJECTION ABOVE
13. EDGE OF PORTE COCHERE AND CANOPY ABOVE
14. ELEVATOR A FOR REAR DOOR ACCESS TO LAUNDRY

PEGASUS ARCHITECTS

4300 EDISON AVE.,
CHINO, CA 91710

TEL: 909.465.4101
FAX: 909.606.6839

PROJECT: NEW HOTEL DEVELOPMENT

ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA

CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

SHEET TITLE: FIRST FLOOR PLAN

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 08-31-25
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
PERMIT SET	__/__/____
BID SET	__/__/____

REVISIONS

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SHEET NO: A2.01

OF SHEETS

SHEET

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THESE DRAWINGS ARE OWNED BY, AND THE PROPERTY OF PEGASUS ARCHITECTS AND PROTECTED BY THE CURRENT ARCHITECTURAL WORKS COPYRIGHT PROTECTION ACT, AND OTHER APPLICABLE LAWS. THESE DRAWINGS WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGN ARRANGEMENTS OR PLANS SHALL BE USED OR DISCLOSED TO ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF PEGASUS ARCHITECTS. THESE DRAWINGS ARE NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSED CERTIFIED BY PEGASUS ARCHITECTURE FOR CONSTRUCTION ONLY.
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General Notes

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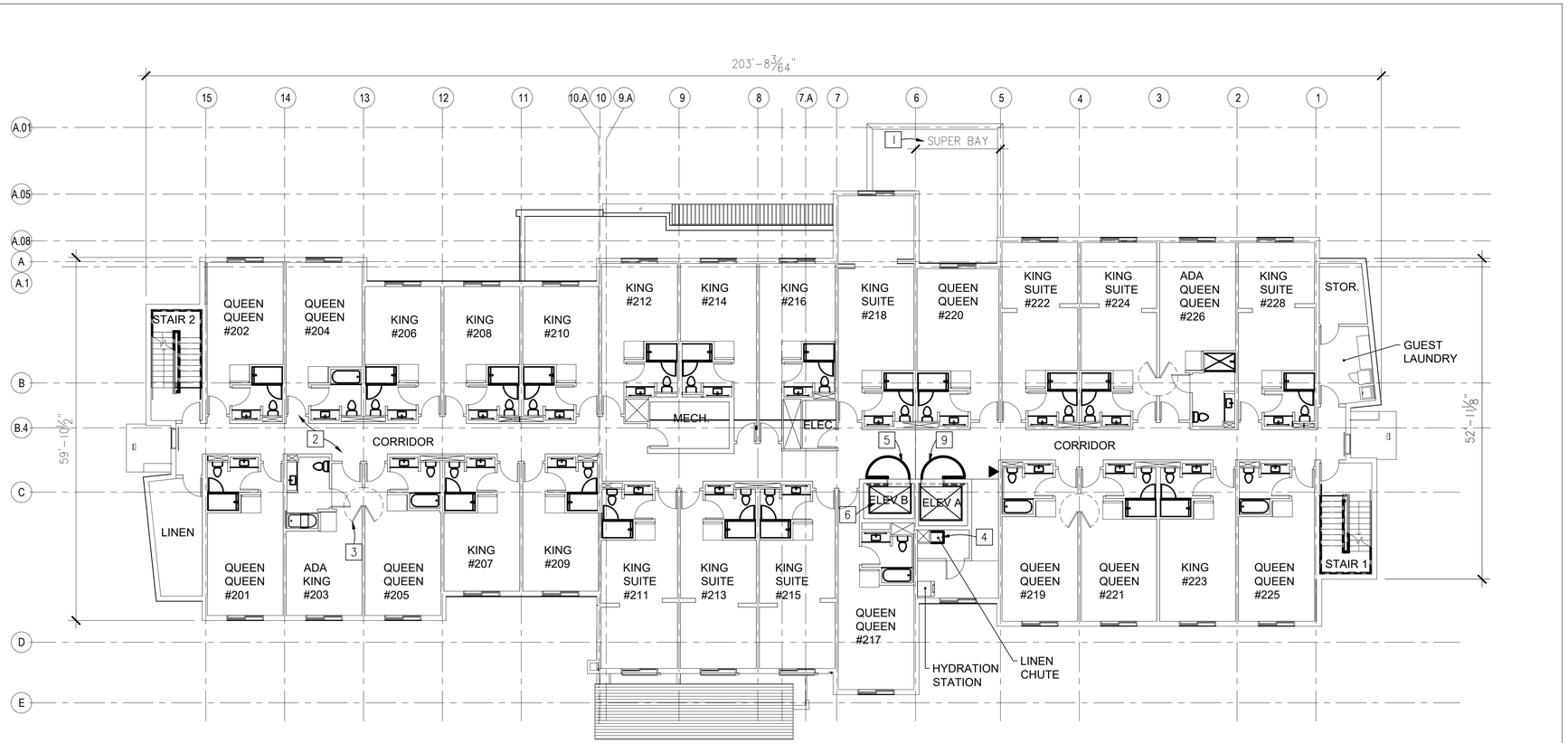
Reference Notes

1. COORDINATE BAY WIDTH W/ ELEVATOR SHAFT. PROVIDE 4'-0" MIN. CLEAR AT VENDING ON FLOORS ABOVE (SEE TYP. FLOOR PLAN). COORDINATE CENTER TO CENTER ON BAY TO MAINTAIN REQ'D – 12'-6" CLEAR @ GUESTROOMS.
2. TYPICAL GUESTROOM DOORS. STAGGER ENTRANCES TO CREATE RELIEF ALONG CORRIDOR.
3. CONNECTING DOOR REQUIRED AT ACCESSIBLE GUESTROOMS. (NOT REQUIRED AT ACCESSIBLE SUITES).
4. SELF CLOSING, RATED LINEN CHUTE DISCHARGE HATCH.
5. ENSURE THAT NO GUESTROOM DOORS ARE LOCATED IMMEDIATELY ACROSS FROM ELEVATOR.
6. ELEVATORS. SEE DESIGNS STANDARDS FOR ALL ELEVATOR REQUIREMENTS.
7. 3-STORY 79/82 UNIT ALTERNATE HOTEL TO HAVE ONLY THREE STORIES INCLUDING THE GROUND FLOOR
8. NOT IN USED.
9. PROVIDE SMOKE DOORS TO PROTECT ELEVATOR OPENINGS WHERE REQUIRED BY CODE.



1 Second Floor Plan SCALE: 3/32"=1'-0"

PEGASUS ARCHITECTS

4300 EDISON AVE.,
CHINO, CA 91710

TEL: 909.465.4101
FAX: 909.606.6839

PROJECT: NEW HOTEL DEVELOPMENT

ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA

CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

SHEET TITLE: SECOND FLOOR PLAN

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-25
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
PERMIT SET	__/__/____
BID SET	__/__/____

REVISIONS

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SHEET NO: A2.02

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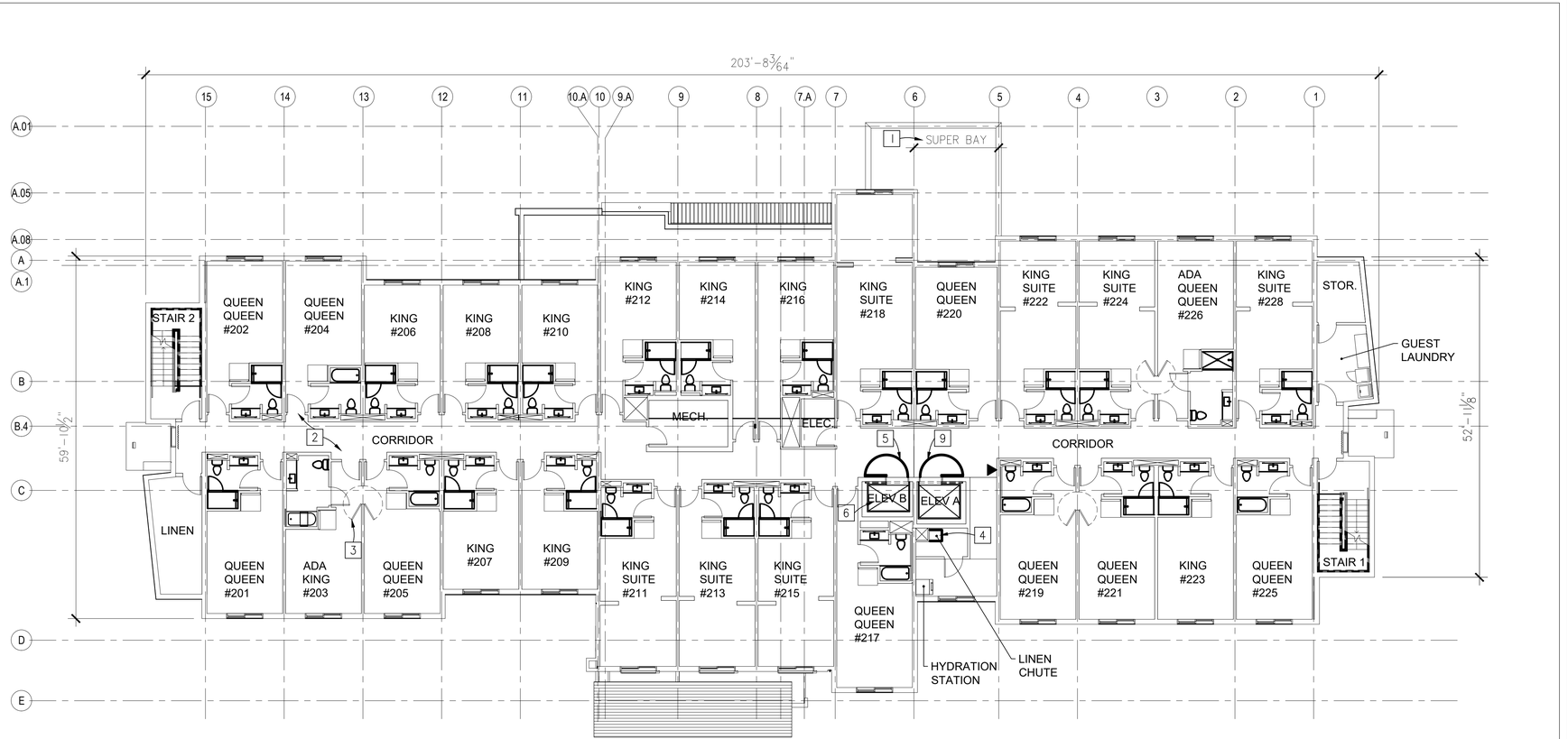

1 Third Floor Plan SCALE: 3/32"=1'-0"

PEGASUS ARCHITECTS

4300 EDISON AVE.,
CHINO, CA 91710

TEL: 909.465.4101
FAX: 909.606.6839

PROJECT: NEW HOTEL DEVELOPMENT

ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA

CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

SHEET TITLE: THIRD FLOOR PLAN

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-25
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
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A2.03

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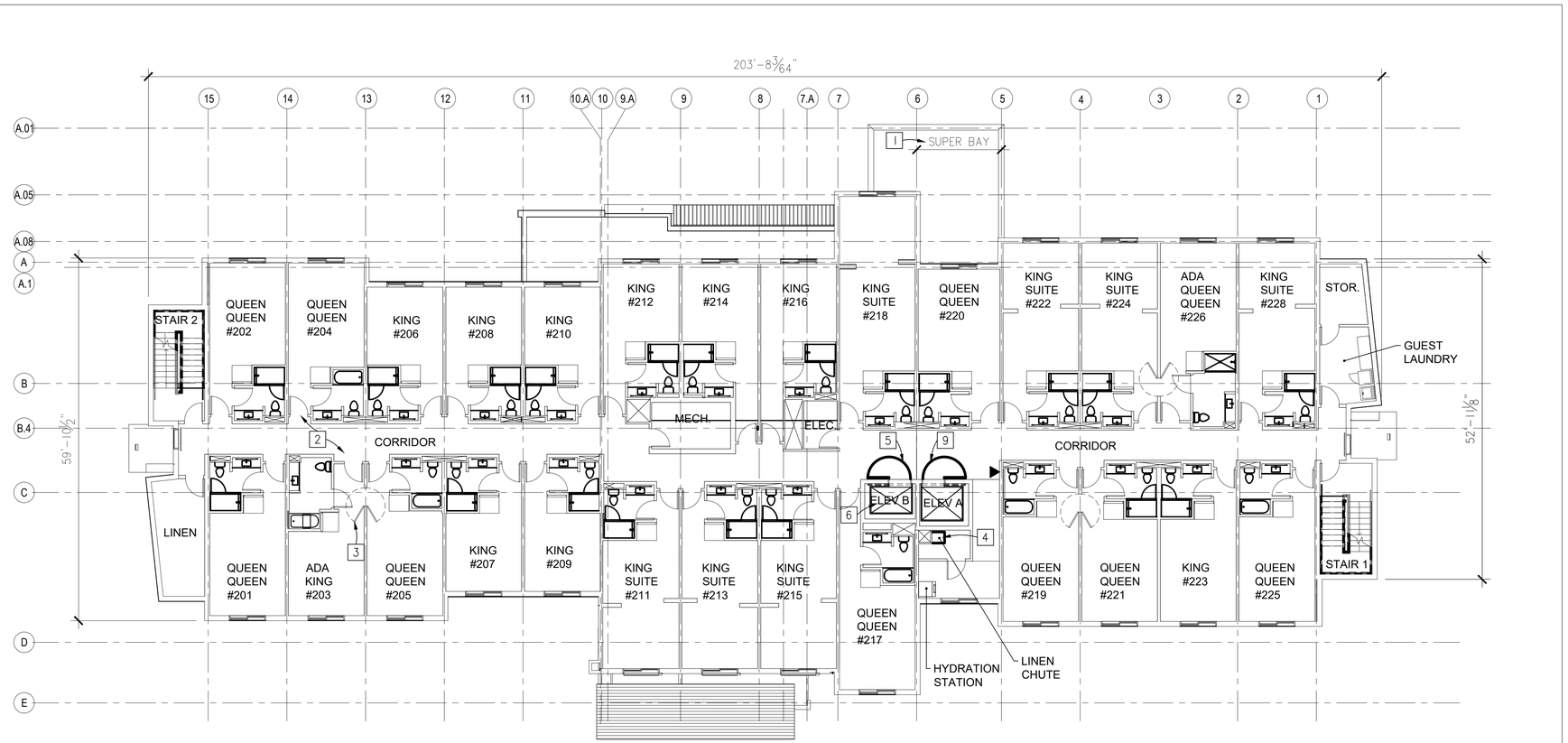

1 Fourth Floor Plan SCALE: 3/32"=1'-0"

PEGASUS ARCHITECTS

4300 EDISON AVE.,
CHINO, CA 91710

TEL: 909.465.4101
FAX: 909.606.6839

PROJECT: NEW HOTEL DEVELOPMENT

ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA

CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

SHEET TITLE: FOURTH FLOOR PLAN

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-25
STATE OF CALIFORNIA

JOB NO.	-
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SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
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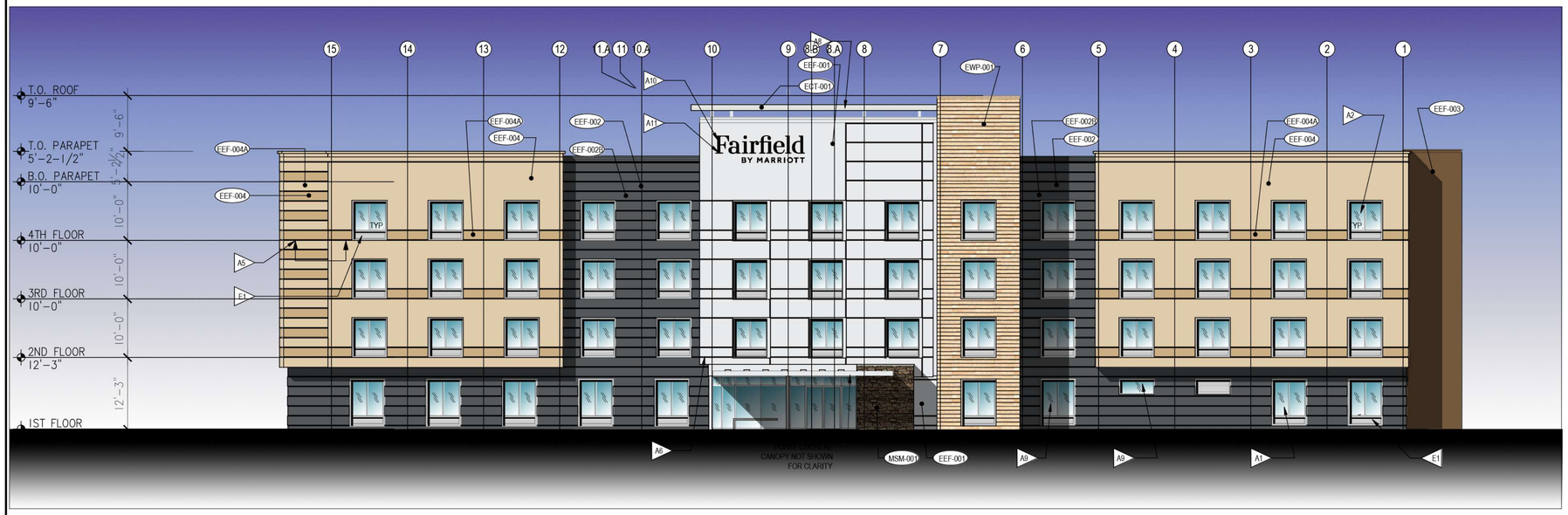
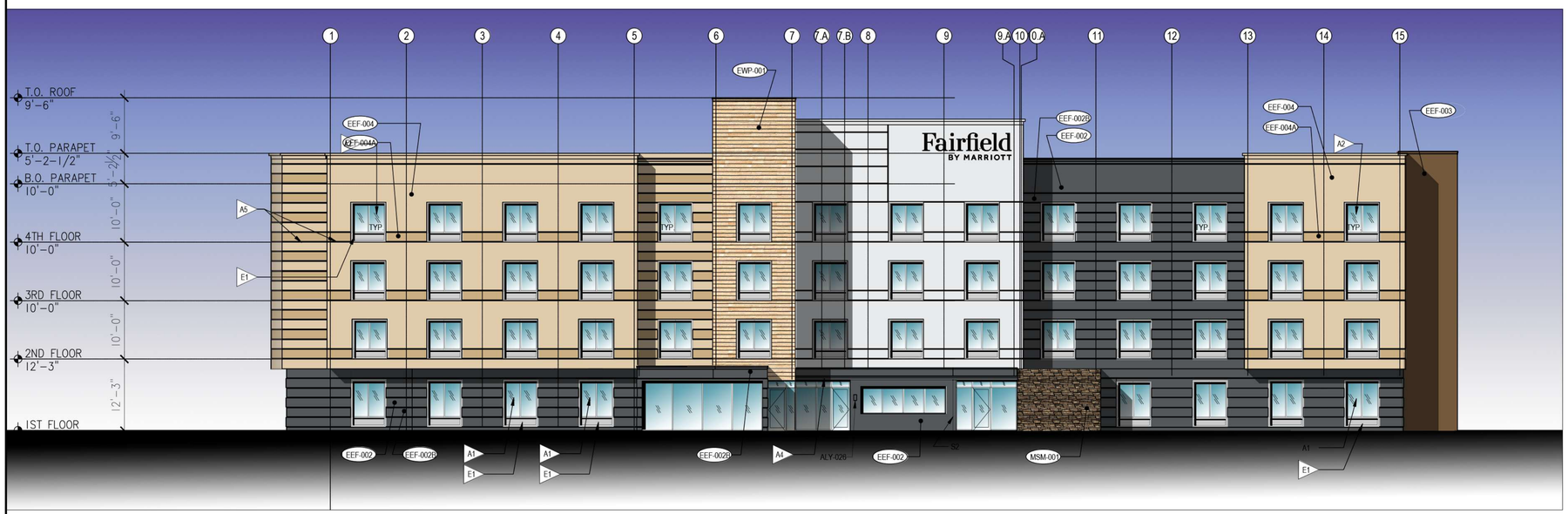


2 South Elevation SCALE: 3/32"=1'-0"



1 North Elevation SCALE: 3/32"=1'-0"

General Notes

1. BUILDING ELEVATIONS ARE APPROXIMATE AND WILL VARY BASED ON STRUCTURAL SYSTEM.
2. PROVIDE CONTRACTOR WITH COLOR PRINTS OF THE ELEVATIONS FOR ADDITIONAL CLARIFY.
3. CONTINUE FINISH TO INSIDE CORNER VERSUS FINISH TRANSITIONS AT OUTSIDE CORNER.
4. ALL DOWNSPOUTS MUST HAVE CLEANOUTS.
5. PROVIDE INTERNAL DOWNSPOUTS, GUTTERS, ROOF DRAINS AND OVERFLOWS AS REQUIRED FOR LOCAL RAINFALL. PROVIDE SECONDARY OVERFLOWS TO DAYLIGHT IN AREAS THAT WILL NOT DRAIN ACROSS WALKING SURFACES.
6. IF EQUIPMENT IS LOCATED ON THE ROOF, SCREEN EQUIPMENT SO THAT IT IS NOT VISIBLE TO THE GUEST AT GRADE LEVEL.

Reference Notes

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2. TYPICAL GUESTROOM WINDOW FOR UPPER FLOOR
3. NOT USED.
4. LOUVERED SUNSHADE.
5. ALIGN AND COORDINATE REVEALS ALONG FACADE OF BUILDING. SEE ENLARGED DETAILS FOR DIMENSIONS.
6. CONTINUE REVEALS ALONG EXTENDED EDGE OF BUILDING.
7. PTAC LOUVER INTEGRAL WITH WINDOW FRAME. FINISH TO MATCH WINDOW FRAME.

Exterior Finish Key

EEF-001	PEARLESCENT ACCENT EIFS FINISH
EEF-002	DARK EIFS FINISH COLOR
EEF-002A	ACCENT EIFS COLOR
EEF-002B	DARK EIFS FINISH COLOR - TEXTURED
EEF-003	STAIR TOWER EIFS COLOR
EEF-004	MAIN BUILDING EIFS COLOR
EEF-004A	ACCENT EIFS COLOR
MSM-001	MANUFACTURED STONE MASONRY
EDS-001	CAST STONE MASONRY
EWP-001	SOLID PHENOLIC EXTERIOR WALL PANELS
ERF-002	PARAPET COPINGS
ERF-003	GRAVEL STOPS
ERF-004	FASCIAS
ECT-001	PAINT - CANOPIES
ECT-002	PAINT - EXTERIOR RAILINGS
ECT-003	PAINT - BOLLARDS AT TRASH ENCLOSURE
EFM-001	FENCE AT TRASH ENCLOSURE
EFM-002	FENCE AT OUTDOOR POOL

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PROJECT: NEW HOTEL DEVELOPMENT
ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA
CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

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SHEET TITLE: NORTH & SOUTH ELEVATIONS

KEY MAP SEAL/STAMP

LICENSED ARCHITECT CHAK FAI LAU C27750 Exp. 08-31-25 STATE OF CALIFORNIA

JOB NO.	-
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SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
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BID SET	__/__/____

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SHEET NO: A3.01

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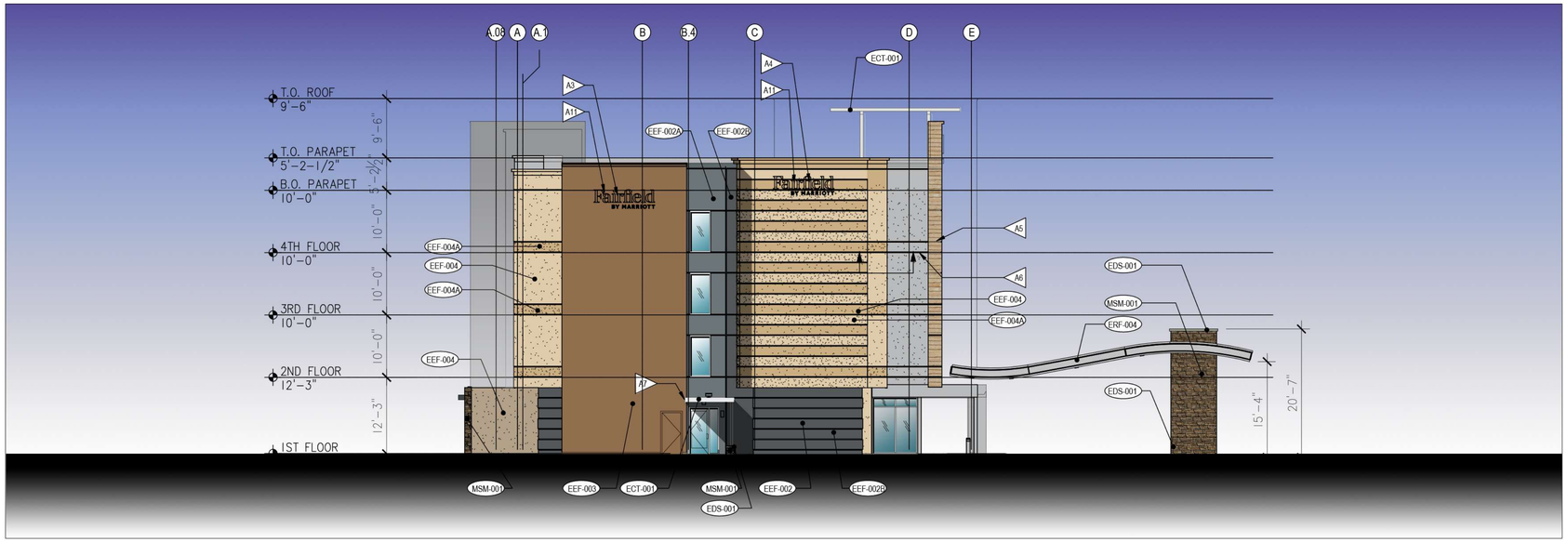
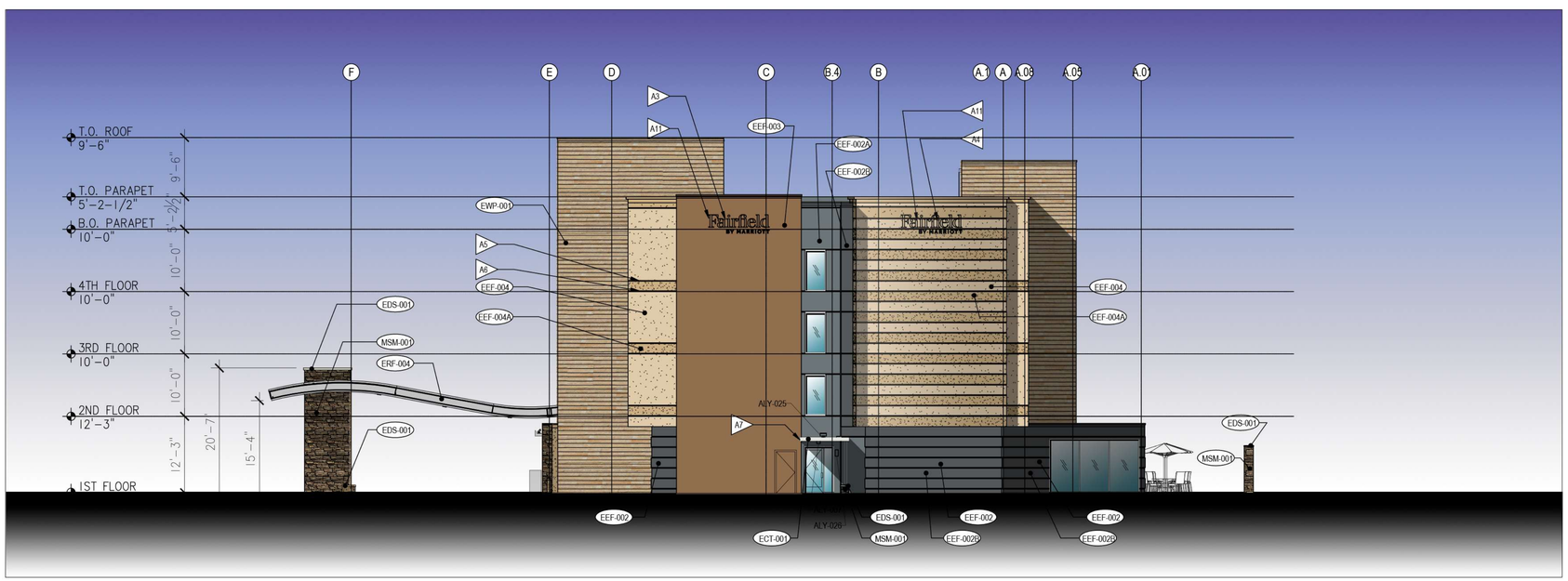


2 West Elevation SCALE: 3/32"=1'-0"



1 East Elevation SCALE: 3/32"=1'-0"

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Reference Notes

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ERF-003	GRAVEL STOPS
ERF-004	FASCIAS
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PEGASUS ARCHITECTS
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ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA
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SHEET TITLE: EAST & WEST ELEVATIONS

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-25
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
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BID SET	__/__/____

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SHEET NO:

A3.02

OF SHEETS

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PEGASUS
ARCHITECTS

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PROJECT: NEW HOTEL DEVELOPMENT

ADDRESS: 2624 W. RENAISSANCE PARKWAY, RIALTO, CA

CLIENT: PARADISE LAKE LLC, 4300 EDISON AVE., CHINO, CA 91710

SHEET TITLE: EAST & WEST ELEVATIONS

KEY MAP

SEAL/STAMP

LICENSED ARCHITECT
CHAK FAI LAU
C27750
Exp. 09-30-25
STATE OF CALIFORNIA

JOB NO.	-
DRAWN BY:	TL/ZL
SUPERVISED BY:	TL
CHECKED BY:	TL
PLAN CHECK	__/__/____
PERMIT SET	__/__/____
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SHEET NO:

A3.01

OF SHEETS

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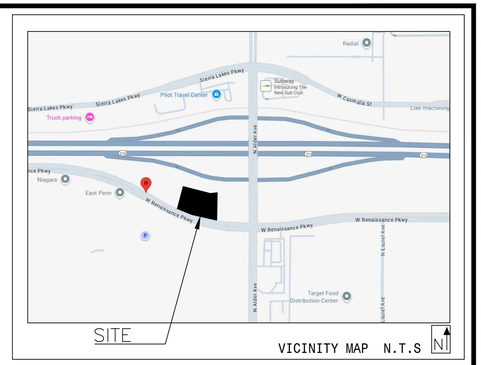
Reference Notes

1. (N) 6' HT CMU SPLIT FACE WALL
2. (N) LANDSCAPE
3. (E) LANDSCAPE
4. (N) ADA PARKING
5. (N) ADA RAMP
6. (N) EV CHARGER
7. (N) EVCS PARKING
8. (N) OUTDOOR SEATING
9. NOT IN USED
10. PER CITY'S REQUIREMENTS IN PREVIOUS CUP APPROVAL, THE DEVELOPER OF THE SITE SHALL SHARE EGRESS/ROADS ACCESS TO ADJACENT PROPERTY.
11. (N) 7'-6" CAST STONE WALL.
12. (N) 4 CUBIC YARD OF COMMERCIAL BINS AND MIXED RECYCLABLES
13. (N) 65-GALLON FOOD WASTE CARTS
14. (E) PARKING LINE TO DEMO
15. (E) CURB AND PLANTER TO DEMO
16. (E) CURB WITH DIESEL FLUID TANK
17. (N) CURB AND PLANTER
18. (E) DIESEL FLUID TANK
19. (N) COMMON DRIVE SHALL BE COMPLETED AS PART OF THE PROPOSED PROJECT
20. (N) PAVED ACCESS SHALL BE PROVIDED TO ALL PARKING STALLS

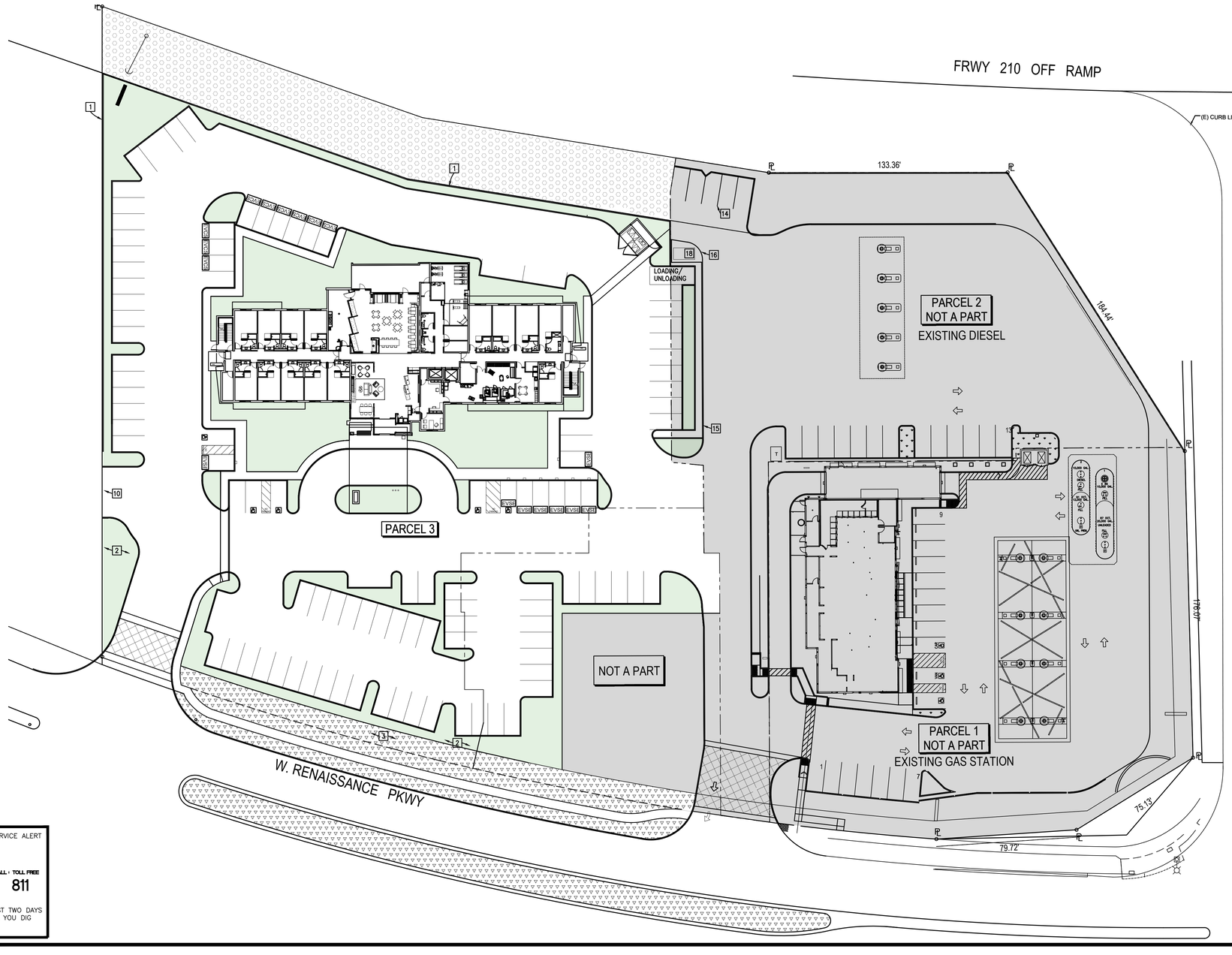
LANDSCAPE ARCHITECTURAL PLANS

A NEW 4-STORY HOTEL DEV.
95-RM. MARRIOTT FAIRFIELD
2624 W. RENAISSANCE PARKWAY,
RIALTO CA

	NEW LANDSCAPE AREA = 20,194 s.q. ft.
	OFF-SITE LANDSCAPE AREA



SHEET INDEX	
L-1	COVER SHEET
L-2	PRELIMINARY LANDSCAPE PLAN -1
L-3	PRELIMINARY LANDSCAPE PLAN -2



Scope Of Work

NEW CONSTRUCTION OF A 95-KEYS (4-STORY) HOTEL DEVELOPMENT. SIGNAGE UNDER SEPARATE PERMIT.

Project Data

ADDRESS:	2624 W. RENAISSANCE PARKWAY, RIALTO, CA
APN#:	0240-191-050 (PARCEL 3) 0240-191-051 (PARCEL 4)
OVERALL SITE AREA:	232,550 S.F. (5.339 AC.)
SITE AREA:	98,921 S.F.
HOTEL BUILDING AREA:	50,073 S.F.
LANDSCAPE AREA:	20,194 S.F.

Project Directory

OWNER:
PARADISE LAKE, LLC
4300 EDISON AVE.,
CHINO, CA 91710

ARCHITECT:
C.F. LAU, A.I.A.
PEGASUS ARCHITECTS
4300 EDISON AVE.,
CHINO, CA 91710
TEL: (909) 465.4101

CIVIL:
BLUE ENGINEERING & CONSULTING, INC.
ANGEL CESAR, PE
9320 BASELINE RD., STE D
RANCHO CUCAMONGA, CA 91701
P: (909) 248-6557

LANDSCAPE:
PHILMAY LANDSCAPE ARCHITECT
ROSALIO SERNA
2532 WALLACE AVE.,
FULLERTON, CA 92831
TEL: (909) 373-1959

CERTIFICATION OF LANDSCAPE DESIGN

I hereby certify that:

(1) I am a professional appropriately licensed in the State of California to provide professional landscape design services.
The landscape design at ____SWA OF ALDER AVE& INTERTATE 210 FWY RIALTO, CA.___ (provide street address or parcel number(s)) were prepared by me or under my supervision.
(2) The landscape design and water use calculations for the identified property comply with the requirements of the City of Rialto Water Efficient Landscape Ordinance (Municipal Code Chapter 13.18) and the City of Rialto Water Efficient Landscape Guidelines.
(3) The information I have provided in this Certificate of Landscape Design is true and correct and is hereby submitted in compliance with the City of Rialto Water Efficient Landscape Guidelines.

PHIL MAY — Print Name
Phil May — Signature
05-14-2026 — Date
3104 — License Number
2532 Wallace Ave., Fullerton, CA 92831 — Address
(909) 373-1959 — Telephone
pmay@philmaydesign.com — E-mail Address
Landscape Design Professional's Stamp

REGISTERED LANDSCAPE ARCHITECT — PHILIP S. MAY — SIGNATURE — 05-31-2027 — RENEWAL DATE — 05-14-2026 — DATE — STATE OF CALIFORNIA

NORTH

0 15' 30' 60'
SCALE: 1" = 30'-0"

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG

REVISIONS	BY

PHIL MAY LANDSCAPE ARCHITECTURE
2532 Wallace Ave.
Fullerton,CA 92831
Phone:(909)373-1959
pmay@philmaydesign.com
www.philmaydesign.com

REGISTERED LANDSCAPE ARCHITECT — PHILIP S. MAY — SIGNATURE — 05-31-2027 — RENEWAL DATE — 05-14-2026 — DATE — STATE OF CALIFORNIA

TITLE SHEET

MARRIOTT FAIRFIELD
2624 W. RENAISSANCE PKWY.
RIALTO, CA

DRAWN R.S.
CHECKED R.S.
DATE 05-14-2026

L-1
OF 3 SHEETS

JOB NO. 24065

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE PROPERTY OF PHIL MAY LANDSCAPE ARCHITECTURE. ALL DESIGNS AND OTHER INFORMATION ON THE DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESS WRITTEN PERMISSION OF PHIL MAY LANDSCAPE ARCHITECTURE. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE SHALL BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS.
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COMPLIANCE STATEMENT

REGISTERED LANDSCAPE ARCHITECT PHILIP S. MAY — DISCIPLINE — 05-31-2027 RENEWAL DATE — 05-14-2026 DATE — STATE OF CALIFORNIA

I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE WATER EFFICIENT LANDSCAPE REGULATIONS OF THE CITY OF RIALTO. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS, I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER.

Water Efficient Landscape Worksheet

Reference Evapotranspiration (ETo)		55.7	RIALTO				
	ETWU requirement	ETWU requirement	ETWU requirement	ETWU requirement	MAWA requirement	ETWU requirement	
Hydrozone#/Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (LA) (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
1) Low water use plants	0.2	Drip	0.81	0.247	18,044	4,455.31	153,860
2) Medium water use plants	0.6	Overhead Spray	0.75	0.800	2,150	1,720.00	59,398
							32,111
							0
							0
							0
							0
							0
							0
			Totals		20,194	6,175.31	213,258
Special Landscape Areas (SLA): Recycled Water							
	[redacted]					0	0
					0	0	0
					0	0	0
				Totals	0	0	0
						Estimated Total Water Use (ETWU)	**213,258**
						Maximum Allowed Water Allowance (MAWA)	**313,821**

Plant Water Use Type	Plant Factor	method	Efficiency
very low	0-0.1	overhead spray	0.75
low	0.1-0.3	drip	0.81
medium	0.4-0.6		
high	0.7-1.0		

MAWA (annual gallons allowed)= (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

where 0.62 is a conversion factor that converts acre-inches per acre/year to gallons per sq. ft./year. LA is the total landsape area in sq. ft, SLA is the total special landscape area in sq. ft., and ETAF is .55 for residential areas and 0.45 for non residential areas.

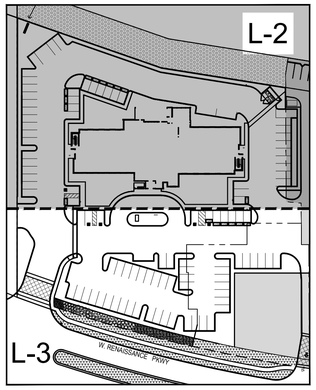
ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	6,175	
Total Area	20,194	Average ETAF for regular landscape areas must be 0.55 or below for
Average ETAF	**0.31**	residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas

Total ETAF x Area	6,175
Total Area	20,194



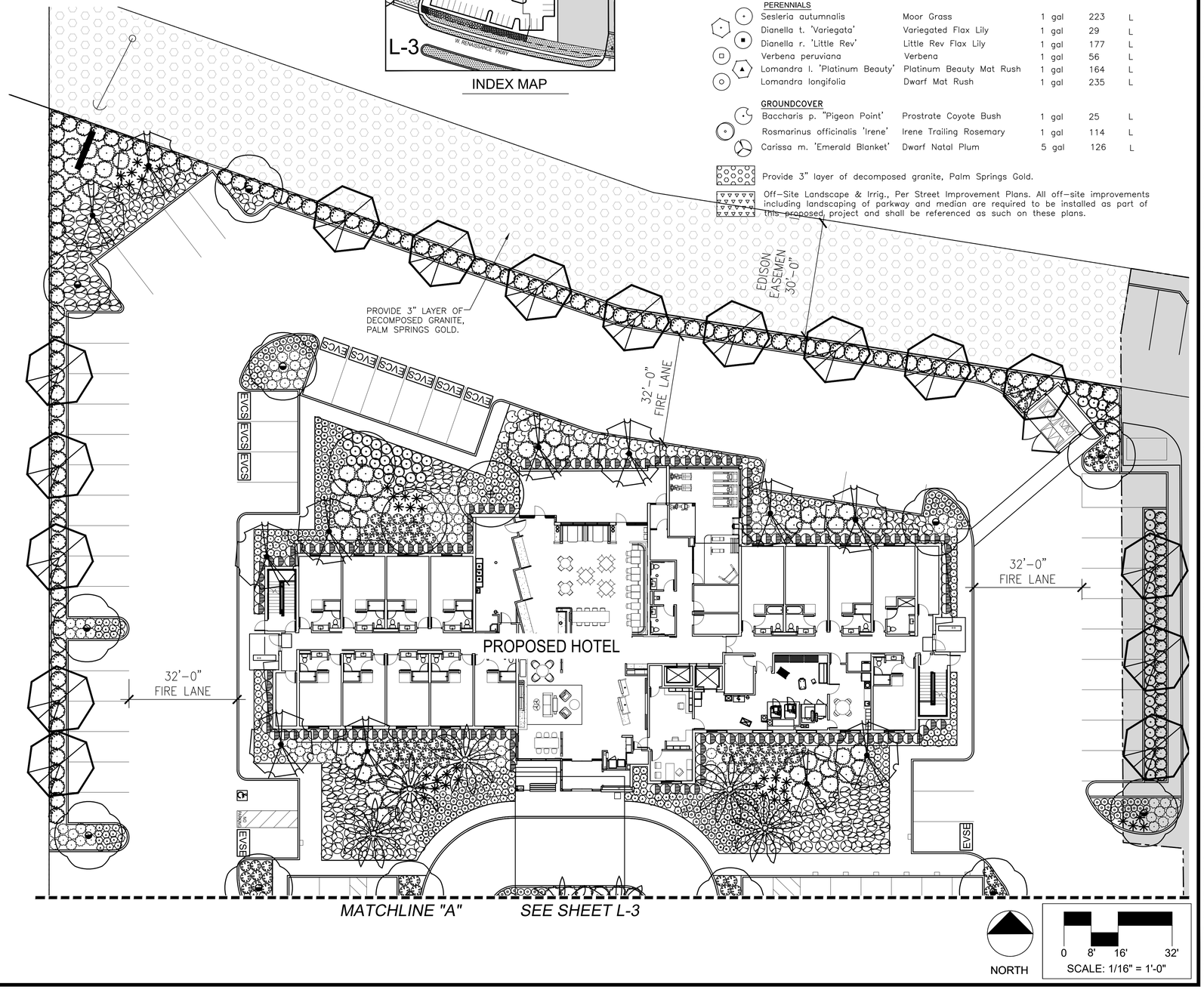
INDEX MAP

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	WUCOLS	REMARKS
	TREE					
	Cercis c. 'Forest Pansy'	Forest Pansy Redbud	24" box	24	M	Std. trur
	Geijera parvifolia	Australian Willow	24" box	20	L	Std. trur
	Lophostemon confertus	Brisbane box	24" box	12	M	Std. trur
	Lagestroemia i. 'Tuscarora'	Crape Myrtle	24" box	9	M	Std. trur
	Phoenix dactylifera	Date Palm	15' trunk	12	L	Std. trur
	SHRUB					
	Agave attenuata	Foxtail Agave	5 gal	54	L	
	Bougainvillea 'Raspberry Ice'	Raspberry Ice Boug.	5 gal	84	L	
	Callistemon 'Little John'	Dwarf Bottlebrush	5 gal	217	L	
	Acacia c. Cousin Itt	Little River Wattle	1 gal	117	L	
	Ligustrum j. 'Texanum'	Texas Privet	5 gal	223	M	
	Westringia fruticosa 'Smokey'	Dwarf Coastal Rosemary	5 gal	155	L	
	Westringia fruticosa 'Mundi'	Mundi Coastal Rosemary	5 gal	180	L	
	PERENNIALS					
	Sesleria autumnalis	Moor Grass	1 gal	223	L	
	Dianella t. 'Variegata'	Variegated Flax Lily	1 gal	29	L	
	Dianella r. 'Little Rev'	Little Rev Flax Lily	1 gal	177	L	
	Verbena peruviana	Verbena	1 gal	56	L	
	Lomandra l. 'Platinum Beauty'	Platinum Beauty Mat Rush	1 gal	164	L	
	Lomandra longifolia	Dwarf Mat Rush	1 gal	235	L	
	GROUNDCOVER					
	Baccharis p. "Pigeon Point'	Prostrate Coyote Bush	1 gal	25	L	
	Rosmarinus officinalis 'Irene'	Irene Trailing Rosemary	1 gal	114	L	
	Carissa m. 'Emerald Blanket'	Dwarf Natal Plum	5 gal	126	L	

Provide 3" layer of decomposed granite, Palm Springs Gold.

Off-Site Landscape & Irrig., Per Street Improvement Plans. All off-site improvements including landscaping of parkway and median are required to be installed as part of this proposed, project and shall be referenced as such on these plans.



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pmay@philmaydesign.com
www.philmaydesign.com

REGISTERED LANDSCAPE ARCHITECT PHILIP S. MAY — DISCIPLINE — 05-31-2027 RENEWAL DATE — 05-14-2026 DATE — STATE OF CALIFORNIA

PRELIMINARY
LANDSCAPE PLAN -1

MARRIOTT FAIRFIELD
2624 W. RENAISSANCE PKWY.
RIALTO, CA

DRAWN R.S.
CHECKED R.S.
DATE 05-14-2026

L-3

OF 3 SHEETS

JOB NO. 24065

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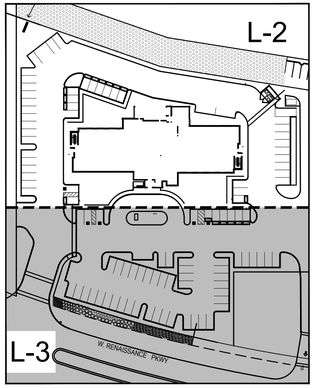

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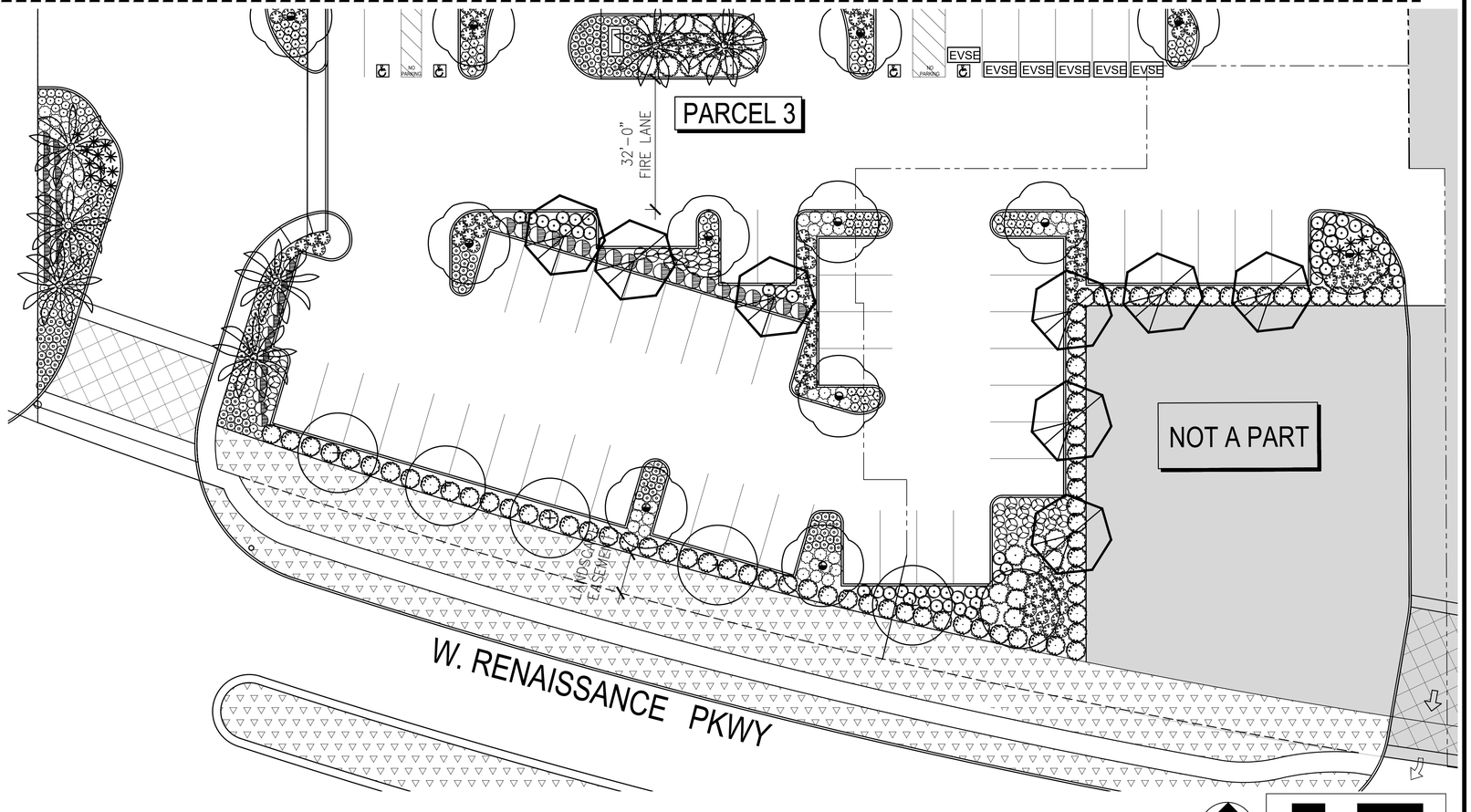
MATCHLINE "A" SEE SHEET L-2



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DATE 05-14-2026

L-3
OF 3 SHEETS

JOB NO. 24065

Addendum to the
Renaissance Specific Plan Final Environmental Impact Report
State Clearinghouse No. 2006071021

Rialto Renaissance

TENTATIVE PARCEL MAP NO. 19680

PRECISE PLAN OF DESIGN NO. 2411

ENVIRONMENTAL ASSESSMENT REVIEW NO. 15-47

CONDITIONAL DEVELOPMENT PERMITS NO. 2015-2597, 2015-2598, 2015-2599, 2015-2600, 2015-2601, 2015-2602

Lead Agency:

City of Rialto
Development Services Department
Planning Division
150 South Palm Avenue
Rialto, CA 92376
Contact: Gina Gibson, Planning Manager
(909) 820-2525

CEQA Consultant:

T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780
(714) 505-6360

July 25, 2017

TABLE OF CONTENTS

Section Name and Number **Page**

1.0 INTRODUCTION 1-1
1.1 California Environmental Quality Act 1-1
1.2 Renaissance Specific Plan Final EIR 1-1
1.3 California Environmental Quality Act Requirements 1-4
1.4 Type of CEQA Compliance Document and Level of Analysis 1-6
1.5 Format and Content of this EIR Addendum 1-7
1.6 Preparation and Processing of this EIR Addendum 1-7
1.7 Initial Study Checklist 1-8
1.8 Existing Documents Incorporated By Reference 1-9
1.9 Points of Contact 1-9
2.0 PROJECT DESCRIPTION 2-1
2.1 Project Setting and Location 2-1
2.2 Statement of Objectives 2-2
2.3 Proposed Discretionary Actions 2-14
2.3.1 Renaissance Specific Plan 2-14
2.3.2 Tentative Tract Map No. 19680 2-16
2.3.3 Precise Plan of Design 2-17
2.4 Scope of Environmental Analysis 2-23
2.4.1 Construction Characteristics 2-23
2.4.2 Operational Characteristics 2-24
3.0 ENVIRONMENTAL CHECKLIST 3-1
3.1 Project Description 3-1
3.2 Environmental Factors Potentially Affected 3-2
3.3 Environmental Determination 3-3
3.4 Evaluation of Environmental Impacts 3-4
4.0 DISCUSSION OF ENVIRONMENTAL EVALUATION 4-1
4.1 Aesthetics 4-1
4.2 Agriculture and Forest Resources 4-4
4.3 Air Quality 4-6

TABLE OF CONTENTS

Section Name and Number **Page**

4.4 Biological Resources 4-19
4.5 Cultural Resources 4-22
4.6 Geology and Soils 4-26
4.7 Hazards and Hazardous Materials 4-31
4.8 Hydrology and Water Quality 4-35
4.9 Land Use and Planning 4-41
4.10 Mineral Resources 4-43
4.11 Noise 4-45
4.12 Population and Housing 4-59
4.13 Public Services 4-60
4.14 Recreation 4-61
4.15 Transportation 4-62
4.16 Utilities 4-84
4.17 Greenhouse Gas Emissions (Climate Change) 4-87
4.18 Mandatory Findings of Significance 4-94

5.0 REFERENCES 5-1

6.0 LIST OF PREPARERS 6-1

7.0 MITIGATION MONITORING AND REPORTING PROGRAM 7-1

LIST OF FIGURES

Figure Name and Number **Page**

Figure 2-1 Regional Map 2-4
Figure 2-2 Vicinity Map 2-5
Figure 2-3 Aerial Photograph 2-6
Figure 2-4 Site Photo Key Map 2-7
Figure 2-5 Site Photographs 1-3 2-8
Figure 2-6 Site Photographs 4-6 2-9
Figure 2-7 Site Photographs 7-9 2-10
Figure 2-8 USGS Topographic Map 2-11
Figure 2-9 Surrounding Land Use and Development 2-12
Figure 2-10 General Plan Land Use Designations 2-13
Figure 2-11 Renaissance Specific Plan Land Use Map 2-19
Figure 2-12 Tentative Tract Map No. 19680 2-20
Figure 2-13 Roadway Cross-Sections 2-21
Figure 2-14 Precise Plan of Design No. 2411 2-22
Figure 4-1 Location Map 4-66
Figure 4-2 Existing Number of Through Lanes and Intersection Controls 4-69

LIST OF TABLES

Table Name and Number **Page**

Table 2-1	Surrounding Land Uses and Development	2-2
Table 2-2	General Plan Land Use Designations	2-2
Table 2-3	Renaissance Specific Plan Development Standards for Freeway Commercial Uses	2-15
Table 2-4	Precise Plan of Design Statistical Summary	2-17
Table 2-5	Permitted Hours of Construction Work	2-23
Table 2-6	Construction Activity Schedule	2-23
Table 2-7	Anticipated Construction Equipment to be Used	2-24
Table 4-1	Maximum Daily Emissions Thresholds	4-10
Table 4-2	Maximum Daily Peak Construction Emissions Summary	4-11
Table 4-3	Summary of Operational Emissions – Summer Scenario	4-12
Table 4-4	Summary of Operational Emissions – Winter Scenario	4-12
Table 4-5	Project Construction Emissions vs. RSP Final EIR Emissions	4-14
Table 4-6	Project Build-Out Operational Emissions vs. RSP Final EIR	4-14
Table 4-7	Localized Significance Summary – Site Preparation Activity	4-15
Table 4-8	Localized Significance Summary – Grading Activity	4-16
Table 4-9	Noise Significance Criteria Summary	4-46
Table 4-10	Unmitigated Construction Equipment Noise Levels Summary	4-47
Table 4-11	Construction Equipment Vibration Levels	4-48
Table 4-12	24-Hour Ambient Noise Level Measurements	4-49
Table 4-13	Off-Site Roadway Parameters	4-50
Table 4-14	Off-Site Project-Related Traffic Noise Impacts on the Existing Condition	4-52
Table 4-15	EA (2019) Off-Site Project-Related Traffic Noise Impacts	4-53
Table 4-16	EAPC (2019) Off-Site Project-Related Traffic Noise Impacts	4-54
Table 4-17	Significance Findings and the RSP Final EIR	4-56
Table 4-18	Intersection Analysis Locations	4-63
Table 4-19	Roadway Segment Analysis Locations	4-65
Table 4-20	Intersection LOS for RSP Final EIR EAPC (2020) vs. Proposed Project EAPC (2019) Conditions	4-71
Table 4-21	Freeway Mainline Segment Analysis	4-72
Table 4-22	Freeway Merge / Diverge Ramp Junction Analysis Locations	4-72
Table 4-23	Comparison of Recommended Improvements	4-77
Table 4-24	Renaissance Specific Plan Parking Standards	4-80
Table 4-25	2020 Project GHG NAT Scenario (Annual)	4-91
Table 4-26	2020 Project GHG Scenario (Annual)	4-91
Table 4-27	Summary of GHG Emissions for 2020 NAT vs. 2020 Project	4-92
Table 4-28	Project vs. RSP Final EIR GHG Emissions Comparison	4-93

LIST OF TECHNICAL APPENDICES

Appendix	Document/Reference Title
Appendix A:	Air Quality Impact Analysis
Appendix B	Greenhouse Gas Analysis
Appendix C	Noise Impact Analysis
Appendix D1	Traffic Impact Analysis
Appendix D2	Traffic Impact Analysis Supplement

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AAQS	Ambient Air Quality Standards
AB 32	California Assembly Bill 32, Global Warming Solutions Act of 2006
AB 1493	California Assembly Bill 1493 (Pavley)
ADT	Average Daily Traffic
AMSL	Above Mean Sea Level
APE	Area of Potential Effect
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
BUOW	Burrowing Owl
CAAQS	California Ambient Air Quality Standards
CAGN	Coastal California Gnatcatcher
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
cfs	cubic feet per second
CH_4	Methane
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
c.y.	cubic yards
CSU	California State University
CWA	Clean Water Act
dBA	A-weighted Decibels
DPM	Diesel Particulate Matter
EA	Environmental Assessment
EIR	Environmental Impact Report

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
Ft.	Feet
FTA	Federal Transit Administration
FWC	Fontana Water Company
GCC	Global Climate Change
GHG	Greenhouse Gas (es)
gpd	Gallons per Day
GWP	Global Warming Potential
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFC	Hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan
Kwh/yr	kilowatt hours per year
kBTU/yr	kilo-British Thermal Energy Units
ITE	Institute of Transportation Engineers
LACM	Natural History Museum of Los Angeles
LCA	Life Cycle Analysis
Leq	Equivalent continuous (average) sound level
LOS	Level of Service
LST	Localized Significance Threshold
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons per Day
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MRZ	Mineral Resource Zone
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
$MTCO_2e$	Million Tons of Carbon Dioxide Equivalents
NAHC	Native American Heritage Commission
N_2O	Nitrogen Dioxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NIOSH	National Institute of Occupational Safety and Health
No.	Number
N_20	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
NPDES	National Pollution Discharge Elimination System
PCE	Passenger Car Equivalent
PFC	Perfluorocarbons
$PM_{2.5}$	Fine Particulate Matter (less than 2.5 micrometers in diameter)
PM_{10}	Particulate Matter (between 2.5 and 10 micrometers in diameter)
PPD	Precise Plan of Design
PPM	Parts Per Million
PPV	Peak Particle Velocity
RCNM	Roadway Construction Noise Model
REC	Recognized Environmental Condition
RIRO	Right In-Right Out
RMA	Rialto Municipal Airport
RSP	Renaissance Specific Plan
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SARWQCB	Santa Ana Regional Water Quality Control Board
SBCFCD	San Bernardino County Flood Control District
SB 375	California Senate Bill 375, Sustainable Communities and Climate Protection Act of 2008
SB 1078	California Senate Bill 1078
SBKR	San Bernardino Kangaroo Rat
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Sothern California Edison

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
SCH	State Clearinghouse
s.f.	Square Foot or Square Feet
SO_X	Oxides of Sulfur
SP	Specific Plan
SPA	Specific Plan Amendment
SR-210	State Route 210
SWPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminant
TPM	Tentative Parcel Map
TSF	Thousand Square Feet
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WQMP	Water Quality Management Plan

1.0 INTRODUCTION

The City of Rialto (hereafter, "City") received an application from Sator Bros. Inc. (hereafter, "Project Applicant") for a Tentative Tract Map No. 19680 (TTM No. 19680), Conditional Development Permit (CDP) No. 781-787, and Precise Plan of Design (PPD No. 2411), to create a six-lot subdivision to allow for the development of an approximately 5.3-acre property with one (1) gas station and convenience store (C-Store) with car wash, two (2) quick service restaurant (QSR) (i.e., fast food restaurants) with drive-thru, one (1) sit down restaurant, and one (1) 100-room 4-story hotel within the 10.1-acre Planning Area 11 of the Renaissance Specific Plan. The Project proposes to leave the remainder parcel (16,293 s.f) (located south of W. Renaissance Parkway) vacant and undeveloped.

The proposed Project is the subject of analysis in this document pursuant to the California Environmental Quality Act (CEQA). Pursuant to CEQA Guidelines § 15367, the City of Rialto is the Lead Agency with the principal responsibility for considering the proposed Project for approval.

This Introduction discusses: 1) the requirements of CEQA; 2) The Renaissance Specific Plan (RSP) Final Environmental Impact Report (EIR) certified by the City of Rialto (hereafter, "*RSP Final EIR*") in compliance with CEQA; 3) the primary purpose of an EIR Addendum; 4) the standards for adequacy of an EIR Addendum pursuant to State CEQA Guidelines; 5) the format and content of this EIR Addendum; 6) changes made based on the RSP Amendment and Final Recirculated Subsequent EIR (SEIR) (environmental Assessment Review No. 16-55); 7) the City's processing requirements to consider the proposed Project for approval; 8) an explanation of the Environmental Checklist provided in Section 3.0 and Section 4.0 of this document; and 9) a summary of documents to be incorporated by reference and points of contact for the proposed Project.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA, a statewide environmental law contained in Public Resources Code §§ 21000-21177, applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment. The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies inform themselves of the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts when avoidance or reduction is feasible. It also gives other public agencies and the general public an opportunity to comment on the information. If significant adverse impacts cannot be avoided, reduced, or mitigated to below a level of significance, the public agency is required to prepare an EIR and balance the project's environmental concerns with other goals and benefits in a statement of overriding considerations.

1.2 RENAISSANCE SPECIFIC PLAN FINAL EIR

The Renaissance Specific Plan Final Environmental Impact Report (*RSP Final EIR*) (State Clearinghouse (SCH) No. 20060741021) was prepared by the City of Rialto (Lead Agency) in accordance with CEQA to evaluate the potential environmental impacts associated with implementation of the Renaissance Specific

Plan. The EIR was prepared in accordance with CEQA (California Public Resources Code, Section 21000, et. seq) and the CEQA Guidelines (California Code of Regulations, Title, 14, Section 15000, et seq) (City of Rialto, 2010a, p. 1-1) The *RSP Final EIR* was certified by the Rialto City Council on November 9, 2010. The City Council found that the *RSP Final EIR* adequately addressed the potential environmental impacts associated with planned buildout of the RSP, inclusive of the Project site that is the subject of evaluation in this document. An SEIR was prepared as an addendum to the Renaissance Specific Plan Final EIR and was approved in November 2016. The location and setting of the Project site, previous approvals granted, and the proposed discretionary actions associated with the proposed Project evaluated in this EIR Addendum are further addressed in Section 2.0, *Project Description.*

The RSP is partially located on the former site of the Rialto Municipal Airport in the west central portion of the City of Rialto. The RSP is generally bordered on the north by Casmalia Street, on the south by Baseline Road, on the east by Ayala Drive, and on the west by Tamarind Avenue. State Route 210 (SR-210) traverses the northern portion of the RSP. The approved RSP is entitled for a total of approximately 16.2 million square feet (s.f.) of business and commercial uses (835,000 s.f. of which was existing and expected to remain), 1,667 residential units, one (1) school, one (1) community park, and multiple neighborhood parks. The RSP covers an area of approximately 1,445.3 gross acres. (City of Rialto, 2010a, p. 1-1)

The *RSP Final EIR* found the following effects to be significant and unavoidable:

- Air Quality: Construction and operational emissions;
- Air Quality: Inconsistency with Air Quality Management Plan;
- Air Quality: Cumulative air quality emissions;
- Noise: Cumulative and project level vehicular noise off site (permanent increase);
- Traffic: Freeway segments from project and cumulative traffic;
- Greenhouse Gas Emissions (Climate Change): Generation of GHG emissions; and
- Greenhouse Gas Emissions (Climate Change): Conflict with applicable plans.

The *RSP Final EIR* found the following effects to be less than significant with the incorporation of mitigation:

- Air Quality: Exposure of sensitive receptors to substantial pollutant concentrations (health risk);
- Biological Resources: Modification of Coastal California Gnatcatcher habitat;
- Biological Resources: Modification of San Bernardino Kangaroo Rat habitat;
- Biological Resources: Modification of Burrowing Owl habitat;
- Biological Resources: Construction during bird nesting season;
- Biological Resources: Riparian habitat;
- Cultural Resources: Damage to prehistoric archaeological resources;
- Cultural Resources: Damage to historic resources;
- Cultural Resources: Damage to paleontological resources;
- Geology and Soils: Exposure of persons or structures to seismic hazards;

- Geology and Soils: Erosion during construction;
- Hazards and Hazardous Materials: Removal and disposal of contaminated soils during construction;
- Hydrology and Water Quality: Storm water discharge requirements and water quality;
- Hydrology and Water Quality: Drainage facility capacity;
- Noise: Expose persons or generate noise levels in excess of established standards during construction and operations;
- Noise: Construction-related and operation-related groundborne vibration;
- Noise: Result in substantial permanent increase in ambient noise levels;
- Noise: Result in substantial temporary or periodic increase in ambient noise levels;
- Traffic: Conflict with the performance of the circulation system (cause an increase in traffic, which is substantial in relation to existing traffic load); and
- Traffic: Conflict with an applicable Congestion Management Plan (exceed, either individually or cumulatively, an established level of service).

Implementation of the mitigation measures identified in the *RSP Final EIR* were determined to reduce the potentially significant impacts identified above to below a level of significance. Because this document is an EIR Addendum, mitigation measures identified in the *RSP Final EIR* are hereby incorporated for the proposed Rialto Renaissance project.

The *RSP Final EIR* determined that buildout of the RSP would have a less than significant impact or no impact on the following environmental issues or topical areas:

- Aesthetics
- Agriculture
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities

1.3 RENAISSANCE SPECIFIC PLAN SUBSEQUENT EIR

A Subsequent EIR (SEIR) was prepared for the Renaissance Specific Plan EIR an amendment to the Specific Plan. The SEIR was circulated for public review on July 16, 2016 and was certified in November 2016. The amendment to the Renaissance Specific Plan accommodated the relocation of business and industrial uses to the west of Linden Avenue, relocating all residential land uses and the public park to the east of Linden Avenue, implemented the Renaissance Marketplace Retail development in the northeastern segment of the Specific Plan area, and accommodated an industrial/warehouse development in the central segment of the Specific Plan area. The analysis included Subsequent EIR was expressly limited to the portions of the Specific Plan that were subject to the Specific Plan Amendment. Planning Area 11, which is the portion

of the Specific Plan that the proposed Project would occur within, was not located within or adjacent to the portions of the Specific Plan subject to the amendment.

1.4 CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

The CEQA Guidelines allow for the updating and use of a previously certified EIR for projects that have changed or are different from the previous project or conditions analyzed in the certified EIR. In cases where changes or additions occur with no new significant environmental impacts, an Addendum to a previously certified EIR may be prepared. See CEQA Guidelines § 15164.

The following describes the requirements of an Addendum, as defined by CEQA Guidelines § 15164:

a. The lead agency or responsible agency shall prepare an Addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in § 15162 calling for preparation of a Subsequent EIR have occurred.

b. An Addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in § 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
c. An Addendum need not be circulated for public review but can be included in or attached to the Final EIR.

d. The decision-making body shall consider the Addendum with the Final EIR prior to making a decision on the project.

e. A brief explanation of the decision not to prepare a Subsequent EIR pursuant to § 15162 should be included in an Addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

As noted above, CEQA Guidelines § 15164(a) and (b) allow for the preparation of an Addendum if none of the conditions described in § 15162 are met. CEQA Guideline § 15162 describes the conditions under which a Subsequent EIR must be prepared, as follows:

a. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of environmental effects or a substantial increase in the severity of previously identified significant effects;

b. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

c. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

1. The project will have one or more significant effects not discussed in the previous EIR;
2. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
3. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternatives; or
4. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If none of these circumstances are present, and only minor technical changes or additions are necessary to update the previously certified EIR, an Addendum may be prepared. *See* CEQA Guidelines § 15164. As described in detail herein, none of the above circumstances that warrant the preparation of a Subsequent EIR are present.

The City has determined that an Addendum to the *RSP Final EIR* should be prepared, rather than a Supplemental or Subsequent EIR, based on the following facts:

a. As demonstrated in the accompanying Environmental Checklist Form and its associated analyses (refer to Sections 3.0 and 4.0, respectively), the proposed Project would not require major revisions to the previously-certified *RSP Final EIR* because the Project would not result in any new significant impacts to the physical environment nor would it create substantial increases in the severity of the environmental impacts previously disclosed in the *RSP Final EIR*. In summary, the proposed Project consists of a Tentative Tract Map and Precise Plan of Design for Planning Area 11 of the RSP, encompassing approximately 5.3 acres. The area of physical disturbance would be identical. As such, there would be no new environmental effects or a substantial increase in the severity of previously identified significant effects as a result of the proposed Project. Thus, the proposed Project would not require major revisions to the previously-certified *RSP Final EIR.*

b. Subsequent to the certification of the RSP Final EIR, no substantial changes in the circumstances under which the Project would be undertaken have occurred. The physical conditions of the Project site (RSP Planning Area 11) and the immediately surrounding area are substantially the same as they were at the time the RSP Final EIR was certified. To-date, the RSP area has been building out in the general manner as called for by the approved RSP. No substantial changes in circumstance are known to the City of Rialto that would require the preparation of a Supplemental or Subsequent EIR for the development Planning Area 11.

c. Subsequent to the certification of the RSP Final EIR, no new information of substantial importance has become available which was not known at the time the RSP Final EIR was prepared.

d. The Project's discretionary actions would not result in any new or substantially more severe significant environmental impacts beyond those disclosed in the RSP Final EIR. The Project would reduce impacts under the topic areas of air quality, greenhouse gas (GHG) emissions, noise, and transportation/traffic. The area of physical disturbance would be identical. As such, there would be no new environmental effects or a substantial increase in the severity of previously identified significant effects as a result of the proposed Project.

e. Subsequent to the certification of the RSP Final EIR, no new mitigation measures or alternatives have been identified that were infeasible at the time the RSP Final EIR was certified and that would substantially reduce the RSP's significant unavoidable impacts to air quality, noise, GHG emissions (climate change) and traffic.

f. Subsequent to the certification of the RSP Final EIR, no new mitigation measures or alternatives that are considerably different from those analyzed in the RSP Final EIR have been identified to reduce the RSP's significant unavoidable impacts to air quality, noise, GHG emissions (climate change) and traffic.

g. Technical reports that evaluate the proposed Project were prepared for the subject areas of air quality, greenhouse gas (GHG), noise, and transportation/traffic. Copies of these reports are contained within the appendix of this document. These technical reports do not identify any new impacts or substantial increases in impacts to the environment beyond that which was disclosed in the RSP Final EIR.

Based on the above facts and substantial evidence in the Project's administrative record, the City of Rialto determined that an Addendum to the previously certified *RSP Final EIR* is the appropriate type of CEQA document to prepare for the proposed Project.

The applications were filed by the Project Applicant with the City of Rialto in 2015, and technical analysis associated with the preparation of this document was initiated in 2015. Accordingly, the conditions as they occurred in 2015 are used as the baseline for purposes of the environmental analysis contained within this document.

1.5 TYPE OF CEQA COMPLIANCE DOCUMENT AND LEVEL OF ANALYSIS

This document is an Addendum to the previously certified *RSP Final EIR* (SCH No. 20060741021). As such, this Addendum analyzes the potential environmental effects of the proposed Project as compared to the effects identified in the certified *RSP Final EIR*. This Addendum also reviews new information, if any, of substantial importance that was not known and could not have been known with the exercise of reasonable due diligence at the time the *RSP Final EIR* was certified. This evaluation includes a determination as to whether the changes proposed for the Project would a) result in any new significant impact; b) result in a more severe impact; c) result in a new ability to substantially reduce a significant impact; or d) result in no substantial change from the previous analysis of the *RSP Final EIR*.

CEQA Guidelines § 15168(a) states that a Program EIR is appropriate for a series of actions that can be characterized as one large project and are related either:

1) Geographically,
2) A logical parts *[sic]* in the chain of contemplated actions,
3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

CEQA Guidelines § 15168(c) states that subsequent activities undertaken pursuant to a Program EIR must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared. Pursuant to CEQA Guidelines § 15168(c)(4), "Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the Program EIR."

1.6 FORMAT AND CONTENT OF THIS EIR ADDENDUM

The following components comprise the EIR Addendum in its totality:

a. This *Introduction* (Section 1.0) and the *Project Description* (Section 2.0).

b. The completed Environmental Checklist Form and its associated analyses (Sections 3.0 and 4.0), which conclude that the proposed Project would not result in any new significant environmental impacts or substantially increase the severity of environmental impacts beyond the levels disclosed in the *RSP Final EIR*.

c. Five (5) technical reports that evaluate the proposed Project, which are attached as EIR Addendum Technical Appendices A-D2.

Appendix A:	Air Quality Impact Analysis
Appendix B:	Greenhouse Gas Analysis
Appendix C:	Noise Impact Analysis
Appendix D1:	Traffic Impact Analysis
Appendix D2:	Traffic Impact Analysis Supplement

1.7 PREPARATION AND PROCESSING OF THIS EIR ADDENDUM

The City of Rialto is the Lead Agency as set forth in CEQA Guidelines § 21067 and is responsible for reviewing and approving this Addendum to the *RSP Final EIR* based on the City's independent judgement The City will consider the following discretionary approvals for the proposed Rialto Renaissance Project:

- The adoption of a Resolution recommending approval of the Addendum to the previously certified *RSP Final EIR* for the proposed Project;
- The approval of CDP No. 2015-2597, 2015-2598, 2015-2599, 2015-2600, 2015-2601, 2015-2602
- The approval of TTM No. 19680
- The approval of a PPD No. 2241 (Case No. 2015-2604).

This EIR Addendum and its technical appendices will be forwarded, along with the previously certified *RSP Final EIR*, to the City of Rialto Planning Commission and City Council for review as part of their deliberations concerning the proposed Project. A public hearing(s) will be held before the City of Rialto Planning Commission to evaluate the proposed Project and the adequacy of this EIR Addendum. Public comments will be heard at the hearing(s). At the conclusion of the public hearing(s), the Planning Commission will provide a recommendation to the City Council as to whether to approve, approve with modifications, or deny approval of the proposed Project. Following conclusion of the hearing(s) before the City of Rialto Planning Commission, an additional public hearing(s) will be held before the City of Rialto City Council to consider the proposed Project and the adequacy of this Addendum to the *RSP Final EIR*, at which time public comments will be heard. At the conclusion of the public hearing process, the City Council will take action on the proposed Project.

1.8 INITIAL STUDY CHECKLIST

The City of Rialto prepared the proposed Project's Initial Study Checklist as suggested by CEQA Guidelines §§ 15063(d)(3) and 15168(c)(4). The CEQA Guidelines include a suggested checklist to indicate whether the conditions set forth in its § 15162, which would require a subsequent or supplemental EIR, are met and whether there would be new significant impacts resulting from the project not examined in the Program EIR. The checklist is found in Section 3.0 of this document. Following the checklist, Section 4.0 includes an explanation and discussion of each answer on the form.
There are four possible responses to each of the environmental issues included on the checklist:

- **New Significant Impact**. This response is used to indicate when the Project resulted in changes to such an extent that major revisions of the *RSP Final EIR* are required due to the presence of new significant environmental effects.

- **More Severe Impacts**. This response is used to indicate when the circumstances under which the Project is undertaken have changed to such an extent that major revisions of the *RSP Final EIR* are required due to the fact that the severity of previously identified significant effects would substantially increase.

- **New Ability to Substantially Reduce Significant Impact**. This response is used to indicate when new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the *RSP Final EIR* was certified, indicates that there are new mitigation measures or alternatives available to substantially reduce significant environmental impacts of the Project, but the Project proponent declines to adopt the mitigation measure(s) or alternative.

- **No Substantial Change from Previous Analysis**. This response is used to indicate when the *RSP Final EIR* adequately addressed an environmental effect, and the proposed Project would not create a new impact or substantially increase the severity of the previously identified environmental impact.

The Initial Study Checklist and accompanying explanation of checklist responses (see Sections 3.0 and 4.0) provide the information and analysis necessary to assess relative environmental impacts of the current Project in the context of environmental impacts addressed in the previously certified *RSP Final EIR.* In doing so, the City will determine the extent of additional environmental review, if any, for the current Project.

1.9 EXISTING DOCUMENTS INCORPORATED BY REFERENCE

State CEQA Guidelines §§ 15150 and 15168(c)(3) and (d)(2) permit and encourage that an environmental document incorporates by reference other documents that provide relevant data. The documents listed in Section 5.0, *References*, as incorporated documents are hereby incorporated by reference, and the pertinent material is summarized as needed within this EIR Addendum. All documents incorporated by reference are available for review at the City of Rialto Development Services Department, Planning Division; 150 South Palm Avenue, Rialto, CA 92376.

1.10 POINTS OF CONTACT

The Lead Agency for this environmental document is the City of Rialto. Any questions about the preparation of this EIR Addendum, its assumptions, or its conclusions should be referred to:

Gina Gibson, Planning Manager
City of Rialto
Development Services
Planning Division
150 South Palm Avenue
Rialto, CA 92736

2.0 PROJECT DESCRIPTION

This section provides all of the information required by CEQA Guidelines §15124, including: a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; a list of government agencies that are expected to be involved in the Project's decision-making processes; a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

2.1 PROJECT SETTING AND LOCATION

The Project site consists of approximately 5.3 acres in the west central portion of the City of Rialto, San Bernardino County, CA (see Figure 2-1, *Regional Map*). From a regional perspective, the Project site is located west of the City of San Bernardino, northeast of the City of Colton, and east of the City of Fontana. The Project site is located directly south of State Route 210 (SR-210), 4.0 miles east of Interstate 15 (I-15), 6.25 miles west of I-215, and approximately 4.5 miles north of I-10. In a local context, as shown on Figure 2-2, *Vicinity Map and* Figure 2-3*, Aerial Photograph,* the Project site is located at the southwest corner of Alder Avenue and the SR-210 Freeway.

The Project site is an approximately 5.3-acre piece of land that is vacant and undeveloped under existing conditions. The Project consists of three (3) parcels of land (Accessor Parcel Numbers (APNs): 0240-191-034, 0250-191-035, and 0240-191-043). As shown on Figure 2-8, *USGS Topographic Map,* the property gently slopes in elevation from approximately 519 feet above mean sea level (ASML) in the northwest corner of the property to approximately 508 feet AMSL in the southeast corner of the property.

The Project site's surrounding land uses and zoning and General Plan land use designations are identified in Table 2-1,*Surrounding Land Uses and Development.* Table 2-2, *General Plan Land Use Designations*, and depicted on Figure 2-9,

Surrounding Land Use and Development, and Figure 2-10, *General Plan Land Use Designations*. To the north of the Project site is the Alder Avenue off-ramp from the SR-210 Freeway and the mainline of the SR-210 Freeway, with the County of San Bernardino Mid-Valley Landfill beyond the freeway. East of the Project site is Alder Avenue and large-scale warehouse buildings. Immediately south of the Project site is W. Renaissance Parkway, south and southwest of which are public facilities, and two warehouse buildings totaling approximately 2,060,000 s.f. in size. Located to the west of the Project site is vacant undeveloped land. The current zoning of the Project site and the properties to the east is Freeway Commercial (FC) within the RSP. The zoning of the properties to the south is Planned Industrial Development (I-PID) within the Rialto Specific Plan, and the properties to the west are zoned Freeway Commercial (FC). A photographic key map and site photographs depicting the existing conditions at the Project site are provided in*, Figure 2-4, Site Photo Key Map, Figure 2-5, Site Photographs 1-3, Figure 2-6, Site Photographs 4-6, and Figure 2-7, Site Photographs 7-9.*

Table 2-1 Surrounding Land Uses and Development

Location	Existing Land Use	Zoning
Project Site	Vacant Land	RSP- Freeway Commercial (FC)
North	SR-210 Off-Ramp and SR-210	N/A (SR-210)
East	Vacant Land	N/A (Alder Avenue)
South	Vacant Land, Public Facilities, Industrial Warehouses	RSP-Freeway Commercial. Planned Industrial Development (I-PID)
West	Vacant Land	RSP-Freeway Commercial (FC)

Table 2-2 General Plan Land Use Designations

Location	General Plan Designations
Project Site	Specific Plan
North	SR-210 Freeway/interchange and Specific Plan
East	Specific Plan
South	Business Park
West	Specific Plan

2.2 STATEMENT OF OBJECTIVES

The fundamental purpose of the proposed Project is to allow for the development of an approximately 5.3-acre property with one (1) gas station and convenient store (C-Store) with car wash, two (2) quick service restaurants (QSR) (i.e., fast food restaurants) with drive-thru lanes, (1) sit down restaurant; one (1) 100-room 4-story hotel; and remaining parcels to the west of the Project site that will remain vacant and undeveloped at this time. This partial development of Planning Area 11 is in full compliance with the stated goals, objectives and policies of the Renaissance Specific Plan. The specific objectives of the proposed Project are described below.

- To implement the development of a portion of Planning Area 11 of the Renaissance Specific Plan with a 100-room hotel, two quick service restaurants with drive-thru lanes, one sit down restaurant, and a gas station with a car wash and convenient store.

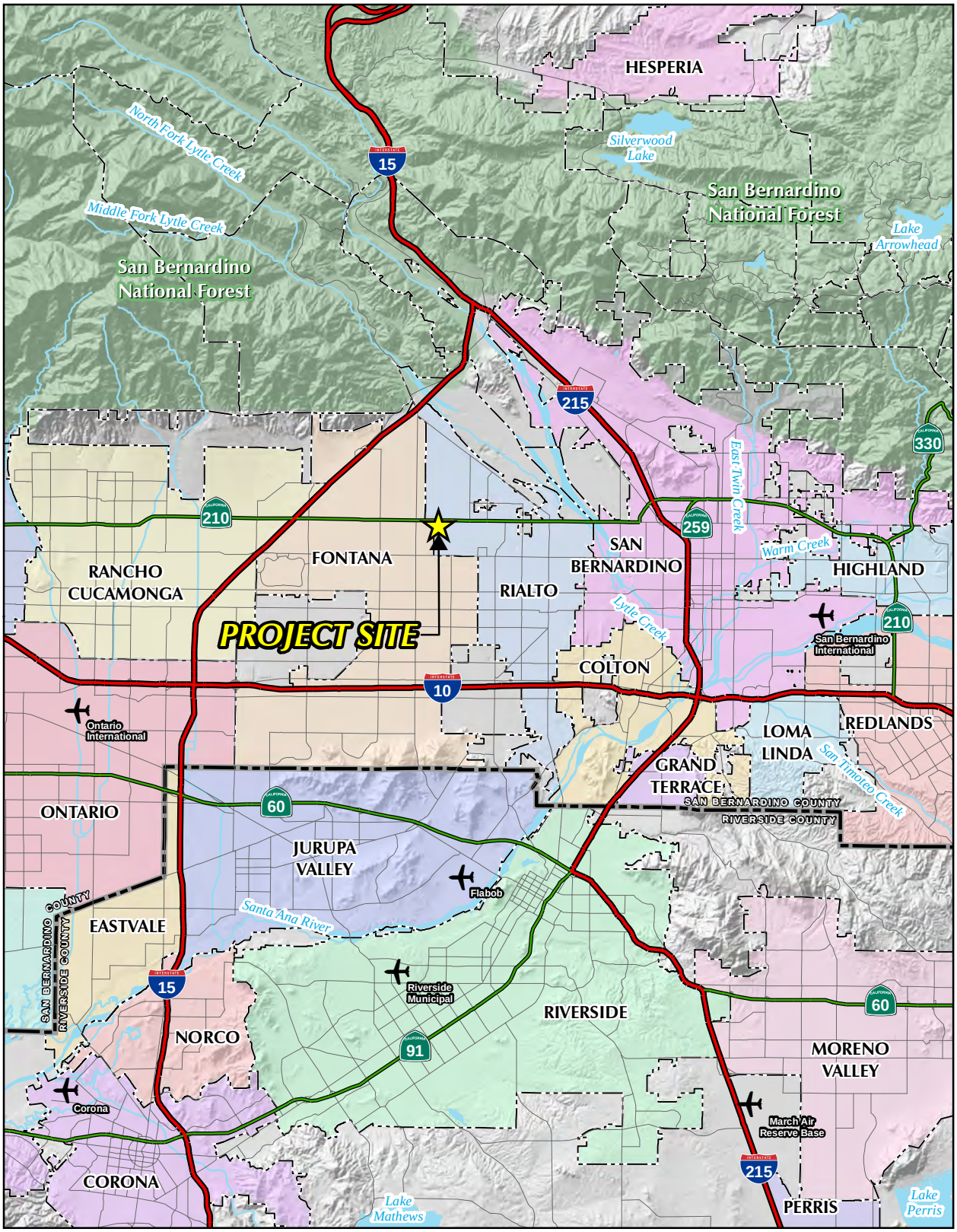
- To provide new retail opportunities for residents of and visitors to the City of Rialto.

- To develop commercial uses on the Project site that will take advantage of the adjacent I-210 freeway and complement existing uses in the Project area, to help build a robust, employment-based economy in the City of Rialto.

- To develop and maximize the buildout potential of a vacant and undeveloped property in the Renaissance Specific Plan that has access to available infrastructure.

- To attract new employment-generating businesses to the Renaissance Specific Plan area; thereby enhancing the City's existing job base and reducing the needs for members of the local workforce to commute outside of the area for employment.

- To develop a vacant and undeveloped property with Freeway Commercial retail uses that would attract businesses that can diversify the City's employment base and improve its jobs-to-housing balance.

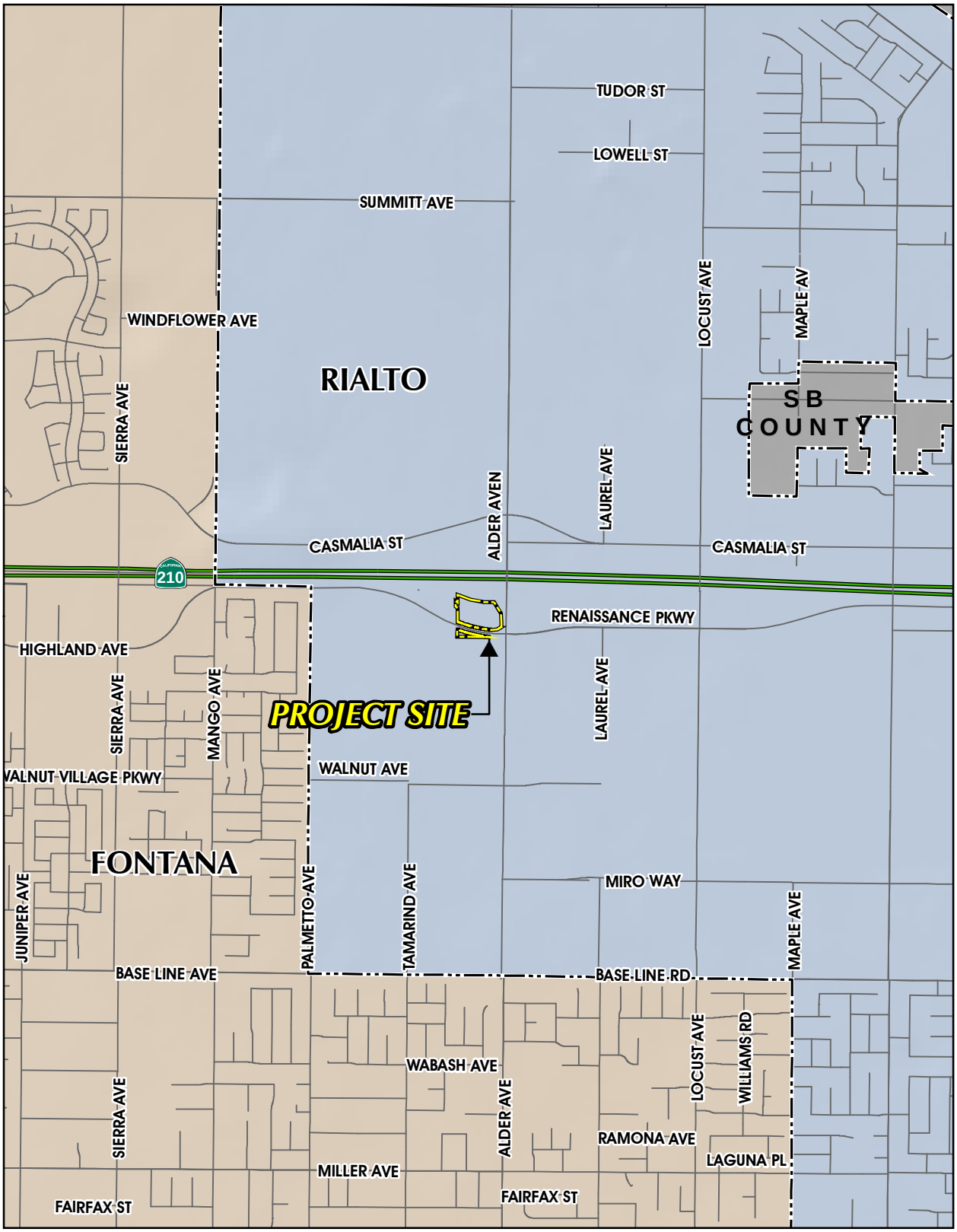


Source(s): ESRI, RCTLMA (2016), SANBAG (2016)

0 1 2 4 Miles

FIGURE 2-1

Regional Map



Source(s): ESRI, SANBAG (2016)

0 500 1,000 2,000 Feet

FIGURE 2-2

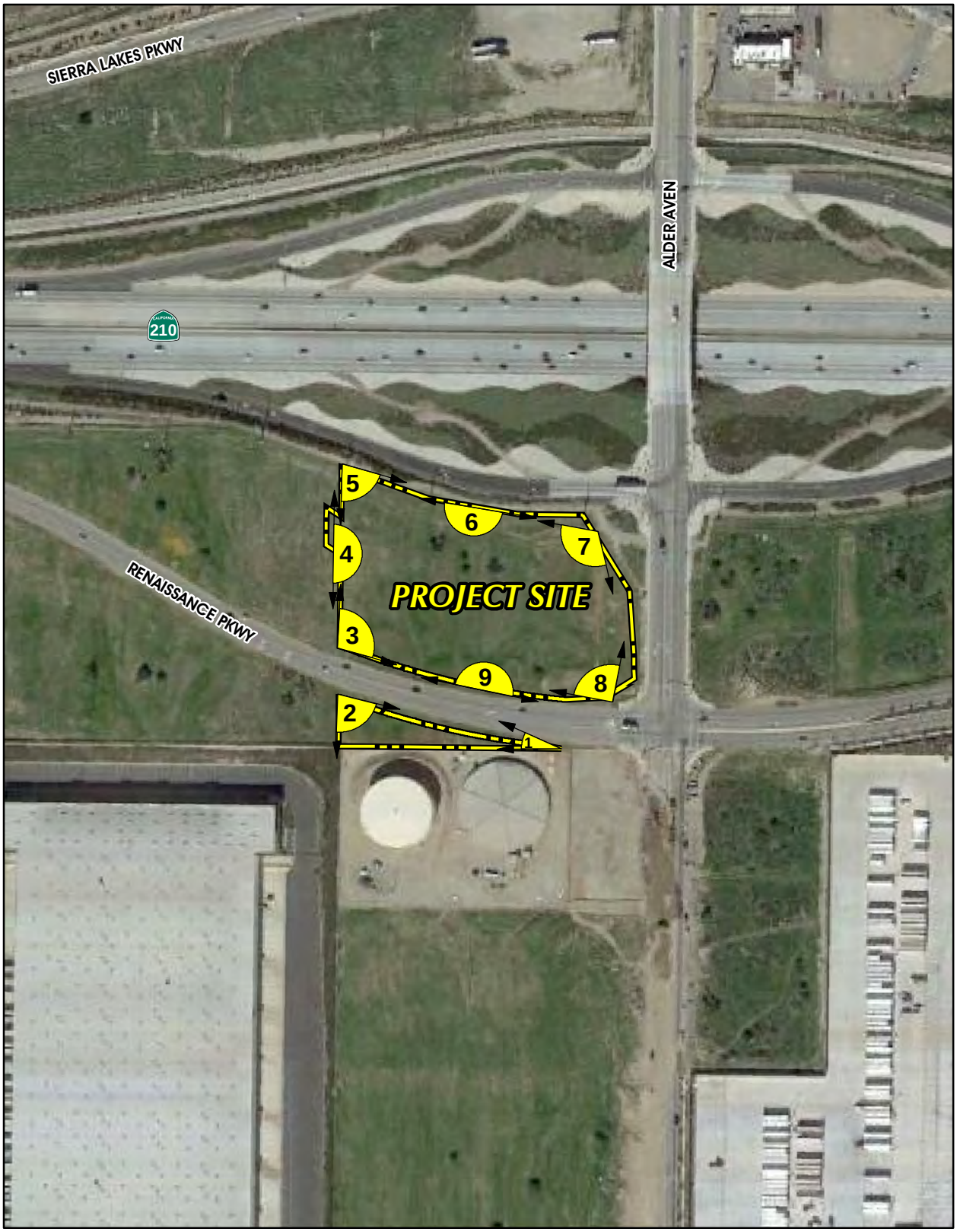
Vicinity Map

Source(s): ESRI, Google Earth Aerial (2016), SANBAG (2016)

0 250 500 1,000 Feet

FIGURE 2-3

Aerial Photograph



Source(s): ESRI, Google Earth Aerial (2016), SANBAG (2016)

0 75 150 300 Feet

FIGURE 2-4

Site Photo Key Map

WEST WEST

Site Photograph #1: From southeastern corner of Project Site, south of Renaissance Pkwy, looking west.

EAST SOUTH

Site Photograph #2: From southwestern portion of Project Site, south of Renaissance Pkwy, looking east to south.

NORTH EAST

Site Photograph #3: From southwest portion of Project Site, north of Renaissance Pkwy, looking north to east.

FIGURE 2-5

NOT TO SCALE

Site Photographs 1-3

NORTH

SOUTH

Site Photograph #4: From western edge of Project Site, looking north to south.

EAST

SOUTH

Site Photograph #5: From northwestern corner of Project Site, looking east to south.

EAST

WEST

Site Photograph #6: From norther edge of Project Site, looking east to west.

FIGURE 2-6

NOT TO SCALE

Site Photographs 4-6

SOUTH

WEST

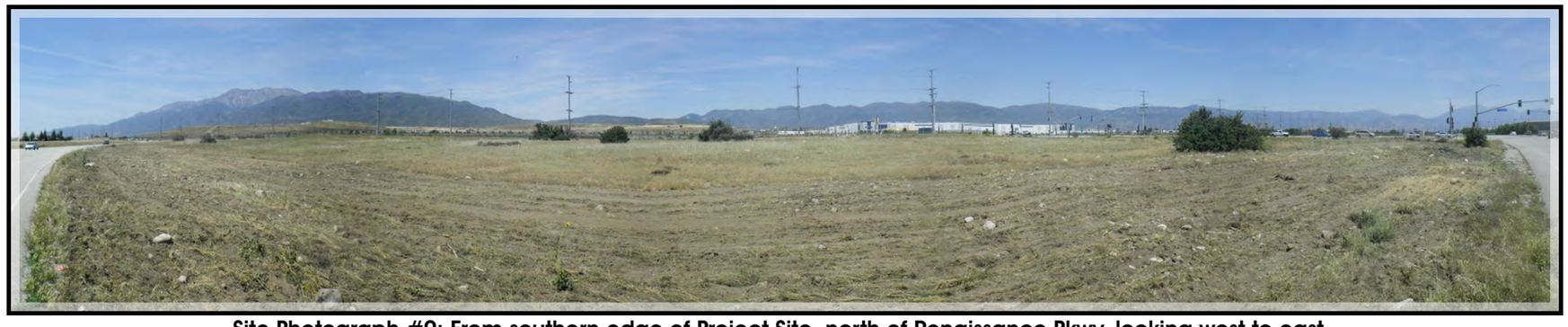
Site Photograph #7: From northeastern corner of Project Site, looking southeast to west.

WEST

NORTH

Site Photograph #8: From southeastern corner of Project Site, north of Renaissance Pkwy, looking west to north.

WEST



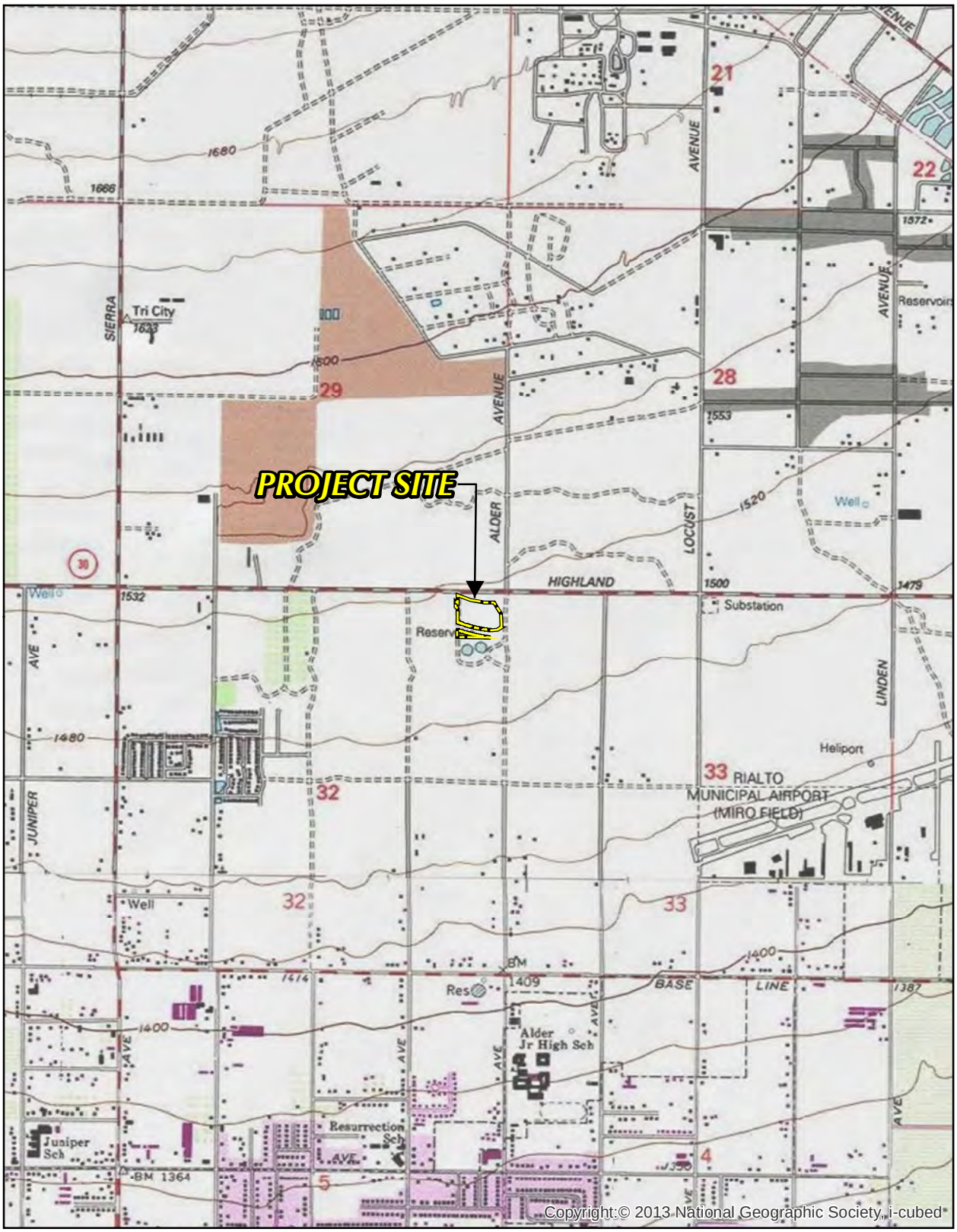
EAST

Site Photograph #9: From southern edge of Project Site, north of Renaissance Pkwy, looking west to east.

FIGURE 2-7

NOT TO SCALE

Site Photographs 7-9



Source(s): ESRI, USGS (2013)

FIGURE 2-8

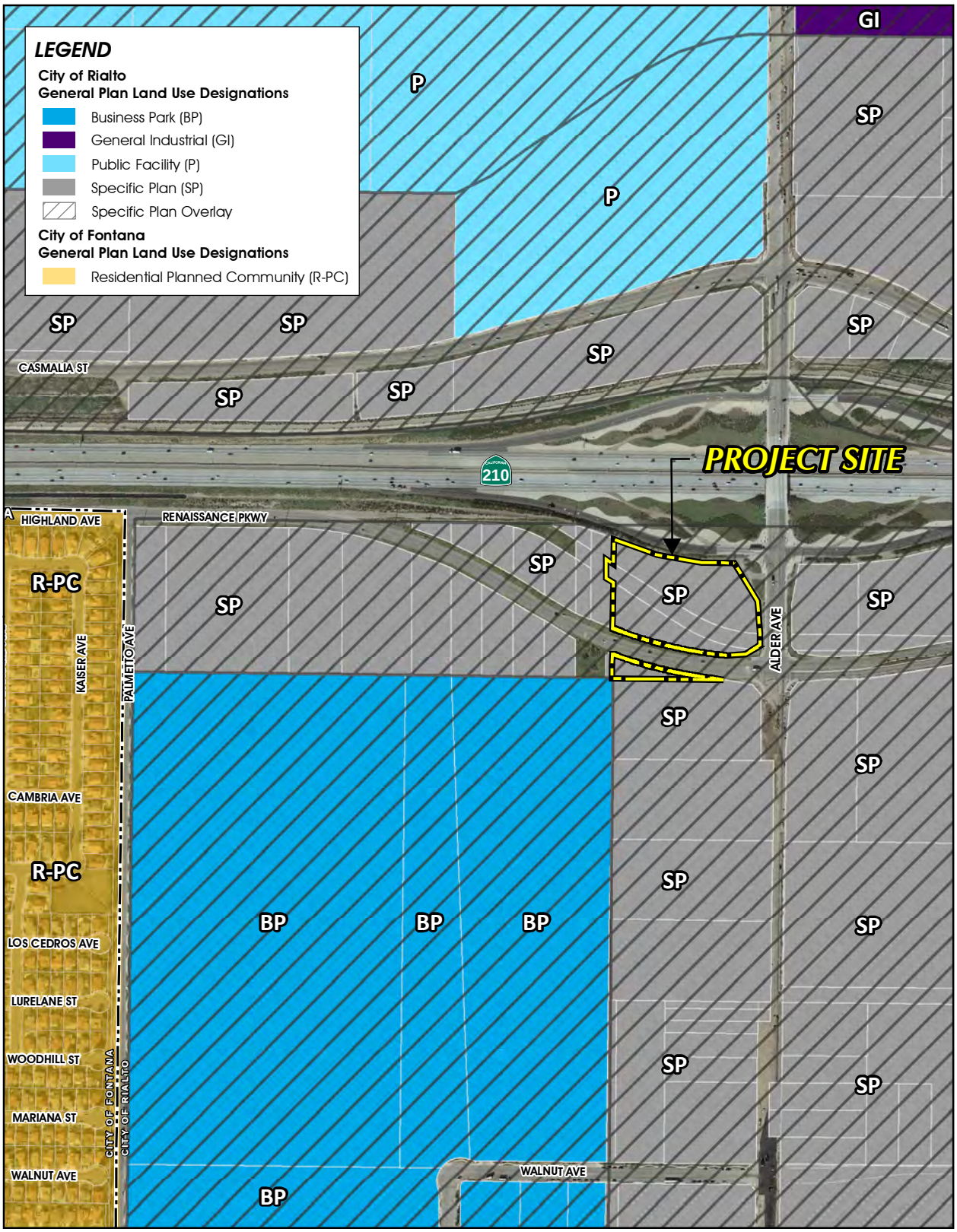
USGS Topographic Map

Source(s): ESRI, Google Earth Aerial (2016), SANBAG (2016)

0 150 300 600 Feet

FIGURE 2-9

Surrounding Land Use and Development



Source(s): City of Rialto (2016), City of Fontana (2015), ESRI, Google Earth Aerial (2016), SANBAG (2016)

FIGURE 2-10

General Plan Land Use Designations

2.3 PROPOSED DISCRETIONARY ACTIONS

The Project Applicant has filed the following applications for the proposed Project:

- Tentative Tract Map. A request to consolidate 3 parcels into one tract map on approximately 5.3 acres.

- Precise Plan of Design. A request to allow for the development of one (1) gas station and convenience store (C-Store) with car wash, two (2) quick service restaurants (QSR) (i.e., fast food restaurant) with drive-thru lanes, one (1) 100-room 4-story hotel, and one (1) high turnover sit-down restaurant. The Project proposes to leave the remainder parcel (16,293 s.f) (located south of W. Renaissance Parkway) vacant.

- Environmental Assessment Review.

The City of Rialto is the Lead Agency as set forth in CEQA § 21067 and is responsible for reviewing and approving this Addendum to the *RSP Final EIR (SCH No. 2006071021)*. The City will consider the following discretionary approvals for the Rialto Renaissance project.

- The adoption of a Resolution recommending approval of the Addendum to the previously certified *RSP Final EIR* for the proposed Project;

- The approval of CDP No. 2015-2597, 2015-2598, 2015-2599, 2015-2600, 2015-2601, 2015-2602

- The approval of TTM No. 19680

- The approval of a PPD No. 2241 (Case No. 2015-2604).

Additional permits may be required upon review of Project construction documents. Other permits that may be required for the proposed Project include but are not limited to the issuance of encroachment permits for driveways, sidewalks, and utilities; security and parking area lighting; grading permits, building permits; and permits for new utility connections.

2.3.1 Renaissance Specific Plan

As depicted on Figure 2-11, *Renaissance Specific Plan Land Use Map*, the Project site is located within Planning Area 11 (PA 11) of the RSP. The RSP designates the Project site as Freeway Commercial (FC). Freeway Commercial (FC) retail/office uses are described as retail uses serving the community and traveling public (retail, travel, services, restaurants, lodging, drug stores, home improvement centers, entertainment centers, health clubs, regional shopping centers, and automobile dealerships. (City of Rialto, 2010a, Table 3-3). The RSP Development Standards for Freeway Commercial (FC) uses are identified in Table 2-3, *Renaissance Specific Plan Development Standards for Freeway Commercial Uses*.

Table 2-3 Renaissance Specific Plan Development Standards for Freeway Commercial Uses

Standard	Freeway Commercial[6]
Maximum Intensity	
0-5 acres: Max. FAR [1, 11]	0.25
5-10 acres: Max. FAR [1, 11]	0.25
>10 acres: Max. FAR [1, 11]	0.25
Building Site Specifications	
Min. lot size	15,000 s.f.
Min. lot width[9]	100 ft.
Min. lot depth [9]	100 ft.
Min. landscape coverage [10]	10%
Front and Side Street Setbacks[2]	
Bldgs. < 100,000 sq. ft.	20 ft. avg. 15 ft. min.
Bldgs. > 100,000 sq. ft.	20 ft. avg. 15 ft. min.
Interior Side Setbacks[2]	
If adjacent to business uses	0 ft. or separated by 20 ft. plus 10 ft. for each additional floor
If adjacent to residential uses [4]	N/A
If adjacent to business uses/streets	15 ft. avg. 10 ft. min.
If adjacent to residential uses [4]	N/A
Rear Setbacks[2]	
If adjacent to business uses/streets	15 ft. avg. 10 ft. min.
If adjacent to residential uses [4]	N/A
Height[2]	
Max. height [5]	60 ft.
Max. stories	4
Other	
Building separation	0 ft. or 10 ft.

Note: All setbacks shall be measured from the property line or, if applicable, the back of landscape easement unless otherwise noted.

[1] Maximum nonresidential intensity may be increased with qualifying features as noted on Nonresidential Incentives section later in this Specific Plan. For purposes of determining maximum buildout, a target FAR of 0.4 was assumed in the Employment category and 0.5 in the Business Center category.

[2] See Table 3-9 for variations to the standards noted on this table.

[3] Zero feet setback if the building entrances and windows are oriented toward the street, otherwise 20-foot setback.

[4] If loading and unloading areas directly face residences, there shall be a minimum setback of 120 feet from the property line to the loading bay doors and a minimum building-to-building separation of 150 feet. Stated setbacks apply to situations where the loading doors do not directly face residences (e.g. side-on configuration).

[5] Maximum building height is defined as the height from finished grade to the top of the roof pitch or top of parapet, whichever is greater. An architectural projection such as a chimney or nonhabitable tower may exceed the maximum building height by 10 feet.

[6] Parcels within Planning Area 5 may be developed to the uses and standards of the Employment land use category and Planning Area 7 may accommodate those uses listed in the Corporate Center land use category.

[7] Planning Area 21 shall not develop in a single-line format, that is, as a typical strip commercial use. Development in Planning Area 21 shall be required to be developed as noted in Table 3-[9], Development and Design Variations.
[8] See Figure 2-2, Land Use Diagram, for the locations of the various densities.
[9] In some cases, when the minimum lot width and depth are multiplied together, they do not match the minimum lot size. This was done on purpose to allow flexibility in lot configurations; however, all lots must meet the minimum lot size, width, and depth standards.
[10] See the landscape provisions in the General Business Development Standards section for greater detail and definition.
[11] Maximum FAR's apply to those parcels that do not involve consolidations with other lots. See Table 3-10 in the Nonresidential Incentives section regarding the potential for the City to award FAR bonuses to projects that involve consolidation with other lots to increase their base lot size.
[12] For proposals within Planning Areas 60b or 60c larger than 500,000 square feet, see the EDC Review Procedure in RSP Section 7, Implementation.
(City of Rialto, 2010c, Development Standards-Business and Commercial Uses)

2.3.2 Tentative Tract Map No. 19680

A. General Description

As depicted on Figure 2-12, *Tentative Tract Map No. 19680*, TTM No. 19680 proposes to consolidate three (3) parcels of land into one tract to facilitate the development of one (1) gas station and convenience store (C-Store) with car wash, two (2) quick service restaurants ((i.e., fast food restaurants) with drive-thru lanes, one (1) 100-room 4-story hotel, and one (1) high turnover sit-down restaurant. The Project proposes to leave the remainder parcel (16,293 s.f) (located south of W. Renaissance Parkway) vacant. Refer to Subsection 2.3.3 for a discussion of the Project's Precise Plan of Design. Figure 2-13, *Roadway Cross-Sections*, depicts the Project's roadway cross-sections.

Street dedications would consist of 2,338 s.f. (0.054-acre) on the north side of W. Renaissance Parkway near the southwest property line and 1,850 s.f. (0.042-acre) on the south side of W. Renaissance Parkway near the northwestern boundary of the Project's remaining parcel.

B. Site Access

Regional access to the Project site would be provided by SR-210 via Alder Avenue. TPM No. 19680 provides access to the Project site via W. Renaissance Parkway. Driveway 1 would be located near the western portion of the Project site and would provide full access from W. Renaissance Parkway. Driveway 2 would be located near the east-central portion of the Project site and would provide right-in/right-out (RIRO) only access from W. Renaissance Parkway.

C. Utility Infrastructure and Off-Site Improvements

The RSP is served by three separate water districts. Specific to the Project site, the Fontana Water Company serves the area south of SR-210 and west of Linden Avenue. (City of Rialto, 2010a, pp. 3-19 and 3-20) The Project would connect to existing water lines within Renaissance Parkway in the vicinity of the Renaissance/Alder intersection.

Water and sewer service would be provided by the City of Rialto. The proposed Project would connect to existing off-site sewer lines that occur in the vicinity of the of the Renaissance/Alder Avenue intersection. The entire RSP would be connected to an existing sewer line that is located in Cactus Avenue, which extends southerly from Baseline Road in Cactus Avenue, easterly in Valley Boulevard, and southerly in Riverside Drive, and easterly in Santa Ana to the City of Rialto sewage treatment plant. (City of Rialto, 2010a, p. 3-20)

2.3.3 Precise Plan of Design

The proposed Project is required to be designed in accordance with the RSP Development and Design Standards. As depicted on Figure 2-14, *Precise Plan of Design No. 2241,* the Project Applicant proposes to construct (1) gas station and convenience store (C-Store) with car wash, two (2) quick service restaurants (i.e., fast food restaurants) with drive-thrus, one (1) 100-room 4-story hotel, and one (1) high turnover sit-down restaurant. The Project proposes to leave the remainder parcel (16,293 s.f) (located south of W. Renaissance Parkway) vacant. See Table 2-4, *Precise Plan of Design Statistical Summary,* for the statistical summary of PPD No. 2241. In addition to 231 parking spaces, PPD No. 2241 provides 3 spaces for loading and unloading.

Table 2-4 Precise Plan of Design Statistical Summary

Parcel	Site Area	Building Area	Parking Required	Parking Proposed	Uses
Parcel 1	50,332 s.f.	6.506 s.f.	20	33+16 under canopy	Gas station, carwash, and C-Store (1-story)
Parcel 2	36,564 s.f.	3,590 s.f.	47.87	38	QSR with Drive-thru (1-story)
Parcel 3	81,229 s.f.	63,000 s.f.	100	98	Hotel (100-rooms((4-story)
Parcel 4	16,007 s.f.	1,850 s.f.	24.67	10	QSR with Drive-Thru (1-story)
Parcel 5	27,937 s.f.	4,500 s.f.	36	36	Full-service restaurant (1-story)
Remainder Parcel	16,293 s.f.	----	----	--	N/A
Sub-Total	228,362 s.f.	79,446 s.f.	229	231	
Street Dedication	4,177 s.f. (1,850 s.f. + 2,338 s.f.)				
Total	232,550 s.f. (5.339 acre)				

B. Gas Station Components

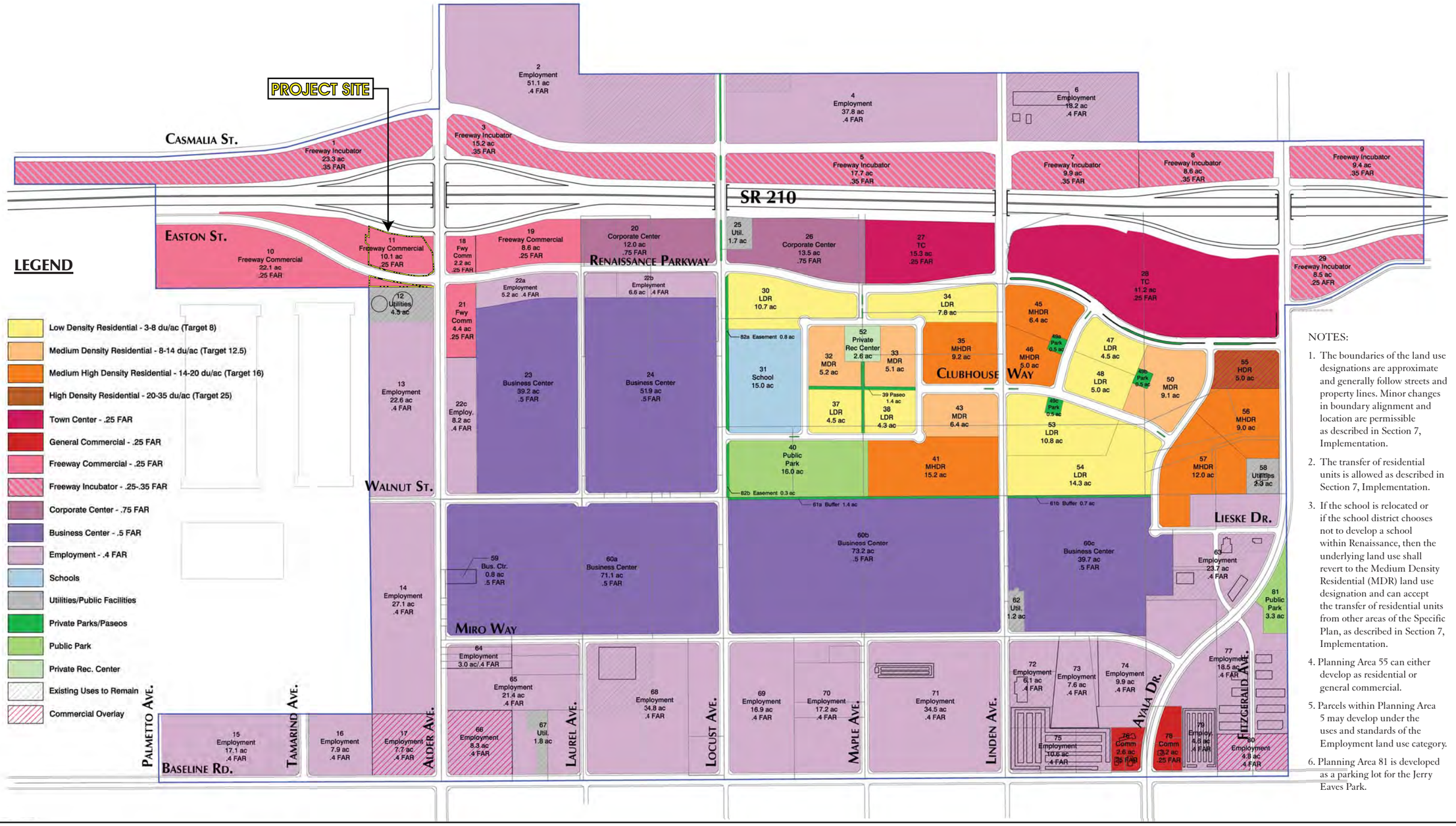
The gas station would include up to sixteen (16) fueling pumps under overhead canopies. Underground storage tanks (USTs) would be installed immediately south of the fueling pumps to store fuel, with UST access (for refilling) provided within the southerly drive aisle to accommodate fuel deliveries. The gas station would also include a 5,000-square foot convenience store and an automated drive-thru car wash.

C. Architecture and Signage

The Project's proposed final architecture, walls, and fencing design would be required to be consistent with the Design Guidelines as set forth in the *RSP* document. City monument signs would be provided near the intersection of W. Renaissance Parkway and Alder Avenue and on the south side of W. Renaissance Parkway. A monument sign would be provided in the southwestern portion of the Project site on the south side of the proposed restaurant and in the southeastern portion of the Project site near the gas station and C-Store.

D. Lighting

The Project's lighting features would be designed in accordance with the Design Guidelines as set forth in the RSP document. All streetlights and other outdoor lighting would be submitted to the City Development Services Department for plan check and would be required to comply with the relevant requirements of the City's General Plan and Development Code and current building codes. The RSP requires the preparation of a detailed lighting plan with the submittal of development applications and both the RSP and the City's zoning ordinance limits light source intensities adjacent to residential and non-residential uses. (City of Rialto, 2010a, pp. 4.1-12)



Source(s): City of Rialto (2010)

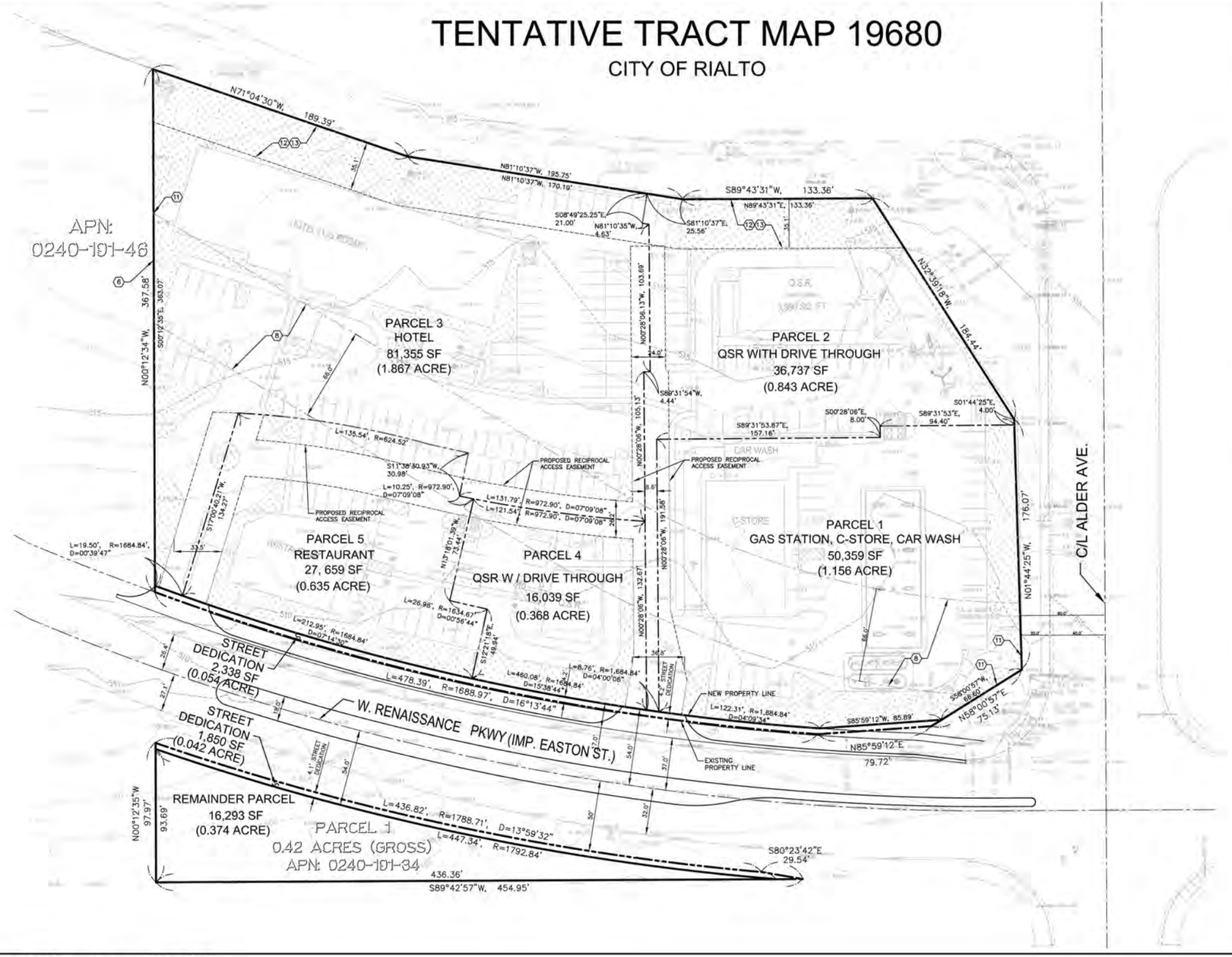
NOT TO SCALE

FIGURE 2-11

Renaissance Specific Plan Land Use Map

TENTATIVE TRACT MAP 19680

CITY OF RIALTO



GENERAL NOTES

PROJECT ADDRESS:	SW CORNER OF ALDER AVE & I-210 RIALTO, CA 91730
EXISTING LAND USE:	VACANT LAND
ASSESSOR PARCEL MAP NO:	0240-191-034, 035, & 043
ZONING:	IND-INDUSTRIAL ZONE
PROPOSED LAND USE:	COMMERCIAL
DEVELOPMENT AREA:	GROSS AREA: 232,550 SF (5.339 AC)
DATE MAP PREPARED:	AUGUST, 2016

UTILITY PURVEYORS:

ELECTRICITY
SOUTHERN CALIFORNIA EDISON CO.

GAS
SOUTHERN CALIFORNIA GAS CO.

SEWER & WATER
RIALTO WATER SERVICES
150 S. PALM AVE
RIALTO, CA 91730
909-820-2546

WATER
WEST VALLEY WATER DISTRICT
855 W BASELINE
RIALTO, CA 91730
909-875-1804

TRASH
EDCO DISPOSAL
1850 AUGA MANSA RD,
RIVERSIDE, CA 92509
909-877-1508

PLOTTED EASEMENT

(6) AN EASEMENT FOR WATER DITCH AND INCIDENTAL PURPOSES, RECORDED AUGUST 4, 1888 IN BOOK 81 OF DEEDS, PAGE 201.
IN FAVOR OF: J.D. LAKIN
AFFECTS: AS DESCRIBED THEREIN

7 AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES, RECORDED JANUARY 15, 1957 IN BOOK 4131, PAGE 511 OF OFFICIAL RECORDS.
IN FAVOR OF: FONTANA UNION WATER COMPANY
AFFECTS: AS DESCRIBED THEREIN

(8) ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM STATE HIGHWAY HAVE BEEN RELINQUISHED IN THE DOCUMENT RECORDED AUGUST 30, 1963 IN BOOK 5979, PAGE 725 OF OFFICIAL RECORDS.

(11) ABUTTER'S RIGHTS OF INGRESS AND EGRESS TO OR FROM STATE HIGHWAY HAVE BEEN RELINQUISHED IN THE DOCUMENT RECORDED FEBRUARY 8, 2005 AS INSTRUMENT NO. 2005-0095047 OF OFFICIAL RECORDS.

(12) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED APRIL 20, 2006 AS INSTRUMENT NO.2006-0270891 OF OFFICIAL RECORDS.
IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION
AFFECTS: AS DESCRIBED THEREIN

(13) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED MARCH 22, 2007 AS INSTRUMENT NO. 2007-0180261 OF OFFICIAL RECORDS.
IN FAVOR OF: THE PEOPLE OF THE STATE OF CALIFORNIA
AFFECTS: AS DESCRIBED THEREIN

LEGAL DESCRIPTION

PARCEL 1: (APN: 0240-191-34 AND 0240-191-35)
THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 1 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF RIALTO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND ON FILE IN THE DISTRICT LAND OFFICE.
EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED AUGUST 30, 1963 IN BOOK 5979, PAGE 725, OFFICIAL RECORDS.
ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION BY FINAL ORDER OF CONDEMNATION RECORDED MARCH 22, 2007 IN DOCUMENT NOS. 2007-0180261, 2007-0180275 AND RECORDED JULY 2, 2008 IN DOCUMENT NOS. 2008-300245 AND 2008-300246, ALL OF OFFICIAL RECORDS OF SAN BERNARDINO COUNTY.

PARCEL 2: (APN: 0240-191-43)
THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 1 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFICIAL GOVERNMENT PLAT THEREOF, IN THE CITY OF RIALTO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:
COMMENCING AT THE INTERSECTION OF THE WEST LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION WITH THE SOUTH LINE OF HIGHLAND AVENUE, BEING A LINE PARALLEL WITH AND DISTANT SOUTHERLY 9.143 METERS MEASURED AT RIGHT ANGLES FROM THE NORTH LINE OF SAID SECTION;
THENCE ALONG SAID WEST LINE SOUTH 0°12'35" EAST 49.321 METERS TO A POINT AT THE NORTHWEST CORNER OF THAT CERTAIN PARCEL DESCRIBED, IN PART, ON A DEED TO THE STATE OF CALIFORNIA AND RECORDED IN BOOK 5979 AT PAGE 725 OR O.R. AUGUST 30, 1963 AND THE POINT OF BEGINNING;
THENCE CONTINUING ALONG SAID WEST LINE SOUTH 0°12'35" EAST, 23.487 METERS;
THENCE SOUTH 59°07'38" EAST, 102.911 METERS TO A POINT ON A TANGENT CURVE CONCAVE TO THE NORTHEAST WITH A RADIUS OF 192.921 METERS;
THENCE ALONG SAID CURVE IN A SOUTHEASTERLY DIRECTION 93.671 METERS THROUGH A CENTRAL ANGLE OF 27°49'10";
THENCE ALONG COURSE "A" NORTH 58°00'53" EAST, 10.528 METERS;
THENCE ALONG COURSE "B" NORTH 1°44'25" WEST, 14.501 METERS TO A POINT ON A NON-TANGENT CURVE CONCAVE TO THE NORTHWEST A RADIAL BEARS OF NORTH 14°36'15" WEST;
THENCE ALONG SAID CURVE IN A WESTERLY DIRECTION 1.675 METERS THROUGH A CENTRAL ANGLE OF 15°44'48" TO A POINT OF COMPOUND CURVE CONCAVE TO THE NORTHEAST WITH A RADIAL BEARING OF NORTH 01°08'33" EAST AND A RADIUS OF 172.806 METERS;
THENCE ALONG SAID COMPOUND CURVE IN A NORTHWESTERLY DIRECTION 88.667 METERS THROUGH A CENTRAL ANGLE OF 29°43'49";
THENCE NORTH 59°07'38" WEST, 115.037 METERS TO THE POINT OF BEGINNING.

EASEMENT

AN EASEMENT FOR WATER DITCH PURPOSES RECORDED AUGUST 4, 1888 IN BOOK 81 PAGE 201 OF DEEDS. RIGHT OF WAY ALONG THE WESTERLY PROPERTY LINE, WIDTH NOT DESCRIBED IN EASEMENT DEED. THE TOPOGRAPHY SHOWN HEREON IS PER AN ACTUAL FIELD SURVEY PERFORMED ON APRIL 18 & 19 2014.

BASIS OF BEARING:

THE BEARINGS SHOWN HEREON ARE BASED ON THE CONSTRUCTION CENTERLINE OF ALDER AVENUE BEING N 00°19'21" W PER CALTRANS RIGHT-OF-WAY MAP NUMBER 66904-05.

OWNER/APPLICANT

MARK SATER/MIRA INC.
4300 EDISON AVENUE,
CHINO, CA 91710
TEL: 909-772-5898

BENCH MARK:

THE ELEVATIONS SHOWN HEREON ARE BASED ON CALTRANS "AS-BUILT" PLANS FIELD UNDER CONTRACT NO.08-443701, ADD TOPO MAP ELEVATIONS BY 1000.00 TO MATCH CALTRANS PLAN ELEVATIONS.

CIVIL ENGINEER

WINSTON LIU, PE
W&W LAND DESIGN CONSULTANTS
2335 W. FOOTHILL BLVD, SUITE 1,
UPLAND, CA 91786
TEL: 909-608-7118

LEGEND:

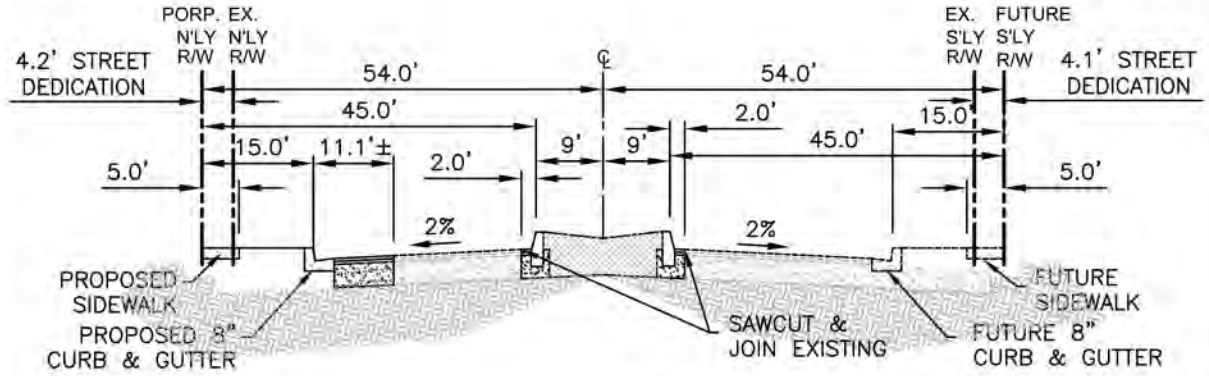
	PROPERTY BOUNDARY	TC	TOP OF CURB
	CENTERLINE	FL	FLOWLINE
	CENTERLINE	BW	BACK OF WALK
	OFFSITE R/W	HP	HIGH POINT
	EASEMENT LINE	FF	FINISH FLOOR
	STORM DRAIN	FS	FINISH SURFACE
	SEWER LINE	FG	FINISH GROUND
	WATER LINE	NG	NATURAL GROUND

Source(s): W&W Technologies, Inc. (09-27-2016)

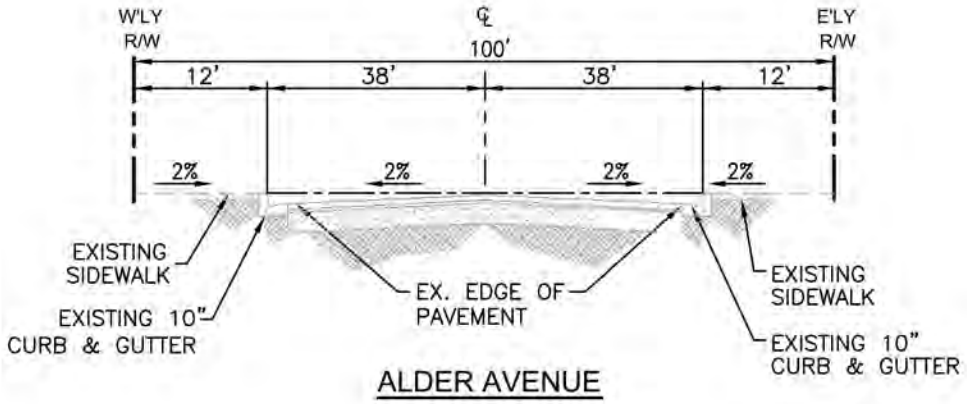
NOT TO SCALE

FIGURE 2-12

Tentative Tract Map No. 19680



RENAISSANCE PARKWAY



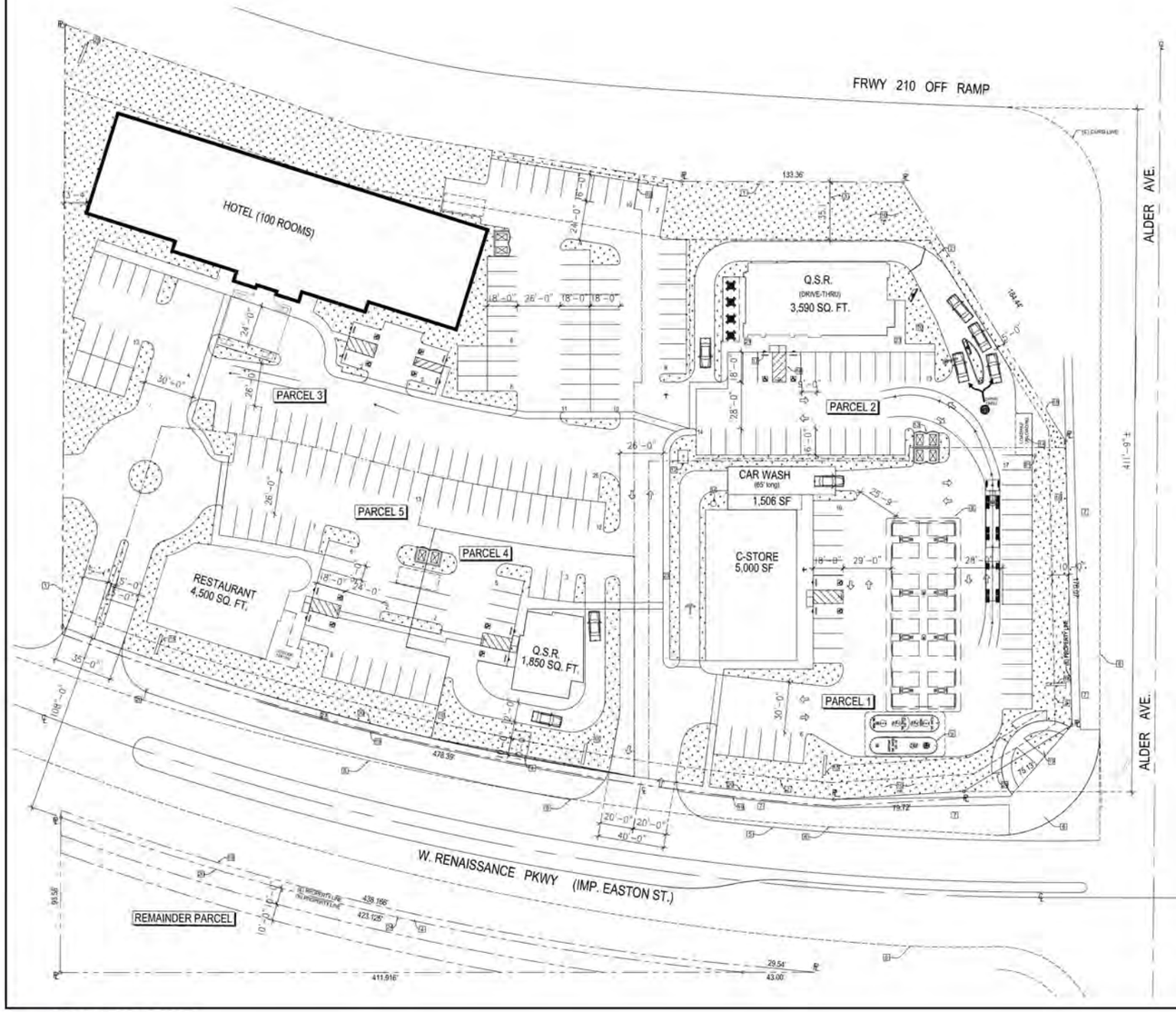
ALDER AVENUE

Source(s): W&W Technologies, Inc. (09-27-2016)

FIGURE 2-13

NOT TO SCALE

Roadway Cross-Sections



Project Data

APN#: 0240-191-034, 035 & 043
ZONING: FREEWAY COMMERCIAL

Parcel	Site Area	Building Area	Parking Required	Parking Proposed	Uses
PARCEL 1	50,332 SF	6,506 SF	20	33+16 UNDER CANOPY	GAS STATION, CARWASH & C-STORE, 1-STORY
PARCEL 2	36,564 SF	3,590 SF	47.87	38	QSR WITH DRIVE-THRU, 1-STORY
PARCEL 3	81,229 SF	63,000 SF	100	98	HOTEL (100) KEYS, 4-STORY
PARCEL 4	16,007 SF	1,850 SF	24.67	10	QSR WITH DRIVE-THRU, 1-STORY
PARCEL 5	27,937 SF	4,500 SF	36	36	FULL SERVICE RESTAURANT, 1-STORY
REMAINER PARCEL	16,293 SF	---	---	---	
SUB-TOTAL:	228,362 SF	79,446 SF	229	231	
STREET DEDICATION: 1,850+2,338=4,188 SF					
TOTAL: 232,550 SF (5.339 AC.)					

Reference Notes

1. PROPERTY LINES
2. SET BACK LINES
3. EDISON EASEMENT
4. ROAD DEDICATION
5. (N) CONCRETE CURB & GUTTER
6. (E) CONCRETE CURB & GUTTER
7. (E) CONC. SIDEWALK
8. (N) 39'X110' CANOPY
9. (N) UNDER GROUND STORAGE TANKS
10. (N) LANDSCAPE
11. (N) HEALY TANK
12. (N) TRANSFORMER PAD
13. (N) TRASH ENCLOSURE
14. (N) LOADING/UNLOADING
15. (N) MONU. SIGN
16. (N) HCP PARKING
17. (N) HCP RAMP
18. (N) LINE OF PAD
19. (E) PROPERTY LINE
20. (N) PROPERTY LINE
21. (N) VACUUM
22. (N) 4' WIDE PATH OF TRAVEL, 2% X-SLOPE
23. (N) CONC. SIDEWALK
24. (N) CITY MONUMENT SIGN
25. (N) FWY PYLON SIGN 75 FT HEIGHT
26. (N) TRAFFIC SIGNAL

Project Data

CODE: CBC 2013
TYPE OF CONSTRUCTION: VA
SPRINKLER: YES
ZONING: C ZONE
BUILDING OCCUPANCY: A2, B & M
SITE AREA: = 232,550 S.F. (5.339 AC.)
BUILDING AREA:
PARCEL 1
GROCERY STORE (5,000 S.F.)
CARWASH (1,506 S.F.)
PARCEL 2
Q.S.R. (3,590 S.F.)
PARCEL 3
HOTEL - 100 KEY (14,325X3+17,397=60,372 S.F.)
PARCEL 4
Q.S.R. (1,850 S.F.)
RESTAURANT (4,500 S.F.)
REMAINDER PARCEL
VACANT (18,142 S.F.)
LOT COVERAGE:
= 5,000+1,506+3,590+1,850+4,500+17,397=33,843 SF
33,843/228,362 (NET)=14.82%±

PARKING CALCULATION

PARKING REQUIRED:

1)	C- STORE 5,000 S.F.(1/250)	20 CARS
2)	FOOD 3,590 S.F. (1/75 S.F.)	47.87 CARS
3)	HOTEL 100 KEYS	100 CARS
4)	FOOD 1,850 S.F. (1/75 S.F.)	24.67 CARS
	RESTAURANT (SIT-DN) 4,500 S.F. (1/125 S.F.)	36 CARS
	TOTAL REQUIRED:	229 CARS

PARKING PROVIDED:

STANDARD (9'X18'):	213 CARS
ACCESSIBLE (9'X18'):	12 CARS
DRIVE THRU (CREDIT)	6 CARS
	231 CARS
LOADING/UNLOADING:	3 PROVIDED
LANDSCAPE PROVIDED: 69,344 SF±	67,244/228,362=29.45%

Source(s): Whyld (08-16-2016)

NOT TO SCALE

FIGURE 2-14

Precise Plan of Design No. 2411

2.4 SCOPE OF ENVIRONMENTAL ANALYSIS

2.4.1 Construction Characteristics

During typical construction activities, equipment is expected to operate eight (8) hours per day, five (5) days per week during the permitted hours stated in City of Rialto Municipal Code Chapter 9.50.070 as identified in Table 2-5, *Permitted Hours of Construction Work*.

Table 2-5 Permitted Hours of Construction Work

October 1 through April 30	
Monday - Friday	7:00 a.m. to 5:30 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No Permissible Hours
State Holidays	No Permissible Hours
May 1 through September 30	
Monday - Friday	6:00 a.m. to 7:00 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No Permissible Hours
State Holidays	No Permissible Hours

(Rialto, California - Municipal Code, Section 9.50.70)

As identified in Table 2-6, *Construction Activity Schedule,* The proposed Project is expected to commence in January 2018 and last through February 2019. Construction may occur associated with off-site utility and infrastructure improvements; however, at this time, a specific schedule of utility and infrastructure improvements is unknown (Urban Crossroads, Inc., 2016a, p. 25). The Project's construction is anticipated to use the equipment identified in Table 2-7, *Anticipated Construction Equipment to be Used.*

Table 2-6 Construction Activity Schedule

Phase Name	Start Date	End Date	Days
Site Preparation	1/1/2018	1/12/2018	10
Grading	1/13/2018	2/9/2018	20
Building Construction	2/10/2018	12/28/2018	230
Paving	12/29/2018	1/25/2019	20
Architectural Coasting	1/26/2019	2/22/2019	20

(Urban Crossroads, Inc., 2016a, Table 3-2)

Table 2-7 Anticipated Construction Equipment to be Used

Activity	Equipment	Number	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Tractors/Loaders/Backhoes	4	8
Grading	Graders	1	8
	Rubber Tired Dozers	1	8
	Tractors/Loaders/Backhoes	2	8
	Excavator	1	8
Building Construction	Tractors/Loaders/Backhoes	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Cranes	1	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coatings	Air Compressors	1	8

(Urban Crossroads, Inc., 2016a, Table 3-3)

2.4.2 Operational Characteristics

The proposed Project is designed for Freeway Commercial retail uses, which include a 100-room hotel, two quick serve restaurants with drive-thru, one sit down restaurant, and a gas station with a convenience store and carwash. At the time this EIR Addendum was prepared, the future occupants of the Project's buildings were unknown.

For purposes of analysis in this EIR Addendum, the hotel and service station are anticipated to include 24-hour operations. The restaurants are evaluated as if they have hours of operation from approximately 6:00 a.m. to midnight

3.0 ENVIRONMENTAL CHECKLIST

3.1 PROJECT DESCRIPTION

1. Project: Implementation of the Renaissance Specific Plan for Planning Area 11, Tentative Parcel Map No. 19860 and Precise Plan of Design No. 2241.

2. Applicant: Sater Bros, Inc.; 4300 Edison Avenue, Chino, CA 91710

3. Project Location: The Project site is located at the southwest corner of Alder Avenue and the SR-210 Freeway.

4. Project Description: The implementation of a 5.3-acre portion of Planning Area 11 of the Renaissance Specific Plan. The Project provides for the development of an approximately 5.3-acre property with one (1) gas station and convenience store (C-Store) with car wash, two (2) quick service restaurant (QSR) (i.e., fast food restaurants) with drive-thru lanes, (1) sit down restaurant and one (1) 100-room 4-story hotel. The Project proposes to leave the remainder parcel (16,293 s.f) (located south of W. Renaissance Parkway) vacant and undeveloped.

5. General Plan Designation: Specific Plan (SP)

6. Zoning Designation: Freeway Commercial (FC)

7. Project Setting and Surrounding Land Uses: The Project site is within Planning Area 11, which consists of approximately 10.1 acres in the west central portion of the City of Rialto in the western portion of the Renaissance Specific Plan. To the north, is SR-210 and north of SR-210 is the County of San Bernardino Mid-Valley Landfill. Directly to the east of the Project site is Alder Avenue and approximately 10.8 acres of vacant land, which are Planning Areas 18 and 19 of the Renaissance Specific Plan. To the south is W. Renaissance Parkway and an area for utilities. To the southwest are two large warehouse buildings and to the west, is W. Renaissance Parkway and approximately 22.1 acres of vacant land, which is Planning Area 10 of the Renaissance Specific Plan.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a potentially significant impact as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials	☐ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☐ Transportation	☐ Tribal Cultural Resources	☐ Greenhouse Gas (Climate Change)
☐ Utilities		

3.3 ENVIRONMENTAL DETERMINATION

On the basis of the initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☒ I find that the significant effects that would result from the Project have been addressed in an earlier certified Renaissance Specific Plan Final EIR (SCH No. 2006071021) and that none of the determinations set forth in the Public Resources Code Section 21166 and State CEQA Guidelines Section 15162 can be established and, thus, an Addendum to the *RSP Final EIR* shall be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared By:

Signature:_____ Date:_____
Name and Title: Gina Gibson, Planning Manager

3.4 EVALUATION OF ENVIRONMENTAL IMPACTS

The following Environmental Checklist is for projects with previously certified/ approved environmental documents. This checklist takes into consideration the preparation of an environmental document, such as an EIR, prepared at an earlier stage of a proposed project. This checklist evaluates the adequacy of the earlier document pursuant to Section 15164 of the California Environmental Quality Act (CEQA) Guidelines. This Environmental Assessment Review No. 15-47 to the previously prepared *Renaissance Specific Plan Final EIR* (SCH No. 2006071021) has been prepared in accordance with §15164 of the CEQA Guidelines.

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
2. AGRICULTURE AND FOREST RESOURCES. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
Timberland Production (as defined by Government Code section 51104(g)).				
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
3. AIR QUALITY. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
4. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource or an archeological resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
6. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
8. HYDROLOGY AND WATER QUALITY. Would the project:				

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or off-site?	☐	☐	☐	☒
e. Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☐	☐	☒
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or FIRM or other flood hazard delineation map?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
i. Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
9. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
10. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
11. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
12. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection, Police Protection, Schools, Parks, Other Public Facilities?	☐	☐	☐	☒
14. RECREATION. Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
b. Require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒
15. TRANSPORTATION. Would the project:				
a. Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☐	☒
16. Tribal Cultural Resources. Would the Project:				
a. Alter or destroy an historic site?	☐	☐	☐	☒
b. Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
c. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☐	☐	☐	☒
17. UTILITIES. Would the project:				
d. Exceed wastewater treatment requirements of the applicable RWQCB?	☐	☐	☐	☒
e. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
f. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
g. Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
h. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
i. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
j. Not comply with federal, state, and local statutes and regulations related to solid waste.	☐	☐	☐	☒
18. Greenhouse Gas Emissions (Climate Change) Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒

	New Significant Impact	*More Severe Impacts*	*New Ability to Substantially Reduce Significant Impact*	*No Substantial Change from Previous Analysis*
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒
c. Be inconsistent with AB 32's GHG reduction goal by failing to reduce GHG emissions by at least 28 percent below an ARB 2020 No Action Taken ("NAT") scenario?	☐	☐	☐	☒

4.0 DISCUSSION OF ENVIRONMENTAL EVALUATION

4.1 AESTHETICS

Would the Project:

a) Have a substantial adverse effect on a scenic vista?

RSP Final EIR Finding: The Final EIR prepared for the Renaissance Specific Plan (hereafter, "*RSP Final EIR*"), found that implementation of the RSP would result in no substantial adverse effect on a scenic vista; therefore, impacts were considered less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1).

As stated in the *RSP Final EIR,* the Rialto General Plan did not identify or designate any potential or existing scenic routes in the RSP project area. For the purpose of analysis in the *RSP Final EIR*, views were generally considered to be scenic if they included an undisturbed natural area, a unique or unusual feature which comprises an important portion of a viewshed or offers a distant vista which provides relief from less attractive views of nearby features (such as views of mountain backdrops from urban areas). No scenic areas were identified. The *RSP Final EIR* concluded that although buildout of the RSP would convert predominantly urban vacant land to residential, commercial, and light industrial land uses, substantially changing the aesthetic nature of the property, much of the RSP area was in a blighted condition and not considered scenic in nature. Also, the *RSP Final EIR* found that buildout of the RSP would be consistent with surrounding development and have a less than significant impact on views of the San Gabriel and San Bernardino Mountains in the distance. (City of Rialto, 2010a, p. 4.1-1 and 4.1-2 and 4.1-11).

No Substantial Change from Previous Analysis: The Project site is located in Planning Area 11 of the RSP, which the *RSP Final EIR* analyzed for development with Freeway Commercial (FC) land uses, including retail/office uses serving the community and traveling public. The proposed Project would not alter the conclusions of the *RSP Final EIR* related to impacts on scenic vistas. The *RSP Final EIR* concluded that although new buildings in the RSP would block views from portions of the RSP to the mountains, the RSP would be consistent with the surrounding development and the overall views of the San Gabriel and San Bernardino Mountains. The proposed Project would have no greater potential to block mountain views than disclosed in the *RSP Final EIR.* Therefore, development of the proposed Project would result in a less than significant impact to scenic vistas, which is the same conclusion reached by the *RSP Final EIR.* (City of Rialto, 2010a, p. 4.1-1 and 4.1-2 and 4.1-11).

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

RSP Final EIR Finding: The *RSP Final EIR* found that no designated scenic highways are located in the vicinity of the RSP project area (City of Rialto, 2010a, p. 4.1-2). Thus, the *RSP Final EIR* found that implementation of the RSP would not substantially damage scenic resources within a State scenic

highway. Impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1)

No Substantial Change from Previous Analysis: Consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is vacant and undeveloped and does not contain scenic resources, such as trees, rock outcroppings, or historic buildings. There are no designated scenic highways in the RSP project area, which includes the Project site, therefore, there are no designated scenic highways located in the vicinity of the Project site. Consistent with the finding of the *RSP Final EIR*, implementation of the proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Impacts would be less than significant and no mitigation is required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

RSP Final EIR Finding: The *RSP Final EIR* found that implementation of the RSP would not substantially degrade the existing visual character or quality of the site and its surroundings; therefore, impacts were considered less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). Buildout of the RSP would result in short-term construction aesthetic impacts because heavy equipment and machinery, grading of the land, and the construction of new homes and other buildings would be visible and construction dust may temporarily diminish the views of the area during grading and construction activities. However, the short-term visual impacts during construction activities were concluded by the *RSP Final EIR* to be temporary in nature and less than significant. Development of the RSP would convert predominantly urban land to residential, commercial, and light industrial uses, substantially changing the aesthetic nature of the RSP. However, the *RSP Final EIR* found that much of the RSP was in a blighted condition and not scenic in nature. Therefore, the *RSP Final EIR* found that development of the RSP would actually improve the visual landscape. (City of Rialto, 2010a, p. 4.1-11)

No Substantial Change from Previous Analysis: As analyzed in the *RSP Final EIR*, development of the RSP project area, which includes the Project site, would result in short-term construction impacts related to heavy grading and construction equipment and construction dust that may temporarily diminish views of the area. As identified in Table 2-6, *Construction Activity Schedule*, the proposed Project would be constructed in one phase over a span of approximately 12 months. Various pieces of machinery would be used during the Project's construction, as identified in Table 2-7, *Anticipated Construction Equipment to be Used*; however, consistent with the conclusion drawn by the *RSP Final EIR,* the short-term visual impacts during construction activities would be temporary in nature and limited to the actual periods of construction of each phase and therefore would have a less-than-significant impact on the visual character and quality of the site.

Consistent with the conditions that existed at the time the *RSP Final EIR* was certified, under existing conditions, the Project site is vacant and undeveloped. In the long-term, views of the Project site would change from that of a vacant undeveloped site to that of a developed property containing one hotel, one full-service restaurant, two quick-serve (drive-thru) restaurants, a gas station with a car wash, and associated infrastructure as described in Section 2.0, *Project Description*. The proposed Project would be

visually compatible with the existing gas station and freeway commercial uses that are located approximately 0.2 miles northeast of the Project site. The proposed Project would be required to incorporate the *RSP* development standards and design guidelines that define the overall architectural and aesthetic character of the RSP. The guidelines are subject to oversight by appropriate City authorities prior to Project development. (City of Rialto, 2010a, p. 4.1-12) Thus, consistent with the *RSP Final EIR*, the proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant and no mitigation would be required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

RSP Final EIR Finding: The *RSP Final EIR* found that implementation of the RSP would not create new sources of light or glare that may adversely affect day or nighttime views; therefore, impacts were considered less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). The *RSP Final EIR* stated that although buildout of the RSP would introduce streetlights, and lights used for parking, security, parks including sports park facilities, and vehicles, most of these lights are not considered intense lighting that would cause impacts to nearby properties. Windows associated with the residences and other structures in the RSP project area and vehicles within the RSP project area would result in glare. However, these sources are not considered substantial sources of glare. Because the RSP is nearly surrounded by development that has similar light and glare sources, the *RSP Final EIR* found that the RSP would be consistent with surrounding light sources. Therefore, the *RSP Final EIR* found that the RSP would not create a significant impact related to light and glare. Thus, impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010a, p. 4.1-11)

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is vacant and undeveloped and does not contain sources of artificial light. Existing off-site sources of light and glare include lighting associated with SR-210 and street lighting associated with Alder Avenue, other nearby roads, and exterior lighting associated with the existing warehouse buildings southwest of the Project site.

The proposed Project would be consistent with the type and intensity of commercial development that was contemplated in the RSP for the Project site. With implementation of the proposed Project, artificial lighting would be introduced on the Project site as part of the development of one hotel, one full-service restaurant, two quick-serve (drive-thru) restaurants, a gas station with a car wash, and associated parking. The light intensity from the Project would be no greater than what was assumed by the *RSP Final EIR*. With respect to daytime glare impacts that could result from reflective building materials, the proposed Project is required to be consistent with the design guidelines of the RSP which specify that lighting elements be shielded or downward facing to minimize glare, spillover, and light pollution (City of Rialto, 2010c, p. 4-7). While window glazing has the potential to result in minor amounts of glare, such effects would be minimal because the Project would not include any uses that would result in the installation of large expanses of reflective glass or metal components. In addition, consistent with the conclusion drawn by the *RSP Final EIR*, the Project site is surrounded on the north, south, and east sides by existing and

planned development that would have similar sources of light and glare. Development of the Project as proposed would result in no new light or glare impacts than disclosed in the *RSF Final EIR*.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of aesthetics.

4.2 AGRICULTURE AND FOREST RESOURCES

Would the Project:

a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland) as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

RSP Final EIR Finding: The *RSP Final EIR* found the RSP project area contains 477.5 acres of Urban and Built-Up Land and 967.8 acres of Other Land as designated by the Farmland Mapping and Monitoring Program (FMMP). The *RSP Final EIR* found that there is no FMMP-designated Prime Farmland or Farmland of Statewide Importance within the RSP project area and approximately 85% of the RSP project area is composed of soils that are marginal for agricultural production. Additionally, no portion of the RSP project area is designated as Protected Resource Land, no portion of the RSP project area is under Williamson Act contract, no lands are designated or zoned for agriculture use, and no current agricultural uses exist in the RSP project area. (City of Rialto, 2010a, p. 4.2-7). As such the *RSP Final EIR* concluded that buildout of the RSP: a) would not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance to nonagricultural use and thus would not result in a substantial loss of existing or potential agricultural productivity; b) would not conflict with existing zoning for agricultural use or Williamson Act contract, and c) would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use. Thus, the *RSP Final EIR* found that impacts associated with developing the RSP area would be less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1)

The *RSP Final EIR* was prepared prior to the revision of the CEQA Appendix G, Environmental Checklist Form that addressed forest resources as reflected in the current CEQA Thresholds above.

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is comprised of vacant and undeveloped land. According to maps pursuant to the Farmland Mapping and Monitoring Program (FMMP), the Project site contains lands classified as "Urban and Built Up Land" (State of California Department of Conservation, 2014). Accordingly, consistent with the *RSP Final EIR,* the Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Also, consistent with the *RSP Final EIR,* the Project site is not designated as Protected Resource Land, is not under a Williamson Act contract, is not designated or zoned for agriculture use, and no current agricultural uses exist on the Project site.

Although the *RSP Final EIR* did not address the subject of forest resources in any of the thresholds, the *RSP Final EIR* contained enough information about the RSP's existing land use, vegetation types and zoning that with the exercise of reasonable diligence, information about the absence of forest resources was readily available to the public.

Therefore, consistent with the *RSP Final EIR*, implementation of the proposed Project would result in less than significant impacts associated with the environmental factor of agriculture and forest resources.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of agricultural and forest resources.

4.3 AIR QUALITY

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

RSP Final EIR Finding: The *RSP Final EIR* determined that the RSP project would not comply with the South Coast Air Quality Management Plan (SCAQMD) 2007 Air Quality Management Plan (AQMP); therefore impacts were determined to be significant and unavoidable even after the implementation of MM AQ-1 through MM AQ-15 (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.3-47) The analysis found that without mitigation, the RSP project's construction and operational emissions would exceed the following SCAQMD regional emission significance thresholds in one or more of the development years during the period 2009 to 2020 (City of Rialto, 2010a, Page 4.3-29).

- Construction: VOC, NO_X, CO, PM_{10}, and $PM_{2.5.}$
- Operations: VOC, NO_X, CO, PM10, and $PM_{2.5.}$
- Combined Construction and Operations: VOC, NO_X, CO, PM_{10}, and $PM_{2.5.}$

Therefore, the RSP project was determined not to meet the third indicator of consistency with the AQMP (Compliance with the SCAQMD Regional Thresholds). Accordingly, with respect to exceedance of regional and construction emissions and compliance with the 2003 AQMP and 2007 AQMP, the *RSP Final EIR* considered impacts to be significant. Although mitigation measures would reduce emissions, emissions would still be over the SCAQMD regional significance thresholds and the RSP project would not comply with the AQMP. Therefore, impacts were considered significant and unavoidable. (City of Rialto, 2010a, p. 4.3-29 tbhrough 4.3-30)

No Substantial Change from Previous Analysis: The Project site is located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the SCAQMD. The *Final 2012 AQMP* was adopted by the AQMD Governing Board on December 7, 2012 and is the current air quality plan with applicability to the Project site. The AQMP is updated every five years. Compared to the 2007 AQMP, the *2012 AQMP* incorporates updated scientific and technological information and planning assumptions, including the *2012 Regional Transportation Plan/Sustainable Communities Strategy* and updated emission inventory methodologies for various source categories. (Urban Crossroads, Inc., 2016a, pp. 36-37) It is noted that although the RSP project's consistency with the AQMP was determined using the 2003 AQMP and 2007 AQMP in the *RSP Final EIR*, the criteria used to determine consistency with the 2003, AQMP, the 2007 AQMP, and the 2012 AQMP are the same. Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG using the most recent motor vehicle and demographics information. (Urban Crossroads, Inc., 2016a, pp. 36-37)

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP. (Urban Crossroads, Inc., 2016a, pp. 36-37)

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized significance thresholds (LSTs) were exceeded (Urban Crossroads, Inc., 2016a, p. 38).

Construction Impacts

The proposed Project analysis demonstrates that Project's construction-source emissions would not exceed the applicable SCAQMD LSTs for construction activity (refer to Threshold 4.3(b) below). Therefore, the Project would not have the potential to conflict with the AQMP according to this criterion. (Urban Crossroads, Inc., 2016a, p. 38)

Operational Impacts

The proposed Project analysis demonstrates that Project operational-source emissions would not exceed applicable LSTs (refer to Threshold 4.3 (b) below). Therefore, the proposed Project would not have the potential to conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the proposed Project is determined to be consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase. (Urban Crossroads, Inc., 2016a, p. 38)

Overview

The *2012 AQMP* demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the SCAB are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the City of Rialto General Plan is considered to be consistent with the AQMP. Therefore, consistent with the *RSP Final EIR,* the proposed Project would assess consistency with the AQMP utilizing the SCAQMD regional thresholds. (Urban Crossroads, Inc., 2016a, p. 38)

Construction Impacts

The proposed Project would not exceed the applicable SCAQMD regional thresholds for any criteria pollutant (refer to Threshold 4.3 (b) below). However, the proposed Project is a part of the RSP project and the *RSP Final EIR* disclosed a potential to conflict with or obstruct implementation of the 2007 AQMP because emissions from buildout of the RSP were determined to exceed the SCAQMD regional significance thresholds and therefore, the RSP project was determined not to comply with the AQMP. Consistent with

the findings of the *RSP Final EIR*, construction of the proposed Project would have a cumulatively considerable potential to conflict with the AQMP. (Urban Crossroads, Inc., 2016a, p. 38)

Operational Impacts

Operation of the proposed Project would not exceed the applicable SCAQMD regional thresholds for emissions any criteria pollutants (refer to Threshold 4.3 (b) below). However, the Project is part of the *RSP*, which (as a whole) was identified in the *RSP Final EIR* as having a potential to conflict with or obstruct the implementation of the AQMP. Therefore, consistent with the conclusion drawn by the *RSP Final EIR,* the proposed Project would produce air emissions that would contribute to the potential inability of the SCAQMD to meet the regional air quality goals of the AQMP. (Urban Crossroads, Inc., 2016a, p. 38)

AQMP Consistency Conclusion

The proposed Project would not result in or cause NAAQS or CAAQS violations. Notwithstanding, consistent with the *RSP Final EIR*, the proposed Project has the potential to conflict with or obstruct implementation of the AQMP because RSP emissions were determined to exceed the SCAQMD regional significance thresholds and the RSP project was determined to not comply with the AQMP. Therefore, the proposed Project is determined to have a significant impact with respect to AQMP consistency. (Urban Crossroads, Inc., 2016a, p. 38)

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

RSP Final EIR Finding (b): The *RSP Final EIR* included a localized significance analysis and a CO hot spot analysis, and impacts were determined to be less than significant and no mitigation was required. (City of Rialto, 2010a, p. 4.3-47) The RSP project's localized significance analysis demonstrated that even without mitigation, the RSP project would not exceed the localized thresholds for CO, NO_2, $PM_{10,}$ or $PM_{2.5}$. In addition, the CO hotspot analysis demonstrated that RSP project emissions of CO during operation, along with emissions from other foreseeable projects in the area, would not result in an exceedance of the most stringent ambient air quality standards for CO. (City of Rialto, 2010a, p. 4.3-30)

RSP Final EIR Finding (c): The regional significance analysis of construction and operational emissions associated with full buildout of the RSP, demonstrated that without mitigation, emissions of NO_X, VOC, PM_{10}, and $PM_{2.5}$ would be over SCAQMD regional significance thresholds. Therefore, without mitigation, the *RSP Final EIR* concluded that the RSP project would contribute to a cumulatively significant regional impact to the budget of pollutant ozone, PM_{10} and $PM_{2.5}$. (City of Rialto, 2010a, p. 4.3-32) After implementation of MM AQ-1 through AQ-15, impacts were determined to be significant and unavoidable (City of Rialto, 2010c).

No Substantial Change from Previous Analysis:

Analysis:

A. Regional Air Quality Improvement

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2013, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations. No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. Refer to the proposed AQIA (*Technical Appendix A)* for a discussion of SCAB trends. (Urban Crossroads, Inc., 2016a, p. 14)

B. Existing Project Site Air Quality Conditions

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O3), Carbon Monoxide (CO), Nitrogen Dioxide (NO2), Inhalable Particulates (PM10), and Ultra-Fine Particulates (PM2.5) is the South Coast Air Quality Management District Central San Bernardino Valley 1 monitoring station, located approximately 4.5 miles southwest of the Project site in Fontana. Existing air quality conditions at the Project site would generally reflect ambient monitored conditions as identified in Table 2-3 of the Project's AQIA (*Technical Appendix A*). (Urban Crossroads, Inc., 2016a, p. 14)

C. Standards of Significance

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized in Table 4-1, *Maximum Daily Emissions Thresholds.* The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact. (Urban Crossroads, Inc., 2016a, p. 23) These are the same significance thresholds used by the *RSP Final EIR*.

Table 4-1 Maximum Daily Emissions Thresholds

Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
CO (1-Hour)	20.0 ppm	20.0 ppm
CO (8-Hour)	9.0 ppm	9.0 ppm
NO2	0.18 ppm	0.18 ppm
PM10	10.4 µg/m3	2.5 µg/m3
PM2.5	10.4 µg/m3	2.5 µg/m3

[A] Based on SCAQMD Air Quality Significance Thresholds, March 2015.
(Urban Crossroads, Inc., 2016a, Table 3-1)

D. Construction Emissions

Construction activities associated with the proposed Project would result in emissions of CO, VOCs, NO_X, sulfur oxides (SO_X), particulate matter 10 microns in diameter or less (PM_{10}) and particulate matter 2.5 microns in diameter or less ($PM_{2.5}$) Construction is expected to commence in January 2018 and last through February 2019 (Refer to Table 2-6, *Construction Activity Schedule*). Urban Crossroads utilized the CalEEMod model to calculate fugitive dust emissions resulting from the Project's construction phase of activity. (Urban Crossroads, Inc., 2016a, pp. 24-25)

Construction Emissions Summary

The Project's calculated maximum daily construction emissions are summarized in Table 4-2, *Maximum Daily Peak Construction Emissions Summary.* Project construction-source emissions would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. Thus, a less than significant impact would occur for Project-related construction-source emissions and no mitigation would be required. Regardless, *RSP Final EIR* mitigation measures would remain applicable to the proposed Project.

Table 4-2 Maximum Daily Peak Construction Emissions Summary

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2018	4.35	45.69	37.24	0.05	9.61	6.10
2019	38.76	15.00	15.13	0.02	1.00	0.79
Maximum Daily Emissions	**38.76**	**45.69**	**37.24**	**0.05**	**9.61**	**6.10**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-4)

E. Operational Emissions

Operational activities associated with the proposed Project would result in emissions of ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ (Urban Crossroads, Inc., 2016a, p. 27)

Area Source Emissions

Area source emissions include emissions from architectural coatings, consumer products (e.g., detergents, cleaning compounds, polishes, personal care products, and lawn and garden products), and landscape maintenance equipment. (Urban Crossroads, Inc., 2016a, p. 27)

Energy Source Emissions

Energy source emissions include combustion emissions from the generation of electricity and natural gas. (Urban Crossroads, Inc., 2016a, p. 28)

Mobile Source Emissions

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the Traffic Impact Analysis prepared by Urban Crossroads were utilized in this analysis. Weekend trip generation rates from The Institute of Transportation Engineers Trip Generation Handbook, 9th Edition were also used in the analysis. (Urban Crossroads, Inc., 2016a, p. 28)

Operational Emissions Summary

The estimated maximum peak operational emissions are summarized on Table 4-3, *Summary of Operational Emissions – Summer Scenario*, and Table 4-4, *Summary of Operational Emissions – Winter Scenario*. Under the assumed scenarios, emissions resulting from the Project operations would not exceed the applicable SCAQMD regional thresholds of significance for any criteria pollutant. Therefore, a less than significant impact would occur and no mitigation measures are required. (Urban Crossroads, Inc., 2016a, pp. 28-29)

Table 4-3 Summary of Operational Emissions – Summer Scenario

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	5.92	3.50E-04	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	0.02	0.22	0.22
Mobile	22.29	38.43	164.15	0.33	21.32	6.02
Total Maximum Daily Emissions	**28.52**	**41.28**	**166.58**	**0.35**	**21.54**	**6.24**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-5 (1 of 2)

Table 4-4 Summary of Operational Emissions – Winter Scenario

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	5.29	0.00	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	2.00E-02	0.22	0.22
Mobile	21.68	39.72	168.91	0.31	21.33	6.03
Total Maximum Daily Emissions	**27.28**	**42.57**	**171.34**	**0.33**	**21.55**	**6.25**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-5 (2 of 2)

Summary:

A. Construction Source Emissions

Regional Impacts

Project construction-source emissions would not exceed the numerical regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for any criteria pollutants. Thus, a less than significant impact would occur for Project- elated construction-source and no mitigation measures are required. As such, the overall construction impacts of the proposed Project would be less than what was disclosed in the *RSP Final EIR* and no new impacts would occur. (Urban Crossroads, Inc., 2016a, p. 1)

Localized Impacts

Project construction-source emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant. Therefore, a less than significant impact would occur. Project construction-source emissions would be consistent with the applicable Air Quality Management Plans (AQMP). (Urban Crossroads, Inc., 2016a, p. 2)

B. Operational-Source Emissions

Regional Impacts

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD. Thus, a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required. As such, the overall operational impacts of the proposed Project would be less than what was disclosed in the *RSP Final EIR* and no new impacts would occur. (Urban Crossroads, Inc., 2016a, p. 2)

Localized Impacts

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of the Project's AQIA. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations. Project operational-source emissions would be consistent with the applicable AQMP. (Urban Crossroads, Inc., 2016a, p. 2)

C. Comparison to Analysis in the RSP Final EIR

This section summarizes the Project's emissions impacts as described in its AQIA (*Technical Appendix A*) as compared to the emissions totals and impacts that were identified in the *RSP Final EIR* (Urban Crossroads, Inc., 2016a, pp. 32-33).

Construction Emissions

Table 4-5, *Project Construction Emissions vs. RSP Final EIR Emissions*, shows a comparison of the proposed Project's regional construction-source emissions to that previously assumed and analyzed in the *RSP Final EIR.* As shown on Table 4-5, the proposed Project is calculated to generate significantly fewer emissions per day for emissions of VOCs NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$, as compared to what was previously analyzed in the *RSP Final EIR.* Thus, the construction impacts of the proposed Project would be less than what was disclosed in the *RSP Final EIR* and no new significant impacts would occur. (Urban Crossroads, Inc., 2016a, p. 32)

Operational Emissions

Table 4-6, *Project Build-Out Operational Emissions vs. RSP Final EIR*, shows a comparison of the proposed Project's regional operational-source emissions to that previously assumed and analyzed in the *RSP Final EIR*. As shown on Table 4-6, the proposed Project is anticipated to generate significantly fewer emissions per day for emissions of VOCs, NOx, CO, SO_X, PM_{10}, and $PM_{2.5}$ as compared to what was previously analyzed in the *RSP Final EIR*. Thus, the operational impacts of the proposed Project would be less than what was disclosed in the RSP Final EIR and no new significant impacts would occur. (Urban Crossroads, Inc., 2016a, p. 34)

Table 4-5 Project Construction Emissions vs. RSP Final EIR Emissions

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2010 Approved Renaissance Specific Plan						
Maximum Daily Emissions	**603**	**657**	**1,006**	**2**	**470**	**118**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**
Proposed Project						
2018	4.35	45.69	37.24	0.05	9.61	6.10
2019	38.76	15.00	15.13	0.02	1.00	0.79
Maximum Daily Emissions	**38.76**	**45.69**	**37.24**	**0.05**	**9.61**	**6.10**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Net Change	**-564.24**	**-611.31**	**-968.76**	**-1.95**	**-460.39**	**-111.90**
New Significant Impacts?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-8)

Table 4-6 Project Build-Out Operational Emissions vs. RSP Final EIR

Operational Activities- Peak Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2010 Approved Renaissance Specific Plan						
Peak Operational Emissions	1,012	4,881	6,137	23	2,320	522
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**
Proposed Project						
Area Source	5.92	0.00	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	2.00E-02	0.22	0.22
Mobile (Trucks)	22.29	39.72	168.91	0.31	21.33	6.03
Total Maximum Daily Emissions	**28.52**	**42.57**	**171.34**	**0.33**	**21.55**	**6.25**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**
Net Change	**-983.48**	**-4,838.43**	**-5,965.66**	**-22.67**	**-2,298.45**	**-515.75**
New Significant Impacts?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-9)

d) Expose sensitive receptors to substantial pollutant concentrations?

RSP Final EIR Finding: The *RSP Final EIR* determined that impacts associated with air emissions affecting sensitive receptors would be less than significant after implementation of MM AQ-1 through MM AQ-15 (City of Rialto, 2010b, Table 1-1).

No Substantial Change from Previous Analysis:

A. Localized Significance – Construction Activity

Sensitive Receptors

Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. To assess the stationary source operational and construction air impacts, one sensitive receptor location, was identified.

The nearest sensitive receptor is a residential community located approximately 1,640 feet (500 meters) west of the Project site. Notwithstanding, the LST Methodology explicitly states that "it is possible for sensitive receptors to be within a 25 meters or less vicinity to the Project site within those exposure durations, a 25-meter receptor distance was utilized to determine the LSTs for emissions of CO and NO_2." Therefore, a 25-meter distance is utilized as the nearest potentially affected sensitive receptor distance. Therefore, based on SCAQMD's Final LST Methodology, a 500-meter receptor distance is utilized to determine the LSTs for emissions of PM_{10} and $PM_{2.5}$ and a 25-meter receptor distance is utilized to determine the LSTs for emissions of CO and NO_2. (Urban Crossroads, Inc., 2016a, p. 42)

Localized Thresholds for Construction Activity

Table 4-7, *Localized Significance Summary – Site Preparation Activity* summarizes the localized impacts at the nearest receptor location in the vicinity of the Project site for site preparation. Table 4-8, *Localized Significance Summary – Grading Activity* summarizes the localized impacts at the nearest receptor location in the vicinity of the Project site for grading activity. Emissions during grading activity would not exceed the SCAQMD's localized significance thresholds for any criteria pollutants and no mitigation is required. (Urban Crossroads, Inc., 2016a, p. 32)

Table 4-7 Localized Significance Summary – Site Preparation Activity

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**45.61**	**36.61**	**9.41**	**6.05**
SCAQMD Localized Threshold	144	820	201	101
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-7)

Table 4-8 Localized Significance Summary – Grading Activity

On-Site Grading Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**31.07**	**24.00**	**4.28**	**2.90**
SCAQMD Localized Threshold	118	667	196	98
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, Inc., 2016a, Table 3-7)

B. Localized Significance – Long-Term Operational Activity

The Project involves the construction and operation of the following: a gas station with convenience store and car wash with 16 vehicle fueling positions, a 4,500 s.f. high turnover sit-down restaurant, a 100 room hotel, and 5,440 s.f. of fast food with drive-thru uses. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed. Moreover, the Project would occur within a commercial area and would not be located within 300' of any sensitive receptors (the nearest sensitive receptor would be located approximately 2,500 feet west of the Project site). (Urban Crossroads, Inc., 2016a, p. 45).

C. CO "HotSpot" Impact Analysis

Project-operational-source emissions would not result in or cause a significant localized impact as discussed above in the LSTs section. The proposed Project would not result in a significant CO "hotspot" as a result of Project-related traffic during ongoing operations, nor would the proposed Project result in a significant adverse health impact. Thus, consistent with the *RSP Final EIR f*inding, impacts to sensitive receptors during long-term operational activity would be less than significant. (Urban Crossroads, Inc., 2016a, p. 35)

e) Create objectionable odors affecting a substantial number of people?

RSP Final EIR Finding: The *RSP Final EIR* determined odor impacts during construction and operation of the RSP project to be less than significant and no mitigation was required. Land uses typically associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The RSP project does not contain land uses typically associated with emitting objectionable odors. A review of aerial photography did not find any odorous emission sources in the RSP project area that could affect the sensitive receptors in the RSP project area. (City of Rialto, 2010a, p. 4.3-38)

No Substantial Change from Previous Analysis:

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction

activities. There are no anticipated Project construction-source odor emissions. Therefore, potential construction-source odor impacts are considered less than significant.

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous commercial refuse and the potential for odors associated with gasoline refueling that are typical with all gas stations. Consistent with City requirements, all Project generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances.

Mitigation: The following applicable mitigation measures (MM AQ-1 through AQ-13, AQ-14, and AQ-15) are from the *RSP Final EIR* and are required for the Project.

AQ-1. Prior to construction of the project, the project proponent shall prepare a Large Operation Notification that will describe the application of standard best management practices to control dust during construction. Best management practices will include application of water on disturbed soils a minimum of three times per day, covering haul vehicles, replanting disturbed areas as soon as practical, and restricting vehicle speeds on unpaved roads to 15 mph, and other dust control measures, as deemed appropriate to the site or as included in the South Coast Air Quality Management District (SCAQMD) Rule 403. The Large Operation Notification shall be submitted to the City and SCAQMD for approval prior to construction.

AQ-2. During project construction, construction equipment shall be properly maintained at an offsite location in accordance with manufacturer's specifications; maintenance shall include proper tuning and timing of engines. The equipment maintenance records and equipment design specification data sheets shall be available during construction and subject to inspection.

AQ-3. During project construction, the developer shall require all contractors to turn off all construction equipment when not in use or limit idling to less than 5 minutes.

AQ-4. Prior to construction of the project, the project proponent shall prepare a Traffic Control Plan and submit it to the City of Rialto. The Plan shall describe in detail safe detours around the project construction site and congested streets. The Plan shall provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. The Plan is primarily intended as a safety measure but also can minimize traffic congestion and delays that increase idling and acceleration emissions. The Plan shall include the scheduling of construction truck trips during non- peak hours to reduce peak hour emissions. The Plan shall include the consolidation of truck deliveries, where feasible. The Plan shall also provide for dedicated turn lanes for movement of construction vehicles onsite and offsite. The Plan shall also provide for proper configuration of construction parking to minimize traffic interference. The Plan shall be prepared in accordance

with U.S. Department of Transportation Federal Highways Administration Rule on Work Zone Safety 23CFR 630 Subpart J, Developing and Implementing Traffic Management Plans for Work Zones.

AQ-5. Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable; and use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. All paints shall be low VOC content paints. For a list of low volatile organic compound (VOC) paints, see www.aqmd.gov/prdas/brochures/paintguide.html.

AQ-6. Prior to issuance of a grading permit, a Construction Employee Trip Reduction Plan shall be created. Included in the Plan shall include a shuttle service to and from retail establishments during lunch hour and/or an onsite lunch service. The Plan shall also include carpooling and/or transit incentives for the construction employees.

AQ-7. During project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.

AQ-8. Grading activity shall not occur on days with an Air Quality Index forecast for San Bernardino County greater than 100 for particulates or ozone. The categories where grading shall not occur are: unhealthy for sensitive groups, unhealthy, very unhealthy, or hazardous. Air Quality Index forecasts can be obtained at the website: www.airnow.gov/index.cfm?action=airnow.showlocal&CityID=211.

AQ-9. All diesel-powered off-road construction equipment in excess of 50 brake horsepower shall be required to have emission control equipment with a minimum of Tier II diesel particulate filter emission controls resulting in a minimum of 50 percent particulate matter control, if such a filter is available for that piece of equipment. Off-road diesel emission control equipment meeting this requirement can be found at: www.aqmd.gov/ceqa/handbook/mitigation/offroad/AQ_offroad.html.

AQ-10. The following shall be included in the Specific Plan:

- Synchronize traffic lights on streets impacted by development;
- Light colored roofing materials shall be used on all exposed roofs;
- Preferential parking for carpool/vanpool vehicles at the non-residential uses;
- Secure weather-protected bicycle parking for employees at the non-residential uses;
- Connect bicycle lanes/paths to project-wide network;
- Provide showers and lockers for employees bicycling or walking to work at the non-residential uses where feasible;
- Short-term bicycle parking for retail customers and other non-commuting trips; and

- Construct transit facilities such as bus turnouts, benches, and shelters that encourage mass transit usage and provide safe pedestrian access from proposed project facilities to transit stops.

AQ-13. The following uses shall not be located within the distance specified from an existing or future sensitive receptor (residence, school, hospital, nursing home daycare center, park and playground): within 500 feet of the 210 Freeway; within 500 feet of the equipment within a dry cleaning facility utilizing Perchloroethylene, and within 300 feet of a fueling station facility (i.e. fuel pumps). These facilities may be located closer than the proscribed distances if a project-specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

AQ-14. The following uses shall not be located within 1000 feet of a nearby sensitive receptor (occupied portions of existing or future residences, schools, hospitals, nursing homes, daycare centers, parks and playgrounds): a warehouse, distribution center, or logistics center unless a project- specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

4.4 BIOLOGICAL RESOURCES

Would the Project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG (now CDFW) or USFWS?

RSP Final EIR Finding: The *RSP Final EIR* found that impacts candidate, sensitive, and special status species would be less than significant after the implementation of recommended mitigation measures (MM) MM B-1 through MM B-4. (City of Rialto, 2010b, Table 1-1) The *RSP Final EIR* found that buildout of the RSP would result in potentially significant impacts to the following special status wildlife species: Coastal California Gnatcatcher (CAGN), San Bernardino Kangaroo Rat (SBKR), Burrowing Owl (BUOW), and Nesting Birds protected under the Migratory Bird Treaty Act (MBTA) and the California Department of Fish and Wildlife (CDFW). Also, because the RSP project area contains areas that were assumed to contain bird nests, the *RSP Final EIR* found that there was a potential that active bird nests could be impacted during construction of the RSP (City of Rialto, 2010a, Table 1-1 and pp. 4.4-10 thorugh 4.4-12)

No Substantial Change from Previous Analysis: Development of the Project as anticipated by the RSP would result in the same level of biological impact as analyzed in the *RSP Final EIR*, which assumed full disturbance to the Project site. Under existing conditions, the Project site consists of undeveloped, vacant land that has been subject to on-going weed abatement activities, with no native or otherwise undisturbed habitat. As such, the Project site's vegetation does not provide any quality habitat for candidate, sensitive, or special status species that may be regulated by the CDFW or USFWS.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?

RSP Final EIR Finding: The *RSP Final EIR* concluded that impacts associated with buildout of the RSP would be less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). No jurisdictional waters were identified in the RSP project area. No channels or other features that carry water, including blue line features or drainages with ordinary high water marks (OHWM) were observed during previous biological surveys of the RSP. In addition, no riparian habitat or areas of ponding exist in the RSP project area. Because no jurisdictional areas occur within the RSA project area, no impacts would occur to wetlands or riparian areas as a result of implementation of the RSP. (City of Rialto, 2010a, p. 4.4-10 and 4.4-12) No sensitive status plant communities were identified within the RSP project area. Therefore, no impacts to sensitive plant communities would occur as a result of implementation of the RSP. One sensitive plant species, mesa horkelia, has a moderate potential to occur on the RSP project area; however, it was not found during previous surveys. This species is listed as a 1B.1 plant by the California Native Plant Society (CNPS). Focuses surveys for this designation of species are usually not required as part of CEQA and the species does not have any direct legal protection under CEQA unless significant and unique populations of species of concern are present on the site. Because substantial or unique populations of mesa horkelia were not identified on the RSP project area, impacts to sensitive plant species was concluded to be less than significant. (City of Rialto, 2010a, p. 4.4-10 thorugh 4.4-11)

No Substantial Change from Previous Analysis: The same extent of physical disturbance would occur on the Project site as was analyzed by the RSP Final EIR, which encompasses the entire Project site. Under existing conditions, the Project site consists of undeveloped, vacant land that has been subject to on-going weed abatement activities, with no native or otherwise undisturbed habitat. Therefore, consistent with the *RSP Final EIR*, implementation of the proposed Project would result in less-than-significant impacts associated with riparian habitat or other sensitive natural communities.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

RSP Final EIR Finding: The *RSP Final EIR* found that the RSP would not have a substantial adverse effect on federally protected wetlands. Impacts were considered less than significant and no mitigation was required. No jurisdictional waters were identified on the RSP project area. No channels or other features that carry water, including blue line features or drainages with OHWM were observed during previous biological surveys of the RSP project area. In addition, no riparian habitat or areas of ponding exist on the RSP project area. Because no jurisdictional areas occur on the RSA project area, no impacts would occur to wetlands or riparian areas as a result of implementation of the RSP. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, pp. 4.4-10 and 4.4-12)

No Substantial Change from Previous Analysis: Consistent with conditions throughout the RSP project area, the Project site is surrounded by existing development and disturbed areas and therefore does not consist of any federally protected wetlands or jurisdictional waters. As such, consistent with the findings

of the *RSP Final EIR*, implementation of the proposed Project would not have a substantial effect on federally protected wetlands or jurisdictional waters. The Project would disturb RSP PA 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. Consistent with the finding of the *RSP Final EIR*, impacts would be less than significant and no mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

RSP Final EIR Finding: The *RSP Final* EIR found that implementation of the RSP would not have a substantial adverse effect on wildlife movement. Impacts were considered less than significant and no mitigation was required. The RSP project area is not a known wildlife corridor and also abuts urbanized areas on all sides. Because the RSP project area is not connected to a likely species habitat, has not been documented as an important wildlife corridor, and is disturbed in most areas, it is not considered a part of a highly functioning regional wildlife corridor. Therefore, the *RSP Final EIR* concluded that implementation of the RSP would have a less than significant impact on the regional movement of wildlife. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.4-12)

No Substantial Change from Previous Analysis: Consistent with conditions throughout the RSP project area, the Project site is surrounded by existing development and disturbed areas and therefore does not occupy an important location relative to wildlife movement. As such, consistent with the findings of the *RSP Final EIR*, implementation of the proposed Project would not have a substantial effect on local or regional wildlife. The Project would disturb a portion of *RSP* PA 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. Consistent with the finding of the *RSP Final EIR*, impacts would be less than significant and no mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

RSP Final EIR Finding: The *RSP Final EIR* found that implementation of the RSP would not conflict with local policies or ordinances related to the protection of biological resources. Impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1).

No Substantial Change from Previous Analysis: Consistent with the findings of the *RSP* Final EIR, the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Project would disturb a portion of *RSP* PA 11, which was evaluated for full disturbance as part of the RSP Final EIR. Additionally, the Project site does not contain any trees in the existing condition. Consistent with the RSP Final EIR, impacts would be less than significant and no mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

RSP Final EIR Finding: The *RSP Final EIR* found that the RSP would not conflict with the provisions of an adopted regional, state, or local HCP. Impacts were considered less than significant and no mitigation was required. The *RSP* project area is not located within a habitat conservation plan or natural community's conservation plan. Therefore, the *RSP Final EIR* concluded that the RSP would not conflict with any such plans. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a p. 4.9-18)

No Substantial Change from Previous Analysis: Like the entirety of the *RSP* area, the Project site is not located within an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, consistent with the *RSP Final EIR*, the proposed Project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The Project would disturb a portion of *RSP* PA 11, which was evaluated for full disturbance as part of the RSP Final EIR. Consistent with the RSP Final EIR, impacts would be less than significant and no mitigation is required.

Mitigation:
The mitigation measures identified in the *RSP Final EIR* are not applicable to the proposed Project site and no mitigation measures are required.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of biological resources.

4.5 CULTURAL RESOURCES

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource or an archeological resource as defined in § 15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

RSP Final EIR Finding: After the implementation of MM CR-1 through CR-4, the *RSP Final EIR* found that the implementation of the RSP would have a less-than-significant impact to historical and archaeological resources (City of Rialto, 2010b, Table 1-1).

A records search conducted for the *RSP Final EIR* identified that the majority of the RSP project area had been previously surveyed. The records search revealed that that were no prehistoric cultural resources and 29 cultural resources within the search radius of the RSP project area. (City of Rialto, 2010a, p. 4.5-4 thorugh 4.5-5 and Table 4.5-1) A pedestrian survey conducted in support of the *RSP Final EIR* identified

26 new historic-archaeological cultural resources and 55 buildings more than 45 years old. The list of newly discovered cultural resources, the residential structures more than 45 years old, and structure complexes more than 45 years old found is identified in *RSP Final EIR* Table 4.5-2. The majority of the previously undocumented resources were historic refuse scatters accompanied by possible structure remains. The remaining sites consisted of concrete pads or concrete foundation debris without an observable historic refuse scatter. Most of the sites were detected in recently vacant lots located along Baseline Road. As discussed in Section 2.0, *Project Description*, the Project site is located in PA 11 of the RSP. (City of Rialto, 2010b, Table 1-1). (City of Rialto, 2010a, pp. 4.5.7 through 4.5-8 and Table 4.5-2)

Given that the Phase I Cultural Resources Assessment was prepared to support a Program-level EIR, Mitigation Measure CR-1 was included which requires subsequent evaluation of sites that would be impacted as part of site-specific design plans for Planning Areas that contain resources. Also, the *RSP Final EIR* determined that RSP construction activities in the southern portion of the RSP area may inadvertently impact significant cultural resources and therefore all construction-related impacts of soil in the southern portion of the RSP must be monitored to avoid damage to potentially significant resources. (City of Rialto, 2010a, p. 4.5-12)

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is comprised of vacant and undeveloped land. As such, consistent with the findings of the *RSP Final EIR*, implementation of the proposed Project would not have a substantial effect on historical or archaeological resources. The Project would disturb a portion of *RSP* PA 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. Mitigation Measure CR-1 requires subsequent evaluation of sites that would be impacted as part of site-specific design plans for Planning Areas that contain resources. Consistent with the finding of the *RSP Final EIR*, impacts to historical and archaeological resources would be mitigated to below a level of significance.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

RSP Final EIR Finding: After the implementation of MM CR-5, the *RSP Final EIR* found that development in the RSP project area would have a less than significant impact on paleontological resources (City of Rialto, 2010b, Table 1-1).

The paleontological review of the RSP found that the RSP project area is located primarily upon Quaternary younger fan deposits of Holocene or historically recent age. This Holocene alluvium has a low potential for significant fossil deposits and is thereby assigned low paleontological sensitivity. However, these Holocene sediments may overlie earlier deposits that are also present in portions of the RSP project area near the eastern boundary. These deposits were mapped alternatively as either middle to later Pleistocene fan deposits or middle to later Pleistocene eolian dune sands. The most recent assessment interpreted these sediments as eolian in nature and assigned the deposits an undetermined paleontological sensitivity. Therefore, impacts of the RSP on paleontological resources was considered

potentially significant. However, after implementation of MM CR-5, impacts were reduced to less than significant. (City of Rialto, 2010a, pp. 4.5-12 and 4.5-13)

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is comprised of vacant and undeveloped land. As such, consistent with the findings of the *RSP Final EIR*, implementation of the proposed Project would not have a substantial effect on paleontological resources. The Project would disturb a portion of *RSP* PA 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. Consistent with the finding of the *RSP Final EIR*, impacts to paleontological resources would be mitigated to below a level of significance.

d) Disturb any human remains, including those interred outside of formal cemeteries?

RSP Final EIR Finding: The *RSP Final EIR* found that the RSP would not damage or destroy previously undiscovered burial sites. Impacts were considered less than significant and mitigation was not required. (City of Rialto, 2010b, Table 1-1)

The RSP project area is not located within a known or suspected cemetery and there are no known human remains within the RSP project area. In addition, State law relating to the discovery of human remains would provide guidance should remains be discovered. Therefore, the potential of the RSP to impact human remains was considered to be less than significant and no mitigation was required. Should human remains be discovered, requirements in Health and Safety Codes 7050.S-7055 are required to be followed. (City of Rialto, 2010a, p. 4.5-13)

No Substantial Change from Previous Analysis: The Project site is not located within a known or suspected cemetery and there are no known human remains on the Project site. If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, § 7050.5. Pursuant to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the NAHC by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work, means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code

§ 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be less than significant. Consistent with the *RSP Final EIR*, with mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be less than significant and no mitigation is required.

Mitigation:

The proposed Project implements *RSP Final EIR* MM CR-1 below. As discussed under Threshold (a), the conclusion from the RSP Final EIR was negative for the presence of cultural resources.

CR-1: When site specific design plans are submitted for approval within the Renaissance Specific Plan and associated project-level CEQA documentation prepared, a finding of significance must be established for all cultural resources located within the proposed Planning Area based upon the inventory of cultural resources provided in the Phase I Cultural Resources Assessment (MBA 2006e). As shown in Table 4.5-2 [of this Section], 25 Planning Areas exhibit one or more cultural resources. Prior to City approval of plans for development, significance evaluations of the resource(s) located in the specific Planning Area(s) must be conducted by a qualified professional. Recordation of identified cultural resources onto DPR523 form sets shall be undertaken during the significance evaluation(s), if such recordation have not yet occurred, as established under rules and regulations regarding such matters in effect at the time of the evaluation. This measure shall be implemented to the satisfaction of the City Development Services Director.

The findings from the *RSP Final EIR* determined that no prehistoric or historic sites are currently present on within the boundaries of the Project site. Consistent with the findings of RSP Final EIR, mitigation measures would not be required and monitoring of grading would not be recommended. Accordingly, *RSP Final EIR* mitigation measures CR-2 through CR-4 would not be applicable to the proposed Project.

Although the proposed Project would not result in any new or substantially increased impacts associated with cultural resources, the following standard mitigation measure has been identified in an abundance of caution.

CR-2: Prior to the issuance of a Grading Permit, the City of Rialto Building Official shall ensure that the Grading Plan contains the following notes:

1. If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

2. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior (SOI) standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission

Indians will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input.

3. If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to San Manuel Band of Mission Indians for review and comment.

a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s).

b. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

The findings from the *RSP Final EIR* determined that because of the presence of very young Quaternary (i.e., late Holocene) alluvial and alluvial fan deposits across the Project site, the low paleontological resource sensitivity typically assigned to these geologically young surficial deposits, and the lack of any known fossil specimens from this unit within many miles of the Project site, the potential for the proposed Project to impact paleontological resources would be less than significant and mitigation would not be required. Moreover, the Project site is not located within a portion of the RSP project area between Linden Avenue and the eastern boundary of the RSP, and is therefore not required to implement MM CR-5. The Project site was determined to have a low probability for discovery of paleontological resources, and monitoring during grading is not required.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of cultural resources.

4.6 GEOLOGY AND SOILS

Would the Project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

RSP Final EIR Finding: With implementation of MM GS-1 through GS-3, the *RSP Final EIR* found that impacts would be less than significant after implementation of MM GS-1 through GS-3 (City of Rialto, 2010b, Table 1-1).

The RSP project area is not located within a designated Alquist-Priolo Fault Zone and active faults are not known to traverse the RSP project area. Therefore, the likelihood of surface rupture was considered low and fault setbacks zones were not required for structures on the RSP project area. (City of Rialto, 2010a, p. 4.6-4)

The RSP project area would be subject to strong ground shaking in a large earthquake event occurring on the San Andreas, San Jacinto, and Cucamonga faults, or any as-yet unknown faults in the vicinity of the RSP project area. However, the RSP Project area is not in an area identified by the San Bernardino County or California Geological Survey as being susceptible to liquefaction. (City of Rialto, 2010a, p. 4.6-7)

Laboratory tests conducted on onsite soils indicated that seismic settlement potential is low. Therefore, impacts to the RSP project area relating to seismic settlement were considered less than significant. The RSP project area is relatively flat and does not contain any natural slopes. Due to the deep depth of groundwater and the characteristics of RSP project area soils, the *RSP Final EIR* concluded that the RSP project area demonstrates a low potential for lateral spreading. (City of Rialto, 2010a, p. 4.6-7)

No Substantial Change from Previous Analysis: Consistent with the *RSP Final EIR* findings, the Project site was determined to lie outside any Alquist-Priolo Special Studies Zone, therefore, the potential for damage due to direct fault rupture is less than significant.

The San Jacinto fault zone is located approximately 1.5 miles (2.5 kilometers) from the Project site. Consistent with the *RSP Final EIR* finding, conformance to the latest Building Code provisions would result in a less-than-significant impact associated with strong seismic ground shaking.

The geological conditions at the Project site that existed at the time the *RSP Final EIR* was certified have not changed. As such, consistent with the findings of the *RSP Final EIR*, the seismic settlement and liquefaction potential on-site is low. The Project would occur within RSP PA 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. Consistent with the finding of the *RSP Final EIR*, impacts associated with seismic-related ground failure and liquefaction would be less than significant and mitigation would not be required.

Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is relatively flat and does not contain any natural slopes. Consistent with the finding of the *RSP Final EIR*, impacts associated with lateral spreading and landsliding would be less than significant and mitigation would not be required.

b) Result in substantial soil erosion or the loss of topsoil?

RSP Final EIR Finding: With implementation of MM GS-4 through GS-6, the *RSP Final EIR* found that the RSP project would result in a less-than-significant impact associated with soil erosion or the loss of topsoil (City of Rialto, 2010a, Table 1-1). The nature of the RSP project area soils makes them moderately susceptible to erosion. This is especially true during site development when groundcover and vegetation would be removed and exposed to rain, wind, and other elements. Therefore, the *RSP Final EIR* determined that soil erosion impacts would require the implementation of MM GS-4 through GS-6.

No Substantial Change from Previous Analysis: Consistent with the findings of the *Final RSP EIR*, development of the Project site as proposed by the Project would disturb the Project site during grading and construction and expose the underlying soils, which would temporarily increase erosion susceptibility. In the long-term, development of the Project site would increase the extent of impervious surface cover and landscaping on the Project site, thereby reducing the potential for erosion and the loss of topsoil. The proposed Project would be required to adhere to standard regulatory requirements, including, but not limited to, requirements of a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit and the Project-specific Water Quality Management Plan (WQMP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. With mandatory compliance with the NPDES Municipal Stormwater Permit and the Project's WQMP, the Project's potential to result in substantial soil erosion or the loss of topsoil would be less than significant, consistent with the *RSP Final EIR* finding.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts to be less than significant with implementation of MM GS-1 through GS-6 (City of Rialto, 2010b, Table 1-1).

The RSP project area is relatively flat and does not contain any natural slopes. However, the *RSP Final EIR* determined that manufactured slopes could present significant hazards if not engineered and constructed to standards. Largely due to the depth to groundwater and the characteristics of onsite soils, the RSP project area demonstrates a low potential for lateral spreading. Therefore, impacts to the RSP project area relating to lateral spreading was considered less than significant. No reports of subsidence were reported in the vicinity of the RSP project area and intensive extraction of groundwater has not occurred in the area. Therefore, impact to the RSP project area related to regional subsidence were considered less than significant.

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site is relatively flat and does not contain any natural slopes. The Project site has been vacant since the time the *RSP Final EIR* was certified, therefore the impacts associated with lateral spreading, landsliding, subsidence, liquefaction, or collapse would be consistent with the findings of *RSP Final EIR* and be less than significant.

d) Be located on expansive soil, as defined in Table 18-1- B of the Uniform Building Code (1994), creating substantial risks to life or property?

RSP Final EIR Finding: Soils on the RSP project area were determined to exhibit few of the characteristics typical of expansive soils and have a very low expansion potential. Therefore, impacts to the RSP project area from expansive soils were considered less than significant and no mitigation was required. (City of Rialto, 2010a, p. 4.6-8)

No Substantial Change from Previous Analysis: Under existing conditions and consistent with the conditions that existed at the time the *RSP Final EIR* was certified, the Project site has not changed and has a very low expansion potential. Therefore, because the Project's buildings would not be located on an expansive soil, the soils on the Project site would not create substantial risks to life or property. The proposed Project's buildings would be designed in accordance with the most current Building codes. Accordingly, consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation would be required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

RSP Final EIR Finding: The RSP project area is anticipated to connect to a municipal sewer system, therefore, impacts arising from septic systems and alternative sewage systems were determined not applicable to the RSP project. Impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.6-9)

No Substantial Change from Previous Analysis: Consistent with the findings of *RSP Final EIR*, the Project site would connect to a municipal sewer system, therefore, impacts arising from septic systems and alternative sewage systems were determined not applicable to the Project. The Project does not propose the use of septic tanks or alternative waste water disposal systems. The proposed Project would install domestic sewer infrastructure and connect to the municipal sewer system. Consistent with the *RSP Final EIR,* impacts would be less than significant and no mitigation would be required.

Mitigation: The proposed Project would implement *RSP Final EIR* MM GS-1 through GS-6 below. With implementation of MM GS-1 through GS-6, impacts would be reduced to less than significant, consistent with the finding of the *RSP Final EIR*.

GS-1 Prior to the issuance of grading permits for each planning area of the project, the project applicant or its designee shall provide design-level geotechnical reports for those areas. These reports shall consider, but shall not necessarily be limited to, such factors as manufactured slope stability (if applicable), compressible soils, corrosive soils, and the engineering and construction of occupied or inhabited structures. The findings and recommendations contained in these reports shall be implemented. As necessary, the City may require additional studies and/or engineering protocols

to meet its requirements. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-2 Prior to the issuance of building permits for each planning area of the project, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be able to withstand a horizontal seismic acceleration of 0.96g. Specific design-level geotechnical reports shall be prepared by a State of California Certified Engineering Geologist for planning areas within the Specific Plan to determine that structures within those areas meet required design criteria. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-3 Prior to the issuance of building permits for each planning area, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be constructed to the standards outlined in the Uniform Building Code, the California Building Code, the design-level geotechnical reports, and/or other such standard as identified and required by the City. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-4 During construction and excavation activities on the project site, all temporary slopes (i.e., excavations and trenching) shall be adequately shored and/or flattened to a shallower gradient to lessen the possibility of failure. All Cal-OSHA regulations shall be implemented for excavations that will be entered by people. All excavations will be open only as long as is necessary and shall be backfilled immediately upon completion of work. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-5 Prior to the issuance of grading permits, the project applicant or its designee shall present an Erosion Control Plan (ECP) designed to lessen the impacts of erosion during construction. This plan shall comply with all applicable grading codes and water quality protection protocols. This plan shall be implemented during site construction. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-6 During grading and development of the project site, all oversized material (larger than 12 inches in largest dimension) shall be handled as recommended in the project geotechnical reports. This material may be placed in deeper fills, nonstructural areas, or disposed of offsite. This measure shall be implemented to the satisfaction of the City Development Services Director.

With implementation of the above *RSP Final EIR* MM GS-1 through GS-6, applicable standard conditions and the most recent building uniform codes, and compliance with the mitigation measures identified in the *RSP Final EIR*, impacts would be less than significant, consistent with the *RSP Final EIR* finding.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of geology and soils.

4.7 HAZARDS AND HAZARDOUS MATERIALS

Would the Project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

RSP Final EIR Finding: The *RSP Final EIR* determined that impacts associated with hazards and hazardous materials would be less than significant after implementation of MM HAZ-1 through HAZ-10. As shown on *RSP Final EIR* Exhibit 4.7-1, the *RSP Final EIR* evaluated the setting and recognized environmental conditions for areas identified as Properties A, B, C, and D within the (since closed) Rialto Municipal Airport (RMA). The proposed Project is not located within the identified RMA area. As such, the *RSP Final EIR* MM HAZ-1 through HAZ-3 are specific to the RMA area and would not apply to the proposed Project. The entire 1,445 acre RSP project area was considered for all other potential hazards and hazardous materials impacts, and impacts were determined to be less than significant after mitigation. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.7-9 and Exhibit 4.7-1)

Grading and construction activities may involve the limited transport, storage, usage, or disposal of hazardous materials, such as that fueling/servicing construction equipment. However, such activity is short-term or one-time in nature and is subject to federal, State, and local health and safety requirements. Adherence to federal, State, and local health and safety requirements would reduce the potential impacts associated with construction activities would be less than significant. (City of Rialto, 2010a, p. 4.7-29)

Once the RSP project is constructed, hazardous materials would be limited to those associated with residences and industrial/commercial operations. These include household fertilizers, pesticides, paints, solvent, household cleaners, pesticides, paints, and solvents. Because these materials are used in very limited quantities, they are not considered a hazard to the public. Regardless, adherence to federal, State, and local health and safety requirements regarding these substances would reduce the potential impacts to less than significant. (City of Rialto, 2010a, pp. 4.7-29 and 4.7-30) All cities within San Bernardino County must adopt a city hazardous waste management plan and enact an ordinance requiring that land use decisions be consistent with the County's plan, or incorporate the County's plan into the General Plan. The City of Rialto adopted a hazardous waste management plan by ordinance separate from the General Plan. The City's Hazardous Materials Policy is to be implemented in cooperation with the County's Department of Environmental health, and requires enforcement regulations regarding the dumping of commercial and industrial hazardous wastes to prevent contamination to groundwater supplies.

No Substantial Change from Previous Analysis: Development of the Project would result in the same level of impacts associated with hazards and hazardous materials as analyzed in the *RSP Final EIR*, which assumed full disturbance to the Project site and development of the Project site with commercial land uses. Under existing conditions, the Project site consists of undeveloped, vacant land. As shown on *RSP Final EIR* Exhibit 4.7-1, the *RSP Final EIR* evaluated the setting and recognized environmental conditions for areas identified as Properties A, B, C, and D within the (since closed) Rialto Municipal Airport (RMA). The proposed Project is not located within the identified RMA area. As such, the *RSP Final EIR* MM HAZ-1 through HAZ-3 are specific to the RMA area and would not apply to the proposed Project. The proposed Project would not create a significant hazards to the public associated with existing hazards or hazardous materials. Impacts would be less than significant.

Impact Analysis for Temporary Construction-Related Activities

As disclosed in the *RSP Final EIR,* heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project site during construction of the Project. This heavy equipment may be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be temporarily located on the Project site during construction activities. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the proposed Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, state, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the United States Environmental Protection Agency (USEPA), California Department of Toxic Substances Control (DTSC), and the Santa Ana Regional Water Quality control Board (RWQCB). With mandatory compliance with applicable hazardous materials regulations, the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during the construction phase. Thus, the Project's potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during the Project's construction phase would be less than significant.

Impact Analysis for Long-Term Operation

As disclosed in the *RSP Final EIR*, once the RSP project is constructed, hazardous materials would be limited to residences and industrial/commercial operations. The future building user(s) that would occupy the Project site are not yet identified.

Hazardous materials would be used during the course of a future building user's daily operations. For example, refrigeration associated with the food-service and convenience store uses would require the use and storage of a refrigerant, such as ammonia, which is a hazardous substance. Additionally, the gas station and car wash would include underground storage tanks and fueling pumps for the storage and dispensation of gasoline. Federal and State Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals that may be used by businesses on the Project

site. Regulations also are in place that requires businesses to plan and prepare for possible chemical emergencies. Any business that occupies a building on the Project site and that handles/stores substantial quantities of hazardous materials (as defined in §25500 of California Health and Safety Code, Division 20, Chapter 6.95) would require a permit from in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material.

For any businesses that would use or store hazardous materials within the Project site, including the gas station and car wash use, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances. In addition, and consistent with the *RSP Final EIR*, the City's Hazardous Materials Policy would be implemented in cooperation with the County's Department of Environmental health, and the proposed Project would comply with the enforcement regulations regarding the dumping of commercial and industrial hazardous wastes to prevent contamination to groundwater supplies (as described above). With mandatory regulatory compliance, the Project is not expected to pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. With mandatory regulatory compliance, potential hazardous materials impacts associated with long-term operation of the Project would be less than significant.

The Project site is not listed on a list of hazardous materials sites pursuant to Government Code Section 65962.5 (CalEPA, 2016). Thus, impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

RSP Final EIR Finding: The *RSP Final EIR* determined that no schools were located within one-quarter mile of the RSP project area. Impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1)

No Substantial Change from Previous Analysis: No schools are located within one-quarter mile of the Project site. The closet school site is Wayne Rubble Middle School located at 6792 Juniper Avenue, Fontana, CA, approximately 1.2 miles southwest of the Project site. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

RSP Final EIR Finding: The *RSP Final EIR* anticipated the closure of the RMA and noted that prior to its closure; development may occur within the RMA's Influence Area. Such development would be required to comply with the existing requirements, standards and procedures of the Airport Comprehensive Land Use Plan. The continued compliance with these requirements would ensure that no significant impacts would occur with respect to airport safety. Impacts were considered less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). The RMA which occupied the easterly 443 acres of the RSP project area has since closed.

The *RSP Final EIR* determined that there were no private airfields located within two miles of the RSP project area (City of Rialto, 2010a, p. 4.7-24)

No Substantial Change from Previous Analysis: The RMA which occupied the easterly 443 acres of the RSP project area has since closed. There are no operating private airfields within two miles of the Project site. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

RSP Final EIR Finding: The *RSP Final EIR* determined that the RSP project area is a typical mixed-use project that would not interfere with the implementation of emergency response plans or the activities of emergency responders. Therefore, the *RSP Final EIR* found that implementation of the RSP would not result in impacts regarding emergency plans. Impacts were found to be less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.7-31)

No Substantial Change from Previous Analysis: The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. The proposed Project would not alter the configuration of any roadways within the Project area that could be used for emergency evacuation. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City's discretionary review process, the City reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project site. Consistent with the *RSP Final EIR* finding, the proposed Project would not interfere with an adopted emergency response plan or emergency evacuation plan. Accordingly, consistent with the *RSP Final EIR finding*, impacts would be less than significant and no mitigation is required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

RSP Final EIR Finding: According to the Rialto General Plan, the RSP project area is categorized as having a "Low" risk from wildland fires. In addition, the RSP project area is not located near an urban/wildlands interface area. Therefore, it was determined that the RSP would not create significant impacts related to wildland fire hazards. Impacts were considered less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.7-31)

No Substantial Change from Previous Analysis: As analyzed in the *RSP Final EIR*, the RSP project area, which includes the Project site, is within an area categorized by the Rialto General Plan as having a "Low" risk from wildland fires and the RSP project area is not located near an urban/wildlands interface area. The Project site is surrounded by roadways and undeveloped vacant land. The nearest wildlands are the San Bernardino Mountains which are located approximately 3.0 miles northeast of the Project site and nearby intervening development. Accordingly, consistent with the *RSP Final EIR* finding, the proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

Mitigation: The site assessment and report of findings prepared for the RSP project identified several potential REC's in the RMA area. As discussed above, the Project site is not located in the RMA area, and does not contain potential REC's. Thus, *RSP Final EIR* MM HAZ-1 through HAZ-3 are not applicable to the proposed Project. The Project does not propose the drilling of new wells and no wells are present on the Project site under existing conditions; therefore, MM HAZ-4 is not applicable to the proposed Project. HMC determined that there were no REC's present on the Project site and no REC's associated with illegal dumping occur on the Project site; therefore, MM HAZ-5 is not applicable to the Project site. The Project site is not located immediately adjacent to an existing easement for the underground pipeline; therefore, HAZ-6 is not applicable to the proposed Project. The proposed Project does not contain any structures; therefore, there is no potential for asbestos or lead based paint to occur on the Project site. Accordingly, *RSP Final EIR* MM HAZ-7 is not applicable to the proposed Project. No underground storage tanks are present on the Project site; therefore, *RSP Final EIR* MM HAZ -8 is not applicable to the proposed Project. Lastly, because the Project does not propose a school site, *RSP Final EIR* MM HAZ-10 is not applicable to the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of hazard and hazardous materials.

4.8 HYDROLOGY AND WATER QUALITY

Would the Project:

a) Violate any water quality standards or waste discharge requirements?

RSP Final EIR Finding: The *RSP Final EIR* found that impacts would be less than significant after implementation of MM HYD-1 through HYD-6 (City of Rialto, 2010b, Table 1-1). The Santa Ana Regional Water Quality Control Board (SARWQCB) regulates state water quality standards in the City of Rialto. Beneficial uses and water quality objectives for surface water and groundwater resources in the RSP project area are established in the water quality plans for each RWCQB and mandated by the State Porter-Cologne Act and Clean Water Act (CWA). The RWQCB also implements the CWA Section 303(d) total maximum daily load (TMDL) process, which consists of identifying candidate water bodies where water quality is impaired by the presence of pollutants. The RWQCB also is responsible for administering the National Pollutant Discharge Elimination System (NPDES) permit program which is designed to manage and monitor point and non-point source pollution. NPDES stormwater permits for general construction activity are required for projects that disturb more than one acre of land. (City of Rialto, 2010a, p. 4.8-2 and Table 1-1)

The *RSP Final EIR* disclosed that the cumulative effect of runoff from land uses in the RSP region could have significant impacts on surface water quality, with both point and non-point source discharges contributing to contaminants to surface waters. Pollutants of concern in discharges from area land uses can include heavy metals, excessive sediment production for erosion, petroleum hydrocarbons from sources such as motor oil, pesticides, excessive nutrient loads, and trash. No site specific water quality data was available to characterize existing surface water quality conditions for the RSP project area but the runoff from the RSP project area is generally categorized as "urban" in nature. (City of Rialto, 2010a, p. 4.8-4). Historical monitoring data for the RSP project area indicated that some local wells were experiencing increased contamination by perchlorate, a chemical used for many years by industries in the RSP project area (City of Rialto, 2010a, p. 4.8-5).

During Project review, approval, and permitting, the City of Rialto requires new development projects to address the quality and quantity of stormwater runoff through the incorporation of permanent (post-construction) Best Management Practices (BMPs) into a project's design (City of Rialto, 2010a, p. 4.8-3). As a standard condition of approval, the City of Rialto and the RWQCB requires all projects within the RSP project area to prepare and implement a Water Quality Management Plan (WQMP) to control and reduce polluted runoff from the RSP project area, which would be include the identification of specific measures for the treatment and disposal of runoff from the car wash operation. WQMP's are required to provide specific BMPs that are designed to reduce urban runoff pollution. Therefore, compliance with this standard condition of approval would reduce the RSP project's impacts to less than significant. (City of Rialto, 2010a, p. 4.8-9)

No Substantial Change from Previous Analysis:

<u>Construction-Related Water Quality Impacts</u>
Construction of the proposed Project would involve grading, paving, utility installation, building construction, and landscaping installation, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other pollutants with the potential to affect water

quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures, which is consistent with the finding of the *RSP Final EIR.*

Pursuant to the requirements of the Santa Ana RWQCB, the proposed Project would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one-acre of total land area. Mandatory adherence to a NPDES Permit would ensure that the proposed Project does violate any water quality standards or waste discharge requirements during construction activities. Therefore, consistent with the *RSP Final EIR*, water quality impacts associated with construction activities would be less than significant.

Post-Development Water Quality Impacts

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e. g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

RSP Final EIR Finding: The *RSP Final EIR* found that the RSP project would have a less than significant impact in regards to groundwater depletion and no mitigation was required. The RSP project does not propose to use groundwater from beneath the RSP project area. Rather, water supplies would be brought in via existing water supply networks from sources outside of the RSP area. Potable water would be obtained via existing entitlements through the water conveyers that serve the RSP project area. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.8-9)

No Substantial Change from Previous Analysis: The Project does not propose any water wells that would directly extract groundwater. Therefore, with buildout of the proposed Project, the local groundwater levels would not be adversely affected. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge.

The Project site is located within the service area of the Fontana Water Company (FWC). FWC's water supply sources include water produced from local groundwater basins, local surface water, and imported surface water. FWC currently derives its water supply from groundwater wells that produce water from three adjudicated groundwater basins (Chino Basin, Rialto Basin, and Lytle Basin) and one un-adjudicated groundwater basin (No Man's Land Basin), with the Chino Basin as FWC's primary groundwater source. FWC also derives a portion of its water from local surface flows from Lytle Creek and untreated imported State Water Project water from San Bernardino Valley Municipal Water District and Inland Empire Utilities Agency. The RSP Final EIR determined that FWC's supplies are sufficient to meet the demands of the RSP project area, and therefore the demands of the proposed Project.

Consistent with the RSP Final EIR finding, the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a

net deficit in aquifer volume or a lowering of the local groundwater table level. Thus, consistent with the RSP Final EIR finding, impacts would be less than significant and no mitigation is required.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

RSP Final EIR Finding: The *RSP Final EIR* determined impacts associated with drainage pattern alterations and storm water drainage systems to be less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1).

No Substantial Change from Previous Analysis: As contemplated by the *RSP Final EIR*, development of the Project site would alter the existing ground contours; however, under proposed conditions, surface water runoff discharged from the Project site would follow a similar pattern across the site as occurs under existing conditions. The proposed Project would include a collection system that would convey stormwater into the existing stormwater facilities in accordance with the RSP. As the backbone stormwater infrastructure that was identified in the RSP was sized to accommodate the development of the Project site with commercial uses, the proposed Project would not contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.

Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

f) Otherwise substantially degrade water quality?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts to be less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1).

No Substantial Change from Previous Analysis: There are no conditions associated with the proposed Project that would otherwise result in the substantial degradation of water quality beyond what is described above in Thresholds (c), (d), or (e).

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or FIRM or other flood hazard delineation map?

h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

i) Result in inundation by seiche, tsunami, or mudflow?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts to be less than significant and no mitigation was required. The RSP project area is not located within a 100-year FEMA flood zone. In addition, there are no dams, reservoirs, or large water bodies near the RSP project area. Therefore, the *RSP Final EIR* determined that implementation of the RSP would not be impacted by any kind of flood hazards and the impacts related to flooding, flooding hazards or inundation by seiches, tsunami, or mudflow. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, pp. 4.8-5 and 4.8-9 through 4.8-10)

No Substantial Change from Previous Analysis: The proposed Project does not involve the development of any housing. Therefore, there is no potential for the proposed Project to place housing within a 100-year flood hazard area.

There are no levees or dams in the vicinity of the Project site. The nearest dam or levee is Lytle Creek levee located approximately 2.5 miles northeast of the Project site and Hawker Crawford Channel located approximately 2.9 miles north of the Project site. Thus, the proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

The Pacific Ocean is located more than 40 miles from the Project site. Thus, there is no potential for tsunamis to impact the Project site. In addition, the Project site and immediate surrounding area do not contain steep hillsides subject to mudflow. There are no water bodies in close proximity to the Project site that would be subject to seiches.

Mitigation:

The proposed Project would implement the following *RSP Final EIR* mitigation measures to reduce hydrology and water quality impacts to less than significant.

Flood Control/Drainage Channels

HYD-1 Prior to issuance of grading permits, the developers or their designees shall coordinate the design and obtain approval of all flood control and storm drain structures as identified in project hydrology studies. The developers or their designees shall provide evidence of this approval to the City Public Works Department. These improvements shall be consistent with any master planning efforts of the County to the satisfaction of the City Engineer.

HYD-2 The developers or their designees shall obtain a General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activity General Permit). The developers or

their designees shall provide a copy of this permit to the City Public Works Department prior to the issuance of grading permits.

Water Quality

HYD-3 Prior to the issuance of grading permits, the developers or their designees shall prepare a WQMP and an Erosion and Sediment Control Plan (ESCP) to implement the most appropriate BMPs and to prevent any significant removal and/or downstream deposition of soil from the project site during construction. The WQMP and ESCP shall contain provisions requiring that all erosion control measures and structures be maintained and repaired as needed for the life of the project. Prior to the issuance of a grading permit, the City Development Services Department, Engineering Division shall approve the WQMP and ESCP based on review and input by the RWQCB. At the request of the developer, the City Public Works Department may accept a Storm Water Pollution Prevention Plan (SWPPP) as a substitute for the ESCP as long as it fulfills the intent of this measure to an equivalent degree. The SWPPP or ESCP shall be prepared to the satisfaction of the City Public Works Department. The WQMP and ESCP or SWPPP shall include, but is not limited to, the following:

a) Specify the timing of grading and construction to minimize soil exposure to winter rain periods experienced in southern California;

b) Natural vegetation shall be retained on all areas that will not be disturbed for grading, except areas that must be cleared and revegetated as part of a fuel modification program;

c) All slopes greater than five feet in height shall be evaluated to define the optimum length and steepness to minimize flow velocity and erosion potential. Lateral drainage collection systems shall be incorporated at the base of slopes, when determined appropriate, to transport flows in a controlled, non-erodible channel;

d) Indicate where flows on the site can be diverted from denuded areas and carried in the natural channels on the site;

e) Construct man-made channels to minimize runoff velocities;

f) Disturbed areas shall be vegetated and mulched immediately after final grades have been established;

g) Sediment traps, basins, or barriers (silt fences, hay bales, etc.) shall be established on the property to prevent the release of “first flush” urban pollutants, including sediment, from developed areas, including the emergency access roads. The design and location of these improvements shall be identified in the plan subject to review and approval by the City;

h) Drainage facilities designed to transport flows shall be described and the adequacy of the channel shall be verified by City approval of a detailed drainage analysis;

i) An inspection and maintenance program shall be included to ensure that any erosion, which does occur either on or offsite as a result of the project, will be corrected through a remediation or restoration program within a time frame specified by the City;

j) Confirmed observations by the City of uncontrolled runoff being carried onsite will be grounds for suspension or revocation of any grading or building permit in process, or any discretionary permit subsequently applied for until the problem is resolved to the satisfaction of the City Public Works Department.

HYD-4 Prior to the issuance of building permits, graded but undeveloped land shall be maintained in a relatively weed-free condition and/or planted with interim landscaping within 180 days of completion of grading, unless building permits are obtained. This measure shall be implemented to the satisfaction of the Development Services Director.

HYD-5 Prior to the issuance of occupancy permits, planting of developed land shall comply with the NPDES Best Management Practices Construction Handbook Section 6.2 to the satisfaction of the City Engineer and/or Public Works Director as applicable.

HYD-6 Prior to issuance of the first occupancy permit, the developers or their designees shall provide proof to the Public Works Department that the onsite drainage facilities will be maintained by the County, City, HOA, or equivalent. The developer must demonstrate that these facilities will be adequately maintained by an appropriate mechanism or organization, to the satisfaction of the City Public Works Department.

Conclusion: With the implementation of *RSP Final EIR* MM HYD -1 through HYD-6, **i**mpacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of hydrology and water quality.

4.9 LAND USE AND PLANNING

Would the Project:

a) Physically divide an established community?

RSP Final EIR Finding: The *RSP Final EIR* found that implementation of the RSP project would not physically divide an established community. Impacts were considered less than significant and no mitigation was required. The *RSP Final EIR* considered much of the RSP as currently vacant or developed with abandoned airport-associated uses. Due to its location and design, the *RSP Final EIR* determined that

redevelopment of the RSP project area would not interfere with or divide an existing community. (City of Rialto, 2010b, Table 1-1)

No Substantial Change from Previous Analysis: The Project site is comprised of vacant and undeveloped land that is located within the geographical limits of the RSP and envisioned for full buildout according to the RSP. As previously depicted on Figure 2-9, *Surrounding Land Use and Development,* the Project site is bound on the south by W. Renaissance Parkway and on the east by Alder Avenue. North of the Project site is SR-210 and the off-ramp which leads to Alder Avenue. Directly west of the Project site is vacant land in the RSP project area and W. Renaissance Parkway. To the south of the Project site are public facilities. Directly east of the Project site is Alder Avenue and vacant land within the RSP project area. Thus, the Project site is already surrounded by development and planned buildout of the RSP; thus, consistent with the finding of the *RSP Final EIR,* development of the proposed Project on the Project site would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

RSP Final EIR Finding: With implementation of the RSP as proposed, and application of standard City conditions of approval, the *RSP Final EIR* considered land use plan consistency impacts as less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) The *RSP Final EIR* determined that the RSP project was consistent with the City's General Plan. The RSP provides guidance and direction for future development in the RSP and any proposed development will be required to abide by the requirements of the RSP. (City of Rialto, 2010a, Table 1-1 and 4.9-18 and 4.9-19)

No Substantial Change from Previous Analysis: As depicted on Figure 2-11, *Renaissance Specific Plan Land Use Map*, the Project site is located within a portion of Planning Area 11 of the RSP. The RSP designates the Project site as Freeway Commercial (FC). FC uses are described as retail uses serving the community and traveling public (retail, travel, services, restaurants, lodging, drug stores, home improvement centers, entertainment centers, health clubs, regional shopping centers, and automobile dealerships. (City of Rialto, 2010a, Table 3-3). The proposed Project would include commercial land uses (including hotel, gas station and food-service uses) that are consistent with the FC designation. As indicated throughout this environmental assessment, the proposed Project would not result in a new significant impact or a more severe impact than previously disclosed by the *RSP Final EIR.* The area of physical disturbance would be identical. As such, there would be no conflicts with plans and policies adopted for avoiding or reducing adverse effects on the environment.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts as less than significant and no mitigation was required. The RSP project is not located within a habitat conservation plan or natural community's

conservation plan. (City of Rialto, 2010b, Table 1-1) Therefore, buildout of the RSP would not conflict with any such plan. (City of Rialto, 2010a, p. 4.9-18)

No Substantial Change from Previous Analysis: The Project site is not located within an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, consistent with the *RSP Final EIR*, the proposed Project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Consistent with the *RSP Final EIR*, impacts would be less than significant and no mitigation is required.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: The proposed Project would not result in a conflict with any applicable plan or policy that was adopted for the purpose of avoiding or mitigating an environmental effect. Also, the Project site is not located within an adopted HCP. As such, implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of land use and planning.

4.10 MINERAL RESOURCES

Would the Project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts related to mineral resources to be less than significant and no mitigation was required. Based on a review of the Mineral Land Classification Report, approximately two-thirds of the RSP project area was found to be mapped as Mineral Resource Zone 2 (MRZ-2), which are identified as areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. However, the *RSP Final EIR* concluded that the mapping was based only on the amount of subsurface materials present in the area, not on the practical availability of those resources for extraction and use. The mapping did not take into consideration mineral resources that were already overlain by urban uses or otherwise incompatible uses. The *RSP Final EIR* determined that subsequent urbanization over the last two decades since the Mineral Land Classification Report was compiled had rendered large portions of the area unavailable for future mineral extraction activities. In addition, the RSP project area is surrounded on all sides by urban uses which are incompatible with mineral extraction activities. A great deal of the unoccupied lands within the RSP project area is broken up into isolated properties by subdivisions, roadways, and other manifestations of urban growth. In summary, because mining operations on the RSP project area would directly conflict with the existing uses in the RSP project area, the *RSP Final EIR* found

that impacts in regards to mineral resources to be less than significant. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a pp. 4.10-2 and 4.10-3)

No Substantial Change from Previous Analysis: Consistent with the *RSP Final EIR* finding, as identified on *RSP Final EIR* Exhibit 4.10-1, although the Project site is located in an area mapped MRZ-2, the site is surrounded by urban uses and mining operations would directly conflict with the existing uses. The Project would fully develop RSP PA 11, which was evaluated for full development with non-mining uses as part of the *RSP Final EIR*. Therefore, consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation would be required.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of mineral resources.

4.11 NOISE

Would the Project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

RSP Final EIR Finding:

Short-Term/Construction-Related Noise Impacts: With the implementation of the mitigation measures provided, the *RSP Final EIR* considered short-term/construction-related noise impacts as less than significant (City of Rialto, 2010a, p. 4.11-65).

Short-Term/Construction-Related Vibration Impacts: With the implementation of the mitigation measures provided, the *RSP Final EIR* considered the short-term construction-related vibration impacts as less than significant (City of Rialto, 2010a, p. 4.11-65).

Off-Site Traffic Noise Impacts: The *RSP Final EIR* found that under Year 2011, 2015, and 2020 conditions, some roadway segments would experience potentially significant noise impacts due to the off-site traffic generated by the RSP project. The off-site traffic noise impact of the RSP project was considered to be significant and unavoidable. MM-6 was identified to reduce the traffic noise impacts to future residential and commercial land uses within the RSP, but not to a less-than-significant level.

Operational (Stationary-Source Noise): The *RSP Final EIR* identified the long-term operational (stationary-source) noise level impacts associated with land uses in the RSP as less than significant with mitigation. The *RSP Final EIR* included a mitigation measure that requires additional analysis for new developments to reduce the noise levels from commercial uses to nearby noise-sensitive residential homes.

No Substantial Change from Previous Analysis: Urban Crossroads, Inc. prepared a noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Project and to confirm the conclusions of the *RSP Final EIR* as they pertain to the Project site (RSP Planning Area 11). The Project's noise study is included in this EIR Addendum as *Technical Appendix C*. (Urban Crossroads, Inc., 2016c).

Significance Criteria

Noise Impacts would be considered significant if any of the conditions identified in Table 4-9, *Noise Significance Criteria Summary,* occur as a direct result of the proposed development.

Table 4-9 Noise Significance Criteria Summary

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site[1]	Noise-Sensitive	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive	if ambient is < 65 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
On-Site[2]	Non-Noise-Sensitive	General Commercial Land Use Exterior	65 dBA CNEL *normally acceptable;* 75 dBA CNEL *conditionally acceptable*	
		General Commercial Land Use Interior	45 dBA CNEL	

1 Source: FICON, 1992
2 Source: City of Rialto General Plan Safety & Noise Element, Exhibit 5.5 and Implementation Plan, Measure 8.94. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, Inc., 2016c, Table 4-2)

A. Construction Noise Impact Analysis

Construction Noise Standards

To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this analysis presents the appropriate construction noise standards for the City of Rialto. However, the permitted hours of construction for the City of Rialto are the only applicable hour restrictions for the Project since the construction activity will be within the City of Rialto jurisdiction. (Urban Crossroads, Inc., 2016c, p. 59)

Construction Noise Level Threshold

To evaluate whether the Project will generate a substantial periodic increase in short-term noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA Leq is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time period, they are expressed as Leq noise levels. Therefore, the noise level threshold of 85 dBA Leq over a period of eight hours or

more is used to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations. (Urban Crossroads, Inc., 2016c, pp. 59-60)

Construction Noise Levels

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers and portable generators that when combined can reach high levels. The number and mix of construction equipment is expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating (Urban Crossroads, Inc., 2016c, p. 60)

As shown on Exhibit 9-A, *Receiver Locations*, of the Project's noise study (*Technical Appendix C*), the closest noise receivers are located approximately 2,040 feet west of the Project site on Coronado Avenue, which are the existing residential homes closest to the Project site.

Construction Noise Analysis

To describe the Project construction noise levels, Urban Crossroads, Inc. collected measurements for similar activities at several construction sites. Table 4-10, *Unmitigated Construction Equipment Noise Levels Summary*, provides a summary of the noise levels from each stage of construction at each of the sensitive receiver locations. The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the closest point from the center of construction activity. As identified on Table 4-10, the unmitigated peak construction noise levels at the nearby sensitive receiver locations will range from 41.4 to 42.3 dBA Leq, which would be below the construction noise level threshold of 85 dBA Leq at the nearby sensitive receiver locations. Therefore, the construction of the Project would result in a less than significant noise impact at the nearby sensitive receiver locations during peak construction activity. (Urban Crossroads, Inc., 2016c, pp. 66-67)

Table 4-10 Unmitigated Construction Equipment Noise Levels Summary

Receiver Location[1]	Construction Phase Hourly Noise Level (dBA Leq)					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak Activity[2]
R1	42.3	42.3	30.9	34.4	30.2	42.3
R2	42.3	42.3	30.9	34.3	30.2	42.3
R3	42.1	42.1	30.7	34.1	30.0	42.1
R4	41.4	41.4	30.0	33.4	29.3	41.4

[1] Noise receiver locations are shown on Exhibit 10-7 of *Technical Appendix C.*

[2] Estimated construction noise levels during peak operating conditions.

(Urban Crossroads, Inc., 2016c, Table 10-7)

Construction Vibration Impacts

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent vibration effects. The proposed Project's construction activity most likely to cause vibration impacts is the operation of heavy construction equipment. Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to a building, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. Heavy equipment such as large bulldozers would not operate close enough to any residences to cause a vibration impact.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading and paving. Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec (PPV) at a distance of 25 feet. At distances ranging from 2,040 to 2,276 feet from the Project site, construction vibration velocity levels are expected to approach 0.001 in/sec PPV, as shown in Table 4-11, *Construction Equipment Vibration Levels*. Based on the County of San Bernardino vibration standard of 0.2 in/sec PPV, the construction-related vibration impacts are considered less than significant. (Urban Crossroads, Inc., 2016c, pp. 67-68)

Further, vibration levels at the site of the closest sensitive receiver would not be sustained during the entire construction period, but would occur rather only during the times that heavy construction equipment is operating at the Project site perimeter. Moreover, construction at the Project site would be restricted to daytime hours consistent with City of Rialto requirements thereby eliminating potential vibration impacts during the sensitive nighttime hours. (Urban Crossroads, Inc., 2016c, p. 68)

Table 4-11 Construction Equipment Vibration Levels

Receiver Location[1]	Distance To Const. Activity (Feet)	Receiver PPV Levels (in/sec)[2]				Peak Particle Vibration (PPV)	Threshold Exceeded?[4]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer		
R1	2,040'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R2	2,052'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R3	2,099'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R4	2,276'	0.0000	0.0000	0.0001	0.0001	0.0001	No

[1] Noise receiver locations are shown on Exhibit 10-9 of *Technical Appendix C.*

[2] Based on the Vibration Source Levels of Construction Equipment included on Table 6-6 in Technical Appendix H1.

[3] Does the peak vibration exceed the maximum acceptable vibration threshold?

(Urban Crossroads, Inc., 2016c, Table 10-9)

B. Transportation-Related Noise Impact Analysis

Existing Noise Level Measurements

To assess the existing noise level environment, four 24-hour noise level measurements were taken at sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A of *Technical Appendix C* provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, January 12th, 2015. Appendix 5.1 of Technical Appendix C includes study area photos. To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. (Urban Crossroads, Inc., 2016c, p. 23)

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network. This includes the auto and heavy truck activities on SR-210 near the noise level measurement locations. Table 4-12, *24-Hour Ambient Noise Level Measurements*, provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. (Urban Crossroads, Inc., 2016c, pp. 25-26)

Table 4-12 24-Hour Ambient Noise Level Measurements

Location[1]	Distance To Project Boundary (Feet)	Description	Energy Average Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	1,940'	Located west of the Project site on Palmetto Avenue east of existing residential homes and north of an existing industrial use.	69.9	68.4	75.3
L2	1,550'	Located west of the Project site on Highland Avenue, adjacent to SR-210.	73.0	71.9	78.8
L3	50'	Located at the northern Project site boundary and the SR-210 eastbound off ramp.	71.3	70.1	76.9
L4	3,290'	Located on Tamarind Avenue south of the Project site east of existing industrial uses and south of an existing residential home.	62.0	59.8	67.0

1 See Exhibit 5-A for the noise level measurement locations.
2 Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Methods and Procedures

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. Table 4-13, *Off-Site Roadway Parameters*, presents the roadway parameters used to assess the Project's off-site transportation noise impacts. (Urban Crossroads, Inc., 2016c, p. 35)

Based on the Project's TIA (*Technical Appendix D1*), the proposed Project is expected to generate a net total of approximately 5,262 trip-ends per day on a typical weekday (actual vehicles) with 432 AM net peak hour trips and 380 PM net peak hour trips.

Table 4-13 Off-Site Roadway Parameters

ID	Roadway	Segment	Adjacent Land Use[1]	Distance From Centerline To Nearest Adjacent Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Sierra Av.	n/o Highland Av.	Community Commercial	60'	45
2	Sierra Av.	s/o Highland Av.	Residential	60'	45
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	32'	45
4	Alder Av.	n/o SR-210 WB Ramps	Employment	50'	50
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	50'	50
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	50'	50
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	50'	50
8	Alder Av.	n/o Walnut Av.	Employment	50'	50
9	Alder Av.	s/o Walnut Av.	Business Center	50'	50
10	Alder Av.	n/o Baseline Av.	Employment	50'	50
11	Alder Av.	s/o Baseline Av.	Residential	50'	40
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	161'	70
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	161'	70
14	Highland Av.	e/o Sierra Av.	Residential	52'	45
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	50'	50
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	50'	50
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	50'	50
18	Baseline Av.	w/o Alder Av.	Residential	50'	50
19	Baseline Av.	e/o Alder Av.	Residential	50'	50

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the City of Rialto General Plan, Renaissance Specific Plan, and the City of Fontana General Plan Circulation Elements.
[3] Posted speed limits.

Off-Site Transportation Noise Impacts

To assess the off-site transportation Community Noise Exposure Level (CNEL) impacts associated with the proposed Project, noise contours were developed based on the Project's TIA (*Technical Appendix D1)*. Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- **Existing Without / With Project:** This scenario refers to the existing present-day noise conditions, without and with the proposed Project.

- **Existing plus Ambient Growth (EA) 2019 Without / With Project:** This scenario refers to the background noise conditions at future Year 2019 without and with the proposed Project plus ambient growth.

- **EA plus Cumulative 2019 Without / With Project:** This scenario refers to the background noise conditions at future Year 2019 without and with the proposed Project plus ambient growth. This scenario corresponds to Year 2019 conditions, and includes all cumulative projects identified in the Project's TIA. (Urban Crossroads, Inc., 2016c, p. 41)

Existing Plus Project Traffic Noise Level Contributions

As identified in Table 4-14, *Off-Site Project-Related Traffic Noise Impacts on the Existing Condition*, the proposed Project is calculated to generate exterior noise level increases of 0.1 to 1.7 dBA CNEL. The increase of 1.7 dBA CNEL would occur on one roadway segment: Palmetto Avenue south of Renaissance Parkway. This roadway segment passes non-noise sensitive land uses, so the applicable threshold of significance is an increase of 3 dBA or more as the ambient noise levels are greater than 65 dBA CNEL (refer to Table 4-9). Based on the significance criteria, the Project-related noise level increases are considered less than significant under Existing Plus Project conditions at the land uses adjacent to roadways conveying Project traffic. As such, mitigation is not required. (Urban Crossroads, Inc., 2016c, p. 48)

Table 4-14 Off-Site Project-Related Traffic Noise Impacts on the Existing Condition

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	72.7	72.8	0.1	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.5	71.5	0.0	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	61.7	63.4	1.7	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.0	70.0	0.0	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	70.6	70.9	0.3	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.6	72.0	0.4	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.4	71.7	0.3	No	No
8	Alder Av.	n/o Walnut Av.	Employment	71.3	71.6	0.3	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	70.9	71.3	0.4	No	No
10	Alder Av.	n/o Baseline Av.	Employment	70.9	71.3	0.4	No	No
11	Alder Av.	s/o Baseline Av.	Residential	67.2	67.4	0.2	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.3	76.4	0.1	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.1	76.2	0.1	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.0	66.5	0.5	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.5	66.2	0.7	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	64.8	66.3	1.5	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	64.9	65.1	0.2	No	No
18	Baseline Av.	w/o Alder Av.	Residential	69.7	69.8	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	70.5	70.7	0.2	No	No

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Significance Criteria (Section 4).

Existing Plus Ambient Growth (2019) Project Traffic Noise Level Contributions

Table 4-15, EA (2019) Off-Site Project-Related Traffic Noise Impacts, presents a comparison of the EA 2019 without and with Project conditions CNEL noise levels. As identified in Table 4-15, the proposed Project would generate less than significant noise level increases of up to 1.6 dBA CNEL on the study area roadway segments. Based on the significance criteria for noise-sensitive and non-noise-sensitive land uses, the Project-related increases represent a less than significant impact under EA 2019 conditions. (Urban Crossroads, Inc., 2016c, p. 48)

Table 4-15 EA (2019) Off-Site Project-Related Traffic Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	73.1	0.0	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.8	71.9	0.1	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	63.6	1.6	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.3	70.4	0.1	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	71.0	71.3	0.3	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.9	72.3	0.4	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.7	72.0	0.3	No	No
8	Alder Av.	n/o Walnut Av.	Employment	71.6	71.9	0.3	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	71.2	71.6	0.4	No	No
10	Alder Av.	n/o Baseline Av.	Employment	71.3	71.6	0.3	No	No
11	Alder Av.	s/o Baseline Av.	Residential	67.6	67.7	0.1	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.7	76.7	0.0	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.5	76.5	0.0	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.4	66.8	0.4	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.9	66.5	0.6	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	65.2	66.6	1.4	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	65.2	65.5	0.3	No	No
18	Baseline Av.	w/o Alder Av.	Residential	70.0	70.1	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	70.8	71.0	0.2	No	No

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

EA Plus Cumulative (EAC) (2019) Project Traffic Noise Level Contributions

Table 4-16, *EAPC (2019) Off-Site Project-Related Traffic Noise Impacts,* presents a comparison of the EAC 2019 without and with Project conditions CNEL noise levels. As identified on Table 4-16, the proposed Project would generate less than significant noise level increases of up to 1.6 dBA CNEL on the study area roadway segments. Based on the significance criteria for noise-sensitive and non-noise-sensitive land uses, the Project-related increases represent a less than significant impact under EAC 2019 conditions. (Urban Crossroads, Inc., 2016c, p. 48)

Table 4-16 EAPC (2019) Off-Site Project-Related Traffic Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	73.1	0.0	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.8	71.9	0.1	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	63.6	1.6	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	72.1	72.2	0.1	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	73.1	73.3	0.2	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	74.2	74.5	0.3	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	74.0	74.2	0.2	No	No
8	Alder Av.	n/o Walnut Av.	Employment	73.7	73.9	0.2	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	73.4	73.6	0.2	No	No
10	Alder Av.	n/o Baseline Av.	Employment	72.1	72.4	0.3	No	No
11	Alder Av.	s/o Baseline Av.	Residential	68.3	68.4	0.1	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.9	76.9	0.0	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.7	76.7	0.0	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.9	67.3	0.4	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	66.8	67.3	0.5	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	66.2	67.3	1.1	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	66.9	67.1	0.2	No	No
18	Baseline Av.	w/o Alder Av.	Residential	70.3	70.4	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	71.5	71.6	0.1	No	No

[1] Source: City of San Bernardino General Plan Land Use Element, Figure LU-2.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Significance Criteria (Section 4).
(Urban Crossroads, Inc., 2016c, Table 7-9)

On-site Interior Noise Analysis

The proposed Project includes a hotel that would operate 24 hours per day, which would expose hotel rooms to transportation-related noise during Project operation. To ensure that the interior noise levels comply with the City of Rialto 45 dBA CNEL interior noise standards, the Noise Impact Analysis (Appendix C) included a calculation of interior noise levels at the hotel building facades. (Urban Crossroads, Inc., 2016c, p. 54)

To provide the necessary interior noise level reduction for the noise-sensitive hotel rooms within the Project site the hotel building would require a means of mechanical ventilation (e.g. air conditioning). The future unmitigated noise levels at building façade are expected to range from 74.2 dBA CNEL at the first floor to 74.1 dBA CNEL at the second through fourth floor building façades. In order to meet the City of Rialtos 45 dBA CNEL interior noise level standards, upgraded windows with a minimum STC rating of 40 would be required to be installed within all hotel rooms. The interior noise analysis shows that with the incorporation of these measures, the Project would satisfy the City of Rialto 45 dBA CNEL interior noise

level standards and the potential for on-site interior noise impacts would be less than significant. (Urban Crossroads, Inc., 2016c, p. 54)

C. Comparison to RSP Final EIR

Table 4-17, *Significance Findings and the RSP Final EIR*, summarizes the comparison between the findings identified in the *RSP Final EIR* and those that were identified for the proposed Project.

The results of the construction noise and vibration analysis for the proposed Project show that the unmitigated noise and vibration levels from Project construction are considered to be less than significant. However, the *RSP Final EIR* determined that construction noise impacts associated with the implementation of the *RSP* would be potentially significant, and identified mitigation. Because the unmitigated Project-related construction noise levels would be less than significant, the *RSP Final EIR* mitigation measures that apply to construction noise are not required to be applied to the proposed Project. Regardless, out of an abundance of caution, the City will require the Project to comply with *RSP Final EIR* MM N-1 through N-4.

The results of the Project's off-site traffic noise analysis indicate that the long-term noise impacts due to the proposed Project would be less than significant under all traffic scenarios. The *RSP Final EIR* identifies a significant and unavoidable impact for off-site traffic noise due to the RSP project. Based on the findings of the proposed Project's noise study (*Technical Appendix C*), the proposed Project would result in off-site traffic noise impacts which are less than that calculated in the *RSP Final EIR.* (Urban Crossroads, Inc., 2016c, p. 69)

Using reference noise levels to represent the expected noise sources from the Project site, the Project's noise impact analysis (*Technical Appendix C)* calculates the Project-related stationary-source noise levels at nearby sensitive receiver locations. The analysis demonstrates that the Project would not contribute a significant operational noise level impact to the existing ambient noise environment at any of the sensitive receiver locations. Therefore, the operational noise level impacts associated with the proposed 24-hour seven days per week Project activities would be less than significant. (Urban Crossroads, Inc., 2016c, p. 2).

The on-site traffic noise analysis indicates that the proposed Project would result in potentially significant impacts associated with the on-site hotel use, which would be consistent with the findings of the *RSP Final EIR*. Mitigation Measure (MM) N-06 identified in the *RSP Final EIR* requires a noise impact analysis for proposed commercial retail uses located adjacent to Alder Avenue, Baseline Road, or SR-210. The noise study that was prepared in accordance with MM N-06 identified site-specific mitigation to reduce the potential for on-site transportation noise levels to less than significant.

Table 4-17 Significance Findings and the RSP Final EIR

Analysis	Report Section	Significance Findings of Project		Significance Findings of Renaissance SP EIR[1]	
		Unmitigated	Mitigated	Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Less Than Significant*	*n/a*	*Potentially Significant*	*Significant & Unavoidable*
On-Site Traffic Noise	8	*Potentially Significant*	*Less Than Significant*	*Potentially Significant*	*Less Than Significant*
Construction Noise	10	*Less Than Significant*	*n/a*	*Potentially Significant*	*Less Than Significant*
Construction Vibration		*Less Than Significant*	*n/a*	*Potentially Significant*	*Less Than Significant*

1 Source: City of Rialto Renaissance Specific Plan (SP) Environmental Impact Report (EIR), October 2010. "n/a" = No mitigation required since the impact will be less than significant.
2 Report Section: references the section of the Noise Impact Analysis (Appendix C) where this analysis is discussed in detail.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts as less than significant and no mitigation was required. (Urban Crossroads, Inc., 2016c, Table 1-1)

No Substantial Change from Previous Analysis: The closest airport which would require additional noise analysis under Thresholds (e) and (f) is the Rialto Municipal Airport (RMA); however, RMA airport operations were permanently ceased by the time of preparation of the proposed Project's noise study therefore, the potential impacts under Thresholds (e) and (f) are considered less than significant and were not required to be analyzed in the proposed Project's noise study (*Technical Appendix C*). (Urban Crossroads, Inc., 2016c, p. 25)

Mitigation: Project-related construction noise levels would be less than significant; therefore, the *RSP Final EIR* mitigation measures related to the mitigation of potentially significant construction noise impacts are not required. Regardless, out of an abundance of caution, the City will apply MM N-1 through N-3 through conditions of approval, as indicted below. In addition, MM N-5 will be supplemented by conditions of approval to address Project-related stationary noise sources. The proposed Project has complied with MM N-5, N-6, and N-7 by its preparation of a noise study (*Technical Appendix C*), which found impacts to be less than significant.

N-1 Construction activities shall be limited to the City's allowable hours of construction activities shown in Table 4.11-2 in accordance with the City's Noise Ordinance.

In compliance with MM N-1, the City will apply the following conditions on the Project:

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays. The Project construction supervisor shall ensure compliance with the permitted construction hours.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

N-2 All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

In compliance with MM N-2, the City will apply the following conditions on the Project:

- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

N-3 Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from any nearby noise sensitive uses, unless safety or technical factors take precedence.

In compliance with MM N-3, the City will apply the following conditions on the Project:

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.

N-5 The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed noise sensitive land uses. Each noise impact analysis shall

identify potential construction noise impacts and provide mitigation, if necessary to reduce the construction noise impacts to within the City noise level standards of the Noise Element of the Rialto General Plan.

In compliance with MM N-5, a noise study was prepared for the Project by Urban Crossroads, Inc. Construction-related noise impacts were found to be less than significant.

To mitigate the long term/operational related noise impacts for the year 2011 to build-out conditions, the following measures shall be implemented:

N-6 The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and any proposed commercial retail or business uses located adjacent to Alder Avenue, Baseline Road, SR-210, or adjacent to other sensitive on-site or off-site uses. Each noise impact analysis shall identify potential direct, project- related, transportation noise impacts and provide mitigation, if necessary, to reduce the traffic noise impacts as well as other onsite stationary noise impacts to within the City noise level standards of the Land Use Element of the Rialto General Plan.

In compliance with MM N-6, a noise study was prepared for the Project by Urban Crossroads, Inc. Traffic-related and stationary noise impacts were found to be less than significant.

To mitigate the short term/construction vibration-related impacts, the following measure shall be implemented:

N-7 The City shall require that a vibration impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed vibration sensitive land uses. Each vibration impact analysis shall identify potential construction-related vibration impacts and provide mitigation, if necessary, to reduce the construction to within the County vibration level standards.

In compliance with MM N-07, a noise study was prepared for the Project by Urban Crossroads, Inc. Construction-related vibration impacts were found to be less than significant.

To mitigate the long term/operational related vibration-related impacts for the year 2011 to build-out conditions, the following measure shall be implemented:

N-8 The City shall require that a vibration impact analysis be prepared for any commercial or business developments located adjacent to existing or proposed vibration sensitive land uses. Each vibration impact analysis shall identify potential sources of vibration impacts and provide mitigation, if necessary, to reduce the vibration impacts to within the County standards.

In compliance with MM N-08, a noise study was prepared for the Project by Urban Crossroads, Inc. Construction-related vibration impacts were found to be less than significant.

To mitigate the potential on-site impacts to hotel rooms during operation, the following mitigation measure shall be implemented:

N-9 Prior to the issuance of building permits for the hotel, the City Building Official or their designee shall ensure that building plans include design elements that result in a Noise Reduction (NR) of up to 29.2 dBA and a means of mechanical ventilation (e.g. air conditioning). These elements shall include, at a minimum, the following components:

- All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum sound transmission class (STC) rating of 40.
- Any window-mounted air conditioning units used in guest rooms of the hotel building must have a minimum STC rating of 27, however, it is recommended that a minimum STC rating of 30 be used. Alternatively, through-the-wall or Packaged Terminal Air Conditioners (PTAC) may be used with a minimum STC rating of 27.
- All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27.
- Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well-sealed, gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g. air conditioning) shall be provided which satisfies the requirements of the Uniform Building Code.

4.12 POPULATION AND HOUSING

Would the Project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts to population and housing as less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). As a mixed-use community, the *RSP Final EIR* determined that proposed residential uses would be located near commercial and business centers with employment opportunities, as well as schools, parks, and shopping areas, such that the uses would complement each other and not induce substantial growth that would have indirect environmental effects. Also, the *RSP Final EIR* disclosed that implementation of the RSP would not displace a substantial amount of existing housing or people.

No Substantial Change from Previous Analysis: The Project proposes the construction and operation of one hotel, one full-service restaurant, two quick-serve (drive-thru) restaurants, a gas station with a car wash on the Project site and does not propose any housing. The *RSP Final EIR* evaluated the Project site with a Freeway Commercial (FC) use and the land use type is an employment generators and would not substantially change the jobs to housing ratio within the RSP area. The proposed Project is an employment-generating use and not a population-generating use. Under existing conditions, the Project site is vacant and undeveloped and does not contain existing housing. The Project site is served by existing public roadways and utility infrastructure is already installed beneath public rights of way that abut the property. As such, implementation of the proposed Project would not induce substantial growth in the area either directly or indirectly. Consistent with the *RSP Final EIR f*inding, impacts would be less than significant and no mitigation is required.

Because the Project site is vacant and undeveloped and does not contain any residential structures under existing conditions, implementation of the proposed Project would not displace substantial numbers of existing housing or numbers of people, necessitating the construction of replacement housing elsewhere. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of population and housing.

4.13 PUBLIC SERVICES

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, and other public facilities?

RSP Final EIR Finding: The *RSP Final EIR* considered impacts as less than significant and no mitigation was required. Development within the RSP project area would increase the demand for public services in the RSP area. All development within the RSP project area would have to pay appropriate school impact fees to the appropriate school district, and development impact fees to both the fire and police departments. The RSP project would pay its fair share of annual recurring costs to the City via various existing tax and revenue mechanisms. Therefore, the impact from the RSP project on public services was determined to be less than significant. The payment of required development fees for schools, police protection and other services was concluded to offset the incremental impacts of the RSP project on demand for these public services. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, pp. 4.13-7 and 4.13-8)

No Substantial Change from Previous Analysis: The Project Applicant would be required to pay the development fees for schools, police protection, and other services. Consistent with the *RSP Final EIR*, the payment of required development fees for schools, police protection and other services will offset the incremental impacts of the RSP project on demand for these public services. The Project would not result in the need to construct new or physically altered government facilities; thus, no impact on the physical environment would occur. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of public services.

4.14 RECREATION

Would the Project:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

RSP Final EIR Finding: The *RSP Final EIR* determined that no mitigation was required because project design and compliance with existing City requirements including the dedication of land and/or in-lieu park fees, would make recreational impacts less than significant (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.14-8).

No Substantial Change from Previous Analysis: The Project proposes the construction and operation of one hotel, one full-service restaurant, two quick-serve (drive-thru) restaurants, a gas station with a car wash on the Project site with a Freeway Commercial (FC) land use designation. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the Project site's vicinity. Accordingly, implementation of the Project would not result in the increased use or substantial physical deterioration of an existing neighborhood, regional park, or other recreational facility. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

The Project does not propose to construct any new on- or off-site recreation facilities nor does the Project propose to expand any existing off-site recreational facilities. Therefore, implementation of the proposed Project has no potential to result in adverse environmental physical effects related to the recreational facilities or the construction or expansion of recreational facilities. Consistent with the *RSP Final EIR* finding, impacts would be less than significant and no mitigation is required.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of recreation.

4.15 TRANSPORTATION

Would the Project:

a) ***Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?***

RSP Final EIR Finding: The *RSP Final EIR* determined that development associated with the RSP would result in a significant and substantial increase in the existing traffic load and capacity of the roadway system. Level of service (LOS) would be exceeded at certain intersections and there would be a substantial change in traffic patterns. Therefore, the *RSP Final EIR* determined that impacts due to increased traffic would be potentially significant without implementation of mitigation measures. (City of Rialto, 2010a, p. 4.15-84) With the implementation of MM T-1, in conjunction with the payment of traffic fees that have been established by the City of Rialto on a City-wide basis, the *RSP Final EIR* determined that minimum LOS standards would be maintained at the study area intersections where significant RSP project impacts were identified. Therefore, the impact due to the increased traffic at area intersections was determined to be less than significant after implementation of MM T-1. (City of Rialto, 2010a, p. 4.15-101)

Impacts associated with adding traffic to freeway segments was determined to be significant and unavoidable (City of Rialto, 2010c, Table 1-1).

No Substantial Change from Previous Analysis: Urban Crossroads, Inc. prepared a Traffic Impact Analysis (TIA), dated March 15, 2016 included as *Technical Appendix D1* and a Supplemental Assessment dated September 13, 2016 included as *Technical Appendix D2* to this EIR Addendum (Urban Crossroads, 2016d) (Urban Crossroads, Inc., 2016e). As directed by City of Rialto staff, the Project's (TIA) was prepared in accordance with the City of Rialto Traffic Study Guidelines (December 2013) and also where appropriate (for analysis related to Threshold (b) below), addresses requirements as identified by the San Bernardino County Congestion Management Program (CMP) *Guidelines for CMP Traffic Impact Analysis Reports* (Appendix C, 2005 Update), the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002), and consultation with City staff during the scoping process. The approved Project Traffic Scoping Agreement is provided in Appendix 1.1 of the TIA (*Appendix D1*) (Urban Crossroads, 2016d, p. 1) The purpose of the Supplemental Assessment (*Technical Appendix D2*) was to compare the potential impacts and recommended improvements identified in the Project's TIA to the analysis results from the *RSP Final EIR* (Urban Crossroads, Inc., 2016e, p. 1).

Analysis:

For purposes of analysis the Project's TIA assumed the following driveways would provide access to the Project site. The Project is proposed to have access on Renaissance Parkway. Driveway 1 is proposed to allow for full-access. Driveway 2 is proposed for right-in/right-out (RIRO) access only. Regional access to the Project site will be provided by the SR-210 Freeway via Alder Avenue.

A. Intersections

The proposed Project's ten study area intersections listed in Table 4-18*, Intersection Analysis Locations* and depicted in Figure 4-1, *Location Map*, were selected for the Project's TIA based on consultation with City of Rialto staff. In general, the study area includes intersections where the proposed Project is anticipated to contribute 50 or more peak hour trips. The "50 peak hour trip" criterion utilized by the City of Rialto is consistent with the methodology employed by the County of San Bernardino, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal. (Urban Crossroads, 2016d, p. 5)

Table 4-18 Intersection Analysis Locations

ID	Intersection Location	Jurisdiction	CMP?
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	City of Fontana	No
2	Palmetto Av. / Renaissance Pkwy.	City of Rialto, City of Fontana	No
3	Driveway 1 / Renaissance Pkwy. – Future	City of Rialto	No
4	Driveway 2 / Renaissance Pkwy. – Future	City of Rialto	No
5	Alder Av. / SR-210 Westbound Ramps	Caltrans	Yes
6	Alder Av. / SR-210 Eastbound Ramps	Caltrans	Yes
7	Alder Av. / Renaissance Pkwy.	City of Rialto	No
8	Alder Av. / Walnut Av.	City of Rialto	No
9	Alder Av. / Miro Wy.	City of Rialto	No
10	Alder Av. / Baseline Av.	City of Rialto, City of Fontana	No

(Urban Crossroads, 2016d, Table 1-1)

Figure 4-1 Location Map

(Urban Crossroads, 2016d, Exhibit 2-1)

B. Roadway Segments

The roadway segment study area utilized in the Project's TIA is based on consultation with City staff as identified in Table 4-19, *Roadway Segment Analysis Locations*. The study area identifies a total of three existing roadway segments. (Urban Crossroads, 2016d, Table 1-2 and p. 6)

Table 4-19 Roadway Segment Analysis Locations

ID	Roadway Segment Location	Jurisdiction
1	Renaissance Pkwy. – West of Alder Av.	City of Rialto
2	Alder Av. – North of Renaissance Pkwy.	City of Rialto
3	Alder Av. – South of Renaissance Pkwy.	City of Rialto

(Urban Crossroads, 2016d, Table 1-2)

C. Project Trip Generation

Trips generated by the proposed Project's land uses were calculated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition, 2012*. The proposed Project is calculated to generate a net total of 5,262 passenger car equivalent (PCE) trip-ends per day on a typical weekday with approximately 173 PCE AM peak hour trips and 184 PCE PM peak hour trips. (Urban Crossroads, 2016d, p. 1)

D. Analysis Scenarios

For the purposes of the Project's TIA, Urban Crossroads, Inc. assessed potential impact to traffic and circulation for the following conditions:

- Existing (2015) Conditions
- Existing Plus Project (E+P)
- Existing Plus Ambient Growth Plus Project (EAP 2019)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (EAPC) (2019)
  (Urban Crossroads, 2016d, p. 3)

A. Existing Circulation Network

The Project's study area includes a total of ten existing and future intersections as previously shown on Figure 4-1, where the proposed Project is calculated to contribute 50 or more peak hour trips. Figure 4-2, *Existing Number of Through Lanes and Intersection Controls*, depicts the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

B. Existing (2015) Conditions

The intersection LOS is based on the traffic volumes observed by Urban Crossroads during the peak hour conditions using traffic count data collected in October 2015. The following peak hours were selected for analysis in the TIA. (Urban Crossroads, 2016d, p. 40)

- Weekday AM Peak hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 and 6:00 PM)

The weekday AM and weekday PM peak hour count data is representative of typical peak hour traffic conditions in the Project study area. Urban Crossroads did not observe any conditions in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools in session and operating on normal schedules. (Urban Crossroads, 2016d, p. 40)

Existing (2015) Conditions Intersection Operations Analysis

The intersection operations analysis results are summarized in Table 3-1 of the Project's TIA, which indicates that there are no existing study area intersections that are currently operating at an unacceptable LOS during the peak hours. (Urban Crossroads, Inc., 2016e, Table 3-1 and p. 47)

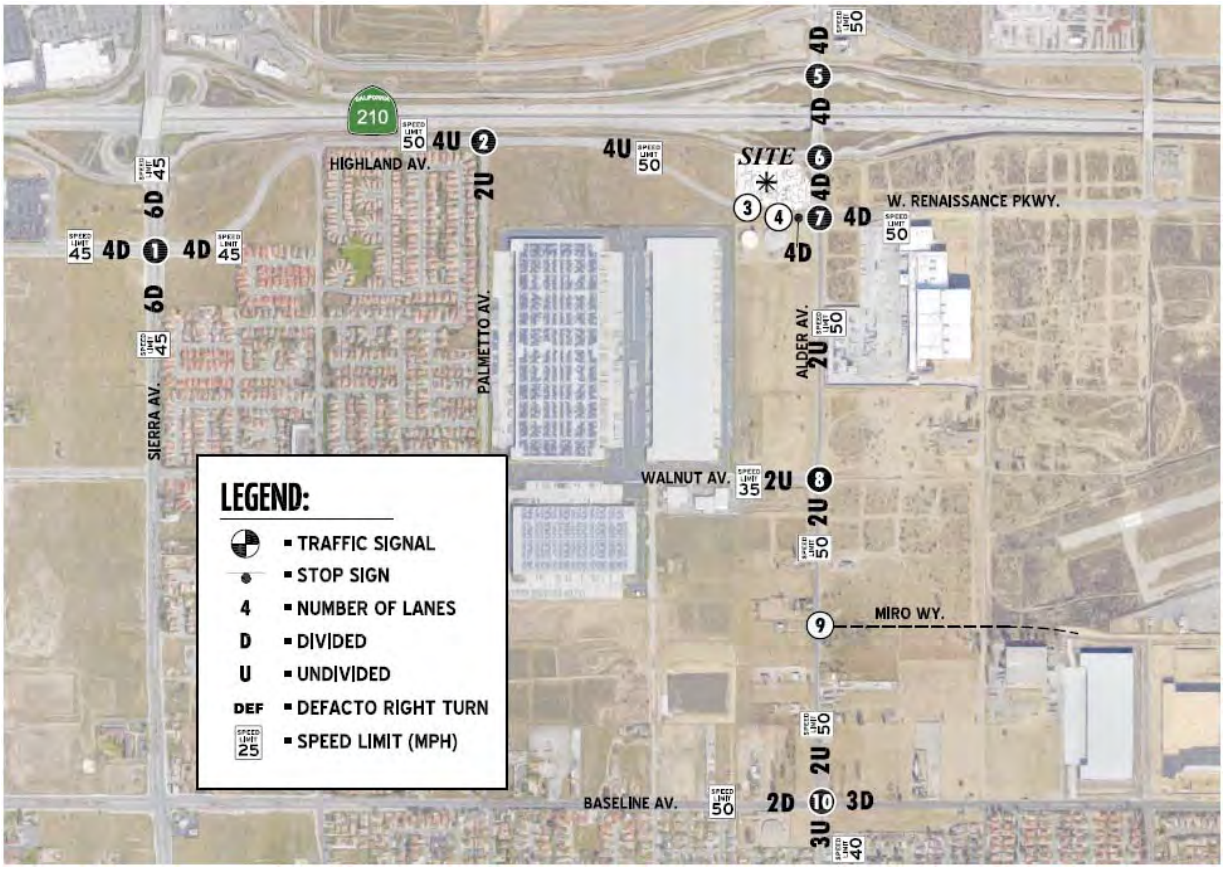
Existing (2015) Conditions Roadway Segment Analysis

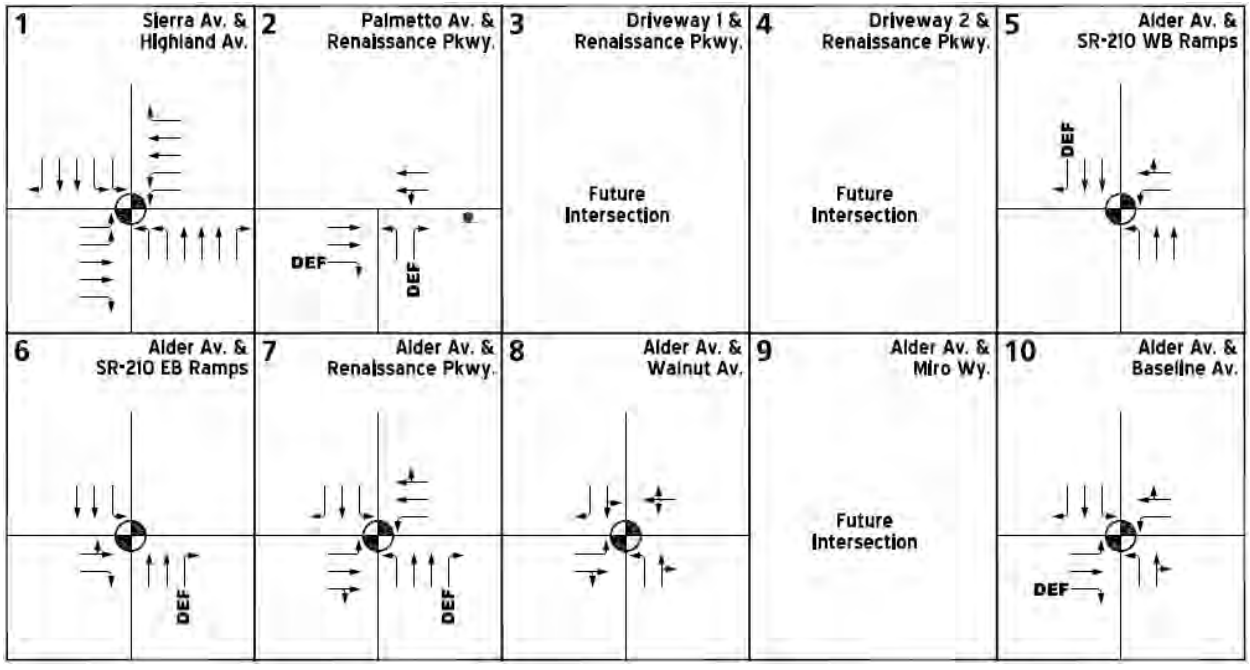
The study area roadway segments are currently operating at an unacceptable LOS based on the applicable planning level roadway capacity thresholds (Urban Crossroads, 2016d, table 3-2 and p. 47).

Existing (2015) Conditions Traffic Signal Warrants Analysis

Traffic signal warrants for Existing traffic conditions are based on existing peak hour turning volumes. There are no intersections that currently warrant a traffic signal for Existing traffic conditions. (Urban Crossroads, 2016d, p. 52)

Figure 4-2 Existing Number of Through Lanes and Intersection Controls





(Urban Crossroads, Inc., 2016e, Exhibit 3-1)

C. E+P Conditions

The Existing Plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the proposed Project being placed on Existing conditions. The E+P analysis is intended to identify the Project-specific traffic impacts associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing (2015) conditions.

E+P Roadway Improvements

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those previously identified in Figure 4-2, with the exception of the Project driveways and those facilities assumed to be in place or constructed by the proposed Project to provide site access also are assumed to be in place for E+P conditions. (Urban Crossroads, 2016d, p. 69)

E+P Traffic Volume Forecasts

The E+P scenario includes Existing traffic volumes plus Project traffic (Urban Crossroads, 2016d, p. 69).

E+P Intersection Operations Analysis

There are no study area intersections that are calculated to operate an unacceptable LOS for E+P conditions. (Urban Crossroads, 2016d, Table 5-1 and Exhibit 5-2).

E+P Roadway Segment Analysis

Consistent with Existing (2015) traffic conditions, the addition of Project traffic is not calculated to result in any roadway segment deficiencies for E+P traffic conditions (Urban Crossroads, 2016d, Table 5-2 and p. 69).

E+P Traffic Signal Warrants Analysis

There are no traffic signals calculated to meet either peak hour volume based on traffic signal warrants with the addition of Project traffic for E+P traffic conditions (Urban Crossroads, 2016d, p. 74).

D. EAP (2019) Conditions

EAPC (2019) Roadway Improvements

The lane configurations and traffic controls assumed to be in place for EAP (2019) conditions are consistent with those previously identified in Figure 4-2, with the exception of the Project driveways and those facilities assumed to be in place to or constructed by the proposed Project to provide site access also are assumed to be in place for EAP (2019) conditions. (Urban Crossroads, 2016d, p. 81)

EAP (2019) Traffic Volume Forecasts

The EAPC (2019) scenario includes Existing traffic volumes, plus an ambient growth factor of 8.24% and the addition of Project traffic (Urban Crossroads, 2016d, p. 81).

EAP (2019) Intersection Operations Analysis

All study area intersections are calculated to continue to operate at acceptable levels of services under EAP (2019) conditions (Urban Crossroads, 2016d, p. 81).

EAP (2019) Roadway Segment Analysis

There are no anticipated roadway segment capacity deficiencies for EAP (2019) traffic conditions. (Urban Crossroads, 2016d, p. 81)

EAP (2019) Traffic Signal Warrants Analysis

There are no traffic signals anticipated to meet traffic signal warrants for EAP traffic conditions (Urban Crossroads, 2016d, p. 86)

E. EAPC (2019) Traffic Conditions

EAPC (2019) Roadway Improvements

The lane configurations and traffic controls assumed to be in place for EAPC (2019) conditions are consistent with those previously identified in Figure 4-2, with the exception of the following:

- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC (2019) (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

- Project driveways and those facilities assumed to be in place prior to or constructed by the Project to provide access are also assumed to be in place for EAPC (2019) conditions. (Urban Crossroads, 2016d, p. 93)

EAPC (2019) Traffic Volume Forecasts

The EAPC (2019) scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% in conjunction with the addition of cumulative project development and the addition of Project traffic (Urban Crossroads, 2016d, p. 93) .

EAPC (2019) Intersection Operations Analysis

The following intersections are calculated to operate at an unacceptable LOS (LOS E or worse) under EAPC (2019) conditions.

- Alder Avenue/ Renaissance Parkway (#7) – LOS F AM peak hour only
- Alder Avenue/ Walnut Avenue (#8) – LOS F AM and PM peak hours
- Alder Avenue/ Miro Way (#9) - LOS E AM and PM peak hours
- Alder Avenue/ Baseline Avenue (#10) - LOS D AM and PM peak hours
  (Urban Crossroads, 2016d, p. 93)

EAPC (2019) Roadway Segment Analysis

The following roadway segment is calculated to operate at an unacceptable LOS (i.e., LOS E or worse) for EAPC (2019) traffic conditions.

- Alder Avenue - North of W. Renaissance Parkway (#2) (Urban Crossroads, 2016d, p. 97)

EAPC (2019) Traffic Signal Warrants Analysis

No additional study area intersections are anticipated to meet traffic signal warrants for EAPC (2019) traffic conditions. (Urban Crossroads, 2016d, p. 97)

As identified on Table 4-20, *Intersection LOS for RSP Final EIR EAPC (2020) vs. Proposed Project EAPC (2019) Conditions*, the intersections of Alder Avenue at Renaissance Parkway and Alder Avenue at Baseline Avenue were found to operate at an unacceptable LOS for EAPC conditions in both the *RSP Final EIR* and the Project's TIA without mitigation. Alder Avenue at Walnut Avenue and Alder Avenue at Miro Way were found to operate at an unacceptable LOS for EAPC conditions in the Project's TIA; however, the I-210 Freeway Ramps on Alder Avenue were found to operate at an acceptable LOS. In comparison, the I-210 Freeway Ramps were found to operate at an unacceptable LOS for EAPC conditions in the *RSP Final EIR*; however, Alder Avenue at Walnut Avenue and Alder Avenue at Miro Way were found to operate at an acceptable LOS for EAPC conditions in the *RSP Final EIR*. All of the study area freeway segments were found to operate at an unacceptable LOS for EAPC conditions in the *RSP Final EIR*, consistent with the Project's TIA with the exception of the westbound segment, east of Alder Avenue, which was found to operate at an acceptable LOS in the Project's TIA. (Urban Crossroads, Inc., 2016e, Table 4 and pg. 4).

The findings of the TIA indicating that the proposed Project would result in potentially significant impacts to intersection LOS in the study area are consistent with the findings in the *RSP Final EIR* which identified that operational impacts to intersections associated with the implementation of the *RSP* would result in significant impacts. With the incorporation of the roadway improvements identified below, impacts to level of service at study area intersections would be less than significant. This finding is consistent with the finding made in the RSP EIR.

Table 4-20 Intersection LOS for RSP Final EIR EAPC (2020) vs. Proposed Project EAPC (2019) Conditions

#	Intersection	Traffic Control[1]	EAPC (2020) - SP				EAPC (2019) - TIA			
			V/C		LOS[2]		Delay (secs.)		LOS[2]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy	TS	0.62	0.56	C	C	53.7	32.1	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	--	--	C	C	23.1	15.6	C	C
3	Driveway 1 / Renaissance Pkwy.	TS	Not Applicable				24.2	17.5	C	B
4	Driveway 2 / Renaissance Pkwy.	CSS	Not Applicable				8.8	8.8	A	A
5	Alder Av. / I-210 Westbound Ramps	TS	**1.14**	**1.34**	F	F	48.3	52.1	D	D
6	Alder Av. / I-210 Eastbound Ramps	TS	**1.04**	**1.20**	F	F	24.7	29.4	C	C
7	Alder Av. / Renaissance Pkwy.	TS	**1.11**	**1.45**	F	F	**113.3**	**37.1**	F	D
8	Alder Av. / Walnut Av.	TS	0.61	0.84	C	D	**143.4**	**>200.0**	F	F
9	Alder Av. / Miro Wy.	CSS	0.68	0.74	B	C	**44.1**	**44.8**	E	E
10	Alder Av. / Baseline Av.	TS	**1.32**	**1.39**	F	F	**67.4**	**65.9**	E	E

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
[1] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement
[2] LOS = Level of Service
(Urban Crossroads, Inc., 2016e, Table 3)

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

RSP Final EIR Finding: Although the RSP project would provide its fair share for regional improvements through the City of Rialto's regional traffic mitigation fee, provision of needed mainline freeway improvements in time to accommodate RSP project traffic cannot be guaranteed. Therefore, in the interest of caution, the *RSP Final EIR* determined impacts to the identified freeway segments as significant, adverse, and unavoidable. (Urban Crossroads, 2016d, pp. 4.15-101 thorugh 4.15-102)

No Substantial Change from Previous Analysis: As shown on Table 5 of the Project's Supplemental TIA (Appendix D2), a comparison of the improvements recommended in the RSP Final EIR and the Project's Supplemental TIA show that the improvements are generally consistent, with the exception of the following intersections and identified improvements:

- **Alder Avenue / I-210 Westbound Ramps** – Both the TIA and *RSP Final EIR* recommend restriping to provide a 2nd northbound left turn lane, southbound right turn lane, and 2nd westbound left turn lane.
- **Alder Avenue / I-210 Eastbound Ramps** – Both the TIA and *RSP Final EIR* recommend restriping to provide a northbound right turn lane and 2nd eastbound right turn lane. The TIA additionally recommends restriping to provide a 2nd southbound left turn lane and 2nd eastbound left turn lane.
- **Alder Avenue / Renaissance Parkway** – Both the TIA and *RSP Final EIR* recommend restriping to provide a southbound shared through-right turn lane. The *RSP Final EIR* additionally recommends converting the westbound right turn lane into a free right turn lane.
- **Alder Avenue / Walnut Avenue** – The TIA recommends restriping the southbound approach to provide for a left turn lane and a shared through-right turn lane; however, the *RSP Final EIR* does not recommend any improvements. As noted in Table 6 of the TIA, although not recommended in the *RSP*

EIR, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.

- **Alder Avenue / Miro Way** – The TIA recommends installing a traffic signal and adding a southbound left turn lane; however, the *RSP Final EIR* does not recommend any improvements. As noted in Table 6, although not recommended in the *RSP Final EIR*, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.
- **Alder Avenue / Baseline Avenue** – Both the TIA and *RSP Final EIR* recommend adding a westbound through lane; however, the *RSP Final EIR* additionally recommends adding a northbound through lane and southbound through lane.

A. Freeway Mainline Segments

Consistent with Caltrans guidance and because impacts tend to dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry typically is not required. As such, as identified in Table 4-21, *Freeway Mainline Segment Analysis,* the Project's TIA evaluates the freeway segments adjacent to the point of entry to the SHS, where the proposed Project would to contribute 50 or more peak hour trips. (Urban Crossroads, 2016d, Table 1-3 and p. 6)

Table 4-21 Freeway Mainline Segment Analysis

ID	Freeway Mainline Segments
1	SR-210 Freeway – Westbound, West of Alder Av.
2	SR-210 Freeway – Westbound, East of Alder Av.
3	SR-210 Freeway – Eastbound, West of Alder Av.
4	SR-210 Freeway – Eastbound, East of Alder Av.

(Urban Crossroads, 2016d, Table 1-3)

B. Freeway Merge / Diverge Ramp Junctions

The study area freeway merge/diverge ramp junction analysis locations include the freeway ramp junctions for each direction of flow as identified in Table 4-22, *Freeway Merge / Diverge Ramp Junction Analysis Locations*, where the proposed Project is calculated to contribute 50 or more peak hour trips. (Urban Crossroads, 2016d, Table 1-4 and p. 7)

Table 4-22 Freeway Merge / Diverge Ramp Junction Analysis Locations

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-210 Freeway – Westbound, On-Ramp at Alder Av. (Merge)
2	SR-210 Freeway – Westbound, Off-Ramp at Alder Av. (Diverge)
3	SR-210 Freeway – Eastbound, On-Ramp at Alder Av. (Merge)
4	SR-210 Freeway – Eastbound, Off-Ramp at Alder Av. (Diverge)

(Urban Crossroads, 2016d, Table 1-4)

C. Existing (2015) Conditions

Existing (2015) Conditions - Off-Ramp Queueing Analysis

Urban Crossroads performed a queuing analysis for the off-ramps at the I-210 Freeway at the Alder Avenue interchange to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially " spill back" onto the I-210 Freeway. There were no movements that were currently experiencing queuing issues during the weekday AM or the weekday PM peak 95th percentile traffic flows. (Urban Crossroads, 2016d, p. 52)

Existing (2015) Conditions – Basic Freeway Segment Analysis

The existing I-210 Freeway segments and ramp junctions analyzed for the Project's TIA are calculated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing (2015) traffic conditions. (Urban Crossroads, 2016d, p. 52).

Existing (2015) Conditions - Freeway Merge / Diverge Analysis

The existing freeway ramp merge and diverge areas currently operate at LOS D or better.
(Urban Crossroads, 2016d, p. 57)

D. E+P Conditions

E+P Conditions –Off-Ramp Queueing Analysis

Consistent with Existing (2015) traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P traffic conditions. (Urban Crossroads, 2016d, p. 74).

E+P Conditions – Basic Freeway Segment Analysis

The addition of Project traffic is calculated not to result in any freeway segment LOS deficiencies. (Urban Crossroads, 2016d, p. 74)

E+P Conditions - Freeway Merge / Diverge Analysis

The addition of Project traffic is calculated not to result in any freeway ramp merge and diverge junction LOS deficiencies. (Urban Crossroads, 2016d, p. 74)

E. EAP (2019) Conditions

E+P (2019) Conditions –Off-Ramp Queuing Analysis

There are no off-ramp queuing deficiencies calculated at Alder Avenue and the I-210 Freeway under EAP (2019) traffic conditions. (Urban Crossroads, 2016d, p. 86).

E+P (2019) Conditions – Basis Freeway Segment Analysis

The I-210 Freeway segments and ramp junctions analyzed in the Project's TIA are calculated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for EAP (2019) traffic conditions. (Urban Crossroads, 2016d, p. 86).

E+P (2019) Conditions – Freeway Merge/ Diverge Analysis

All of the I-210 ramp merge and diverge areas analyzed for the Project's TIA area calculated to operate at acceptable LOS (i.e., LOS D or better). (Urban Crossroads, 2016d, p. 86)

F. EAPC (2019) Conditions

EAPC (2019) Conditions –Off-Ramp Queueing Analysis

The following off-ramp is calculated to experience 95th percentile queues that exceed the available storage under EAPC (2019) traffic conditions.

- Alder Avenue / I-210 Westbound Off-Ramp, Westbound Right Turn Lane – AM peak hour only.
- Alder Avenue / I-210 Eastbound Off-Ramp, Eastbound Right Turn Lane – AM and PM peak hours. (Urban Crossroads, 2016d, p. 100)

EAPC (2019) Conditions– Basic Freeway Analysis

The I-210 Freeway segments analyzed for the Project's TIA are calculated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for EAPC (2019) conditions, with the exception of the following segments.

- I-210 Freeway Westbound, West of Alder Avenue (#1) - LOS E PM peak hour only.
- I-210 Freeway Eastbound, West of Alder Avenue (#3) - LOS E AM and PM peak hours.
- I-210 Freeway Eastbound, East of Alder Avenue (#4) - LOS E PM peak hour only.
  (Urban Crossroads, 2016d, p. 97)

EAPC (2019) Conditions – Freeway Merge / Diverge Analysis

The I-210 Freeway ramp merge and diverge areas are calculated to operate at acceptable LOS (i,.e., LOS D or better) for EAPC (2019) traffic conditions, with the exception of the following.

- I-210 Freeway Westbound, On-Ramp at Alder Avenue (#1) – LOS E PM peak hour only.
- I-210 Freeway Eastbound, Off-Ramp at Alder Avenue (#3) – LOS E AM and PM Peak hours.
- I-210 Freeway Eastbound, On-Ramp at Alder Avenue (#4) - LOS E PM peak hour only.
  (Urban Crossroads, 2016d, p. 109)

The proposed Project's 2016 TIA prepared by Urban Crossroads, Inc. evaluates a site-specific development proposal for a portion of Planning Area 11 of the RSP. As concluded by the proposed Project's TIA, the proposed Project would not directly result in a LOS failure at any RSP project intersections.

The proposed Project would generate 1,639 total passenger car equivalent (PCE) trip-ends per day whereas the *RSP Final EIR* assumed that the entirety of Planning Area 11 would generate 5,543 trip-ends per day. Thus, the proposed Project would not exceed the daily traffic as previously evaluated in the *RSP Final EIR*. Compared to the conclusions of the *RSP Final EIR,* no new traffic impacts would be created by the proposed Project and none of the significant impacts identified in the *RSP Final EIR* would be worsened by the addition of Project traffic. Consistent with the findings of the *RSP Final EIR*, the Project's traffic would contribute to cumulative impacts at four study area intersections, and mitigate for those impacts

by making fair-share monetary contributions for the improvements necessary to maintain an acceptable LOS at these locations. The project's fee payments as specified in the Project's TIA Table I-5 would be used as follows:

- **Alder Avenue / I-210 Westbound Ramps (#5)** – A portion of the improvements needed are included in the Renaissance Fee Program, to which the Project is required to contribute towards..

- **Alder Avenue / I-210 Eastbound Ramps (#6)** – Restriping to provide a 2nd northbound right turn lane and the 2nd eastbound right turn lane are included in the Renaissance Fee Program, which with the Project is required to contribute towards. Although the recommended restriping to provide a 2nd southbound left turn and a 2nd eastbound left turn lanes are not in an established fee program, the Project would contribute fair share towards implementing the improvements.

- **Alder Avenue / Renaissance Parkway (#7)** – Restriping to provide a 2nd southbound through lane is not included in the Renaissance Fee Program.

- **Alder Avenue / Walnut Avenue (#8)** – Restriping to provide a southbound left turn lane and shared through-right lane is not included in the Renaissance Fee Program.

- **Alder Avenue / Miro Way (#9)** – Installing a traffic signal and adding dual southbound left turn lanes are partially included in the Renaissance Fee Program, to which the Project is required to contribute towards. The Project would contribute fair share towards implementing the improvements.

- **Alder Avenue / Baseline Avenue (#10)** – Adding a 2nd southbound left turn lane and 2nd westbound through lane is partially included in the Renaissance Fee Program, to which the Project is required to contribute towards. The Project would contribute fair share towards implementing the improvements. (Urban Crossroads, Inc., 2016e, pp. 1-2)

As shown in Table 4-23, *Comparison of Recommended Improvements*, a comparison of the improvements recommended in the *RSP Final EIR* and the Project's Supplemental TIA show that the improvements are generally consistent with the findings in the *RSP Final EIR*. However, as a result of more detailed analysis conducted subsequent to the *RSP Final EIR*, including the Project's Supplemental TIA, the intersection improvements have been identified as follows.

- **Alder Avenue / I-210 Westbound Ramps** – Both the TIA and *RSP Final EIR* recommend restriping to provide a 2nd northbound left turn lane, southbound right turn lane, and 2nd westbound left turn lane.

- **Alder Avenue / I-210 Eastbound Ramps** – Both the TIA and *RSP Final EIR* recommend restriping to provide a northbound right turn lane and 2nd eastbound right turn lane. The TIA additionally recommends restriping to provide a 2nd southbound left turn lane and 2nd eastbound left turn lane.

- **Alder Avenue / Renaissance Parkway** – Both the TIA and *RSP Final EIR* recommend restriping to provide a southbound shared through-right turn lane. The *RSP Final EIR* additionally recommends converting the westbound right turn lane into a free right turn lane.

- **Alder Avenue / Walnut Avenue** – The TIA recommends restriping the southbound approach to provide for a left turn lane and a shared through-right turn lane; however, the *RSP Final EIR* does not recommend any improvements at all. As noted in Table 4-23, although not recommended in the *RSP EIR*, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.

- **Alder Avenue / Miro Way** – The TIA recommends installing a traffic signal and adding a southbound left turn lane; however, the *RSP Final EIR* does not recommend any improvements at all. As noted in Table 4-23, although not recommended in the *RSP Final EIR*, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.

- **Alder Avenue / Baseline Avenue** – Both the TIA and *RSP Final EIR* recommend adding a westbound through lane; however, the *RSP Final EIR* additionally recommends adding a northbound through lane and southbound through lane. (Urban Crossroads, Inc., 2016e, pp. 6-7)

Alder Avenue is designated by the City of Rialto as a Major Arterial (four-lane divided roadway) in the *RSP's* Vehicular Circulation Plan. The full improvement of Alder Avenue to its ultimate configuration is included in the City-wide Development Impact Fee (DIF) program. The proposed Project would be required to contribute DIF fees to fund improvements to Alder Avenue, which would include the improvements to the Alder Avenue/Renaissance Parkway, Alder Avenue/Walnut Avenue and Alder Avenue/Baseline Avenue intersections. Additionally, two previous projects have been conditioned to contribute to the future signalization of the Alder Avenue/Miro Way intersection. The proposed Project would also be conditioned to contribute on a fair-share basis to this improvement.

The implementation of the recommendations identified in the TIA and the *RSP Final EIR* would ensure that the Project's impacts to levels of service throughout the study area would be less than significant and would be consistent with the findings in the *RSP Final EIR*.

Table 4-23 Comparison of Recommended Improvements

#	Intersection Location	Analysis Scenarios - SP EAPC (2018)	Analysis Scenarios - TIA EAPC (2019)
5	Alder Av. / I-210 Westbound Ramps[1]	Restripe to provide 2nd NB left turn lane Restripe to provide a SB right turn lane Restripe to provide a 2nd WB left turn lane	Same Same Same
6	Alder Av. / I-210 Eastbound Ramps[1]	Restripe to provide a NB right turn lane 2nd EB right turn lane	Same Same Restripe to provide a 2nd SB left turn lane Restripe to provide a 2nd EB left turn lane
7	Alder Av. / Renaissance Pkwy.	Restripe SB right turn lane as a shared through-right turn lane Convert WB right turn lane to a free right turn lane	Same Not Recommended
8	Alder Av. / Walnut Av.	None	Restripe SB approach to provide for a left turn lane and a shared through-right turn lane[2,3]
9	Alder Av. / Miro Wy.	None	Traffic signal[3] SB left turn lane[3]
10	Alder Av. / Baseline Av.	Add a NB through lane Add a SB through lane Add a WB through lane	Not Recommended Not Recommended Same

[1] Although operating at an acceptable LOS, the City of Rialto has requested the addition of this intersection in an effort to calculate fair share contributions towards the future improvements proposed as part of the Specific Plan.

[2] Improvement can be accommodating by restriping existing pavement. Improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto.

[3] Although not recommended in the *RSP Final EIR*, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.

(Urban Crossroads, Inc., 2016e, Table 5)

Mitigation:
The R*SP Final EIR* requires the following mitigation measure:

T-1: The City shall ensure that Renaissance Specific Plan (RSP) generated traffic will not result in inadequate LOS for RSP project intersections. Prior to any discretionary approval of development pursuant to the RSP, the City Traffic Engineer shall use the TIA (LSA 2009) to evaluate which portion of the above-listed improvements are attributable to the proposed development, and appropriate based upon the progress of cumulative development. Based upon this evaluation, the proposed development shall be required, to either, a) construct the applicable improvements; or b) pay appropriate fair-share fees for the development's contribution to a cumulative impact, as determined necessary to meet acceptable levels of service pursuant to the applicable jurisdiction.

b) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

RSP Final EIR Finding: The RMA occupies the easterly 433 acres of the RSP Project area and portions of the RSP are within its Airport Influence Area of the Rialto Municipal Airport Comprehensive Land Use Plan (CLUP). The *RSP Final EIR* anticipated the closure of the RMA and noted that prior to its closure; development may occur within the RMA's Influence Area. Such development would be required to comply with the existing requirements, standards and procedures of the Airport Comprehensive Land Use Plan. The continued compliance with these requirements would ensure that no significant impacts would occur with respect to airport safety. The *RSP Final EIR* determined impacts to be less than significant and no mitigation was required (City of Rialto, 2010b, p. 4.15-84). The RMA which occupied the easterly 443 acres of the RSP project area has since closed.

No Substantial Change from Previous Analysis: The RMA which occupied the easterly 443 acres of the RSP project area has closed since the time of preparation of the *RSP Final EIR*. Therefore, the RSP is no longer within the Airport Influence Area of the RMA CLUP. Therefore, there are no air travel components in the Project's vicinity that would have the potential to be affected by implementation of the proposed Project. Therefore, the proposed Project would not include any component that would obstruct a flight pattern or change air traffic patterns. Also, the proposed Project does not contain an air travel component (e.g., runways, helipads); thus air traffic levels in the vicinity of the Project site would not be changed as a result of the proposed Project. Therefore, consistent with the *RSP Final EIR*, impacts would be less than significant.

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

RSP Final EIR Finding: The *RSP Final EIR* concluded that impacts were less than significant and no mitigation was required. The RSP project has the potential to change local traffic patterns and to increase traffic levels that could result in substantial safety risks. However, the traffic study prepared for the RSP project determined that the RSP project would not create significant impacts as long as necessary

improvements are made, including contributions to area-wide traffic improvements. Additionally, roadway and intersection designs by the RSP project would be required to meet the City of Rialto roadway design criteria requirements which would ensure that roadway hazards are not created. Therefore, roadway hazard impacts were considered less than significant. (City of Rialto, 2010a, p. 4.15-84)

No Substantial Change from Previous Analysis: All proposed improvements within the public-right-of-ways would be installed in conformance with City standards. The City of Rialto has reviewed the Project's application materials and determined that no hazardous transportation design features would be introduced by the proposed Project. Therefore, consistent with the *RSP Final EIR* finding, impacts would be less than significant.

d) Result in inadequate emergency access?

RSP Final EIR Finding: The SR-210 freeway provides regional access to the RSP project area while various roadways near the RSP project area provide local access and primarily serve the existing area. As part of development of the RSP, roadways and signals would be improved in the RSP project area and the RSP project would provide adequate emergency access in all phases of development as indicated in the conceptual circulation plan. Thus, the *RSP Final EIR* determined impacts due to emergency access as less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.15-84)

No Substantial Change from Previous Analysis: Primary access to the Project site would be from W. Renaissance Parkway. The proposed Project includes a driveway at W. Renaissance Parkway access (passenger cars and trucks) at the eastern-central entry point of the Project site, and a right-in right-out driveway at W. Renaissance Parkway at the southwestern entry point of the Project site for full access for passenger cars. During the course of the City's review of the proposed Project, the City evaluated the Project's design, including but not limited to proposed driveway locations and parking lot/drive aisle configurations, to ensure that adequate access would be provided for emergency vehicles at Project build out. Furthermore, the proposed Project would provide adequate emergency access along abutting roadways during temporary construction activities within the roadways (i.e., the installation of utility infrastructure). Therefore, consistent with the *RSP Final EIR* impacts would be less than significant.

e) Result in inadequate parking capacity?

RSP Final EIR Finding: The minimum parking ratios and spaces required for each use or equivalent use for the RSP project are identified below in Table 4-24, *Renaissance Specific Plan Parking Standards*. The parking standards and capacity for the RSP project was developed in accordance with General Plan and City of Rialto Municipal Code requirements. Per Section 18.58.020 of the Municipal Code, the RSP project as proposed meets the minimum parking requirements for the City of Rialto. Therefore, the *RSP Final EIR* determined that impacts due to parking capacity was less than significant and no mitigation was required. (City of Rialto, 2010c, Table 1-1 and Table 3-6) (City of Rialto, 2010a, pp. 4.15-84 and 4.115-85)

Table 4-24 Renaissance Specific Plan Parking Standards

Use	Standard
Neighborhood shopping center (multitenant or multi-occupant shopping center of less than 2 net acres in size)	One space per 200 square feet on the ground floor plus one space per 300 square feet on all floors above the ground floor.
Community shopping center (2 to 20 net acres in size)	One space per 250 square feet on the ground floor, plus one space per 400 square feet on all floors above the ground floor.
Regional shopping center (more than 20 net acres in size)	One space per 300 square feet on the ground floor, plus one space for 400 square feet on all floors above the ground floor.
Retail (grocery store, convenience market, etc.)	One space per 250 square feet.
Restaurant (including fast food drive-through)	One space per 100 square feet
Office/banks	One space per 250 square feet
Health club	One space per 200 square feet
Movie theater/entertainment	One space per every four seats
Light industrial/manufacturing[1]	One space per 500 square feet for up to 40,000 square feet of building space; plus either: a) one space per 750 square feet for building area beyond 40,000 square feet, or 2) one space for each employee on the maximum shift as determined by the Director of Development Services; plus one space per 250 square feet of gross floor area of office space.
Distribution/warehouse[1]	One space per 1,000 square feet for up to 40,000 square feet of building space, plus one space per 4,000 square feet for building area beyond 40,000 square feet plus one space per 250 square feet of gross floor area of office space.
Service yards, contractor storage yards, and the like	One space per 2,000 square feet of lot area.

Notes:
Unless noted, parking standards are based on gross floor area.
All uses not specifically listed or substantially equivalent to a listed use are subject to the Rialto Municipal Code, Section 18.58.050 Office, Commercial and Industrial Parking Requirements.
[1] Where multiple tenants and or uses occupy the same building, the parking shall be calculated based upon the floor area used by each tenant or use.
(City of Rialto, 2010b, Table 3-6)

No Substantial Change from Previous Analysis: As identified in Figure 2-14, *Precise Plan of Design No. 2241*, the proposed Project would provide a total of 231 parking stalls, which would exceed the City's requirement of 229 parking stalls. Therefore, consistent with the *RSP Final EIR,* the proposed Project meets the minimum parking requirements for the City of Rialto. Thus, consistent with the *RSP Final EIR*, impacts would be less than significant and no mitigation would be required.

f) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

RSP Final EIR Finding: The RSP project incorporated pedestrian, bicycle, and transit systems under its circulation element to provide opportunities for alternative forms of transportation. An extensive pedestrian system joins important community features, such as the Town Center, clubhouse, schools, and parks. The pedestrian system will promote safe non-vehicular movement throughout the RSP project area. Currently, the RSP project is served by Omnitrans bus line. As bus routes change and development occurs within the RSP project area, the accommodation of transit lines and but stops will be coordinated with Omnitrans. The RSP project supports alternative forms of transportation. Therefore, the *RSP Final EIR* determined that implementation of the RSP would not conflict with alternative transportation and impacts were considered less than significant. (City of Rialto, 2010b, Table 1-1) (City of Rialto, 2010a, p. 4.15-85)

No Substantial Change from Previous Analysis: RSP Figure 3-15, *Bicycle and Pedestrian Circulation Plan*, identifies on-street public bike lanes/sidewalks along W. Renaissance Parkway adjacent to the Project site and along Alder Avenue, east of the Project site. RSP Figure 3-15 also identifies on-street Class III public bike routes/sidewalks along Palmetto Avenue adjacent to the Project site and also south of the Project site along Walnut Street and Miro Way (City of Rialto, 2010b, Figure 3-15). The closest existing pedestrian facilities are located along Alder Avenue north of W. Renaissance Parkway (Urban Crossroads, 2016d, Exhibit 3-13).

The Project area is currently served by Omnitrans, with bus service along Sierra Avenue via Route 82. Currently there is not an existing transit line that would serve the area in the immediate vicinity of the Project site. Transit service is reviewed and updated by Omnitrans periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

4.16 TRIBAL CULTURAL RESOURCES

Would the Project:

a) Alter or destroy a historic site?

b) Restrict existing religious or sacred uses within the potential impact area?

c) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

RSP Final EIR Finding: The RSP Final EIR would have no impact on Tribal Cultural Resources. Assembly Bill (AB) 52 is triggered by a Notice of Preparation (NOP) which is not a required document for an EIR Addendum. Therefore, AB 52 requirements were not necessary for the Project.

4.16.2 Applicable Regulatory Setting

A. Senate Bill (SB) 18

California SB 18 requires that lead agencies consult with California Native American tribes during the local planning process for the purposes of protecting Traditional Tribal Cultural Places whenever a project proposes to amend or adopt any general plan or specific plan, or designate land as open space. The consultation process must be completed prior to project approval.

B. Assembly Bill (AB) 52

California AB 52 requires that lead agencies provide notice to tribes that are affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe requests consultation, then the lead agency must consult with the tribe. Th Lead Agency will notify any Native American tribes in the area who have requested notice of the proposed Project within a tribal geographical area and will undertake consultation if requested.

a) Alter or destroy a historic site?

RSP Final EIR Finding: Although the RSP EIR did not specifically address this subject, the RSP EIR disclosed all recorded historical resources in the RSP area, and identified the potential for discovery of historic and archeological resources during earth moving construction only.

No Substantial Change from Previous Analysis: No structures or historic artifacts were observed within the Project's development area. Accordingly, the Project would not impact any historic resource that are listed or eligible for listing in a register or database. The Project would not result in any impacts that were not already disclosed in the RSP EIR.

b) Restrict existing religious or sacred uses within the potential impact area?

RSP Final EIR Finding: Although the RSP EIR did not specifically address this subject, the RSP EIR did not restrict existing religious or sacred uses within the Project site.

No Substantial Change from Previous Analysis: No religious or sacred uses were identified within the Project site or development area. Accordingly, the Project would not impact any religious or sacred uses that are listed or eligible for listing in a register or database. The Project would not result in any impacts that were not already disclosed in the RSP EIR.

c) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

RSP Final EIR Finding: Although the RSP EIR did not specifically address this subject, the RSP EIR contained sufficient information related to the RSP's setting to conclude that there was the potential for tribal cultural resources to be located within the RSP Project site.

No Substantial Change from Previous Analysis: No substantial or adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074. The project would not result in any impacts that were not previously disclosed in the RSP EIR.

Mitigation: None required by the *RSP Final EIR* and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of population and housing.

4.17 UTILITIES

Would the Project:

a) Exceed wastewater treatment requirements of the applicable RWQCB?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

RSP Final EIR Finding: The RSP project would not exceed wastewater treatment requirements of the SARWQCB. Therefore, the *RSP Final EIR* considered impacts as less than significant and no mitigation was required. (City of Rialto, 2010b, Table 1-1) The *RSP Final EIR* acknowledged that the RSP project would incrementally increase the need for wastewater services in the RSP project area and its vicinity. As analyzed by the *RSP Final EIR,* the Rialto Sewer Treatment Plant was analyzed as operating at 61.4 percent of capacity, which is below the RWQCB regulation that requires an expansion if 75 percent capacity is reached. With the implementation of the RSP, the capacity will be brought to only 73 percent of capacity level; however, *RSP Final EIR* noted that the 75 percent capacity will likely be surpassed due to cumulative projects within the wastewater service area. At the time of preparation of the *RSP Final EIR*, the City of Rialto Public Works Department had discussed the plant's expansion. This expansion was anticipated to be in place by the time some of the RSP project's phases or the RSP project as a whole is completed. Also, the payment of impact and hookup fees would help mitigate wastewater impacts. Since the treatment plant's expansion was already being planned, the impacts relating to new or expanded wastewater facilities was determined to be less than significant. Furthermore, the impacts associated with adequate wastewater treatment services were considered to be less than significant. (City of Rialto, 2010a, pp 4.16-18 through 4.16-19)

No Substantial Change from Previous Analysis: Wastewater treatment, disposal, and reuse are regulated by local, State, and federal requirements primarily to protect public health, safety, and general welfare. The Project site lies within the jurisdiction of the Santa Ana RWQCB, which applies requirements to the wastewater treatment facilities owned and operated by treatment providers. The *RSP Final EIR* analyzed average wastewater rates for various types of land uses as follows: a) Residential: 0.70 gallons per capita per day; b) Commercial: 1,000 gallons per acre per day; c) Schools: 1,700 gallons per acre per day; and d) Parks: 200 gallons per acre per day. Using the most similar land use (commercial) analyzed for wastewater average rates, the *RSP Final EIR* assumed that the Project would generate approximately 5,300 gallons of wastewater per day. The proposed Project's retail uses, including the car wash, are not expected to exceed this demand or cause exceedance of the total wastewater treatment demand of the RSP at build out. Therefore, consistent with the *RSP Final EIR*, impacts would be less than significant.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

RSP Final EIR Finding: The *RSP Final EIR c*onsidered impacts as less than significant and no mitigation was required. The RSP project's drainage plan would decrease the peak stormwater flows of the RSP project area. As depicted in RSP Final EIR Exhibit 3-10, the amount of storm water runoff that would flow into the Cactus Basin complex would actually decrease with buildout of the RSP project when compared to existing conditions. Due to improved facilities and an overall decrease in the amount of impervious areas on the RSP project area, the amount of decrease would be three percent. Preliminary assessment indicated that Cactus Basin Number 1 may require an improved spillway to accommodate the RSP project. Impacts for this improvement would be mitigated through standard engineering, permitting, and construction conditions imposed upon projects of this type. For this reason, as well as for the decrease in impervious flows, subarea flow routing changes, and the planned implementation of more retention basins within the Cactus Basin System, the impacts related to the construction or expansion of existing stormwater facilities was considered as less than significant. (City of Rialto, 2010a, pp. 4.16-15 and 4.16-19)

No Substantial Change from Previous Analysis: The proposed Project would be required to include a stormwater collection system which would route stormwater into the existing storm drain located within Renaissance Parkway. The Project would be required to comply with all applicable federal, State, and local regulations related to the incorporation of detention and/or stormwater treatment features, including compliance with NPDES and WQMP requirements, to ensure that the runoff from the proposed Project would be less than the exiting condition 100-year peak flow rates. Consistent with the *RSP Final EIR* impact would be less than significant and no mitigation is required.

d) Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

RSP Final EIR Finding: The *RSP Final EIR* disclosed that buildout of the RSP would have a total projected water demand of approximately 4,543 acre-feet annually. Impacts were determined to be less than significant and no mitigation was required (City of Rialto, 2010b, Table 1-1). According to the Water Supply Assessment prepared for the RSP project, the RSP project would have sufficient water supplies available to serve the RSP project from existing entitlements and resources, and new or expanded entitlements would not be needed (City of Rialto, 2010a, p. 4.16-19)

No Substantial Change from Previous Analysis: Because the proposed Project does not propose to construct more than 650,000 s.f. of floor space, a water supply assessment is not required for the proposed Project. As discussed in Section 4.8, *Hydrology and Water Quality*, the Project site is located within the service area of the Fontana Water Company (FWC). FWC's water supply sources include water produced from local groundwater basins, local surface water, and imported surface water. FWC currently derives its water supply from groundwater wells that produce water from three adjudicated groundwater basins (Chino Basin, Rialto Basin, and Lytle Basin) and one un-adjudicated groundwater basin (No Man's Land Basin), with the Chino Basin as FWC's primary groundwater source. FWC also derives a portion of

its water from local surface flows from Lytle Creek and untreated imported State Water Project water from San Bernardino Valley Municipal Water District and Inland Empire Utilities Agency. As discussed in FWC's Urban Water Management Plan (UWMP), FWC anticipates that it will be able to meet projected water demands within its service boundaries for a normal water year, single-dry year, and multiple dry years until the year 2035 (FWC, 2010, pp. 5.15 thorugh 5.16) The *RSP Final EIR* determined that FWC's supplies are sufficient to meet the demands of the RSP project area. The *RSP Final EIR* assumed an average water demand of 3,500 gallons per acre for commercial and office land uses across the entire RSP, and the commercial demand rate would apply to the Project site with Freeway Commercial uses as proposed by the Project. Based on the RSP Final EIR Water Supply Assessment (WSA), the RSP project demand for commercial uses is 3,500 gallons per day per acre (gpd/ac). The Project site is approximately 5.3 acres; therefore, the proposed Project is calculated to use approximately 18,550 gpd. The proposed Project would be operational 365 days per year. Therefore, the proposed Project's calculated water demand would be 6,770,750 gallons per year.

In addition, FWC's UWMP determined that it will meet the water demands within its service boundaries, which includes the Project site. Since the time the *RSP Final EIR* was published, California has experienced drought conditions. In response, the Fontana Water Company has complied with State mandates to reduce water consumption. As part of the Water Company's self-certification of supply reliability under California Code of Regulations, Title 23, Section 864.5, the most recent documentation submitted to the State Water Resources Control Board (on June 22, 2016) demonstrates surplus available supplies to meet projected demands over the next three years under continued drought conditions. (FWC, 2016)

f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Not comply with federal, state, and local statutes and regulations related to solid waste?

RSP Final EIR Finding: The RSP Final EIR considered impacts to be less than significant with payment of impact fees that help offset the initial expense of capital improvements that are required as a direct result of new development. Therefore, no mitigation was required. The RSP Final EIR determined that buildout of the RSP project area would incrementally increase the solid waste generated in the RSP project area and its vicinity. However, it was determined that the Mid-Valley Sanitary Landfill in the RSP Project area had the capacity to receive solid waste from the RSP project. At the time of preparation of the RSP Final EIR, EDCO Disposal (now Burrtec) was the waste hauler in the RSP project area. (City of Rialto, 2010b, Table 1-1 and pp. 4.16-15 and 4.16-16) The City of Rialto's Waste Management Office oversees the City's trash and recycling services provided by Burrtec Waste Industries.

No Substantial Change from Previous Analysis: As discussed in the *Final RSP EIR*, the *RSP*'s commercial uses are calculated to result in approximately 14,716 employees. Based on the generation rate used in the *RSP Final EIR* (2.35 tons per employee per year), the *RSP*'s commercial uses would generate 34,645 tons of solid waste per year (2.35 x 14,716 = 34,645 tons) or 94.92 tons per day (34,645 ÷ 365 days). (City of Rialto, 2010b, pg. 4.16-16) The Mid-Valley Landfill permitted maximum tonnage is 7,500 tons per day with a design capacity of 101.3 million cubic yards an expected operational life through 2033 (CalRecycle,

2010). Therefore, the entire *RSP* and proposed Project would be served by a landfill with sufficient capacity to accommodate the proposed Project's solid waste disposal needs. Consistent with the *RSP Final EIR*, impacts would be less than significant with payment of impact fees that help offset the initial expense of capital improvements that are required as a direct result of new development.

Mitigation: None required by the RSP Final EIR and none required for the proposed Project.

Conclusion: Impacts would be less than significant. Implementation of the proposed Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with the environmental factor of utilities.

4.18 GREENHOUSE GAS EMISSIONS (CLIMATE CHANGE)

Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

c) Be inconsistent with AB 32's GHG reduction goal by failing to reduce GHG emissions by at least 28 percent below an ARB 2020 No Action Taken ("NAT") scenario?

The *RSP Final EIR* analyzed climate change in respect to Threshold (c) above. The *RSP Final EIR w*as adopted prior to the revision of Appendix G (Environmental Checklist Form) of the State CEQA Guidelines that added the environmental topic of greenhouse gas emissions and thereby Thresholds (a) and (b) as listed above. All of the thresholds (a), (b), and (c) as listed above were analyzed for the proposed Project in the Project's Greenhouse Gas Analysis (GHGA) included as *Appendix B* to this EIR Addendum.

RSP Final EIR Finding: Under CEQA, project GHG emissions are to be analyzed on a cumulative basis because of the nature of climate change as a global problem that only occurs because of the GHG emissions from emissions from many contributors. Accordingly, the RSP project-specific GHG impact was evaluated on a cumulative basis. The *RSP Final EIR* considered impacts as significant and unavoidable. (City of Rialto, 2010a, p. 4.17-1) (Urban Crossroads, Inc., 2016b, Table 1-1)

No Substantial Change from Previous Analysis: Global Climate Change (GCC) occurs as the result of global emissions of greenhouse gases (GHGs). An individual project such as the proposed Project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines § 15130[f]). Accordingly, the Project-specific impact analysis reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations but would generate cumulatively considerable

GHG emissions that may have a significant impact on the environment because the Project would exceed the SCAQMD's GHG emissions threshold for mixed-use projects of 3,000 MTCO2e per year. This finding is consistent with the finding of the RSP Final EIR, which concluded that climate change impacts resulting from buildout of the RSP would be cumulatively significant and unavoidable.

Urban Crossroads, Inc. prepared a GHG analysis for the proposed Project, which is included as *Appendix B* to this EIR Addendum. The purpose of the Project's GHG analysis was to evaluate net new Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the proposed Project, and to compare the proposed Project impacts with the RSP project impacts analyzed and disclosed in the RSP Final EIR. (Urban Crossroads, Inc., 2016b, p. 1)

The proposed Project would be required to comply with regulations imposed by the State of California and the SCAQMD aimed at the reduction of air pollutant emissions (refer to the Project's GHGA (*Technical Appendix B*) for a discussion of the regulations). The regulations that are directly and indirectly applicable to the proposed Project and that would assist in the reduction of greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (AB32)
- Pavley Fuel Efficiency Standards (AB1493)
- Title 24 California Code of Regulations (California Building Code)
- Title 17 California Code of Regulations (Low Carbon Fuel Standard)
- California Water Conservation in Landscaping Act of 2006 (AB1881) (Urban Crossroads, Inc., 2016b, p. 2)

A. Climate Change Setting

Refer to the Project's GHGA (*Technical Appendix B*) for an introduction to climate change and global climate change defined. (Urban Crossroads, Inc., 2016b, pp. 8-9)

Greenhouse Gases

Emissions of carbon dioxide, methane, and nitrous oxide were evaluated in the Project's GHGA because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases. (Urban Crossroads, Inc., 2016b, p. 11)

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected greenhouse gases are summarized in Table 2-2 of the Project's GHGA (Technical Appendix B). As shown in the Table 2-2, GWP for the Second Assessment Report (SAR) range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the AR4 range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride. (Urban Crossroads, Inc., 2016b, p. 9) Common gases that contribute to GCC include water vapor (H_2O), Carbon

dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Chlorofluorocarbons (CFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride (SF_6).

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected greenhouse gases are summarized in Table 2-2 of the Project's GHGA (Technical Appendix B). As shown in the Table 2-2, GWP for the Second Assessment Report (SAR) range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the AR4 range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride. (Urban Crossroads, Inc., 2016b, p. 9) Common gases that contribute to GCC include water vapor (H_2O), Carbon dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Chlorofluorocarbons (CFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride (SF_6). Refer to Section 2.4 of the Project's GHGA for a discussion of these gasses and their associated human health effects and refer to Section 2.5 of the Project's GHGA for a discussion of the effects of climate change in California. (Urban Crossroads, Inc., 2016b, pp. 10-17) Refer to Section 2.7 of the Project's GHGA for a discussion of the Project's regulatory setting (Urban Crossroads, Inc., 2016b, pp. 18-31).

B. Project Greenhouse Gas Impact

Project-Related Greenhouse Gas Emissions

CEQA Guidelines §15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project. On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, Urban Crossroads, Inc. used the 2013 version of CalEEMod™ for the proposed Project to determine construction and operational air quality impacts. (Urban Crossroads, Inc., 2016b, p. 33)

Construction and Operational Life-Cycle Analysis

A full life-cycle analysis (LCA) for construction and operational activity is not included in the Project's GHG analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure, and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. Therefore, at this time, a LCA would be extremely speculative and thus has not been prepared. (Urban Crossroads, Inc., 2016b, p. 33)

Construction Emissions

The Project's Air Quality Impact Analysis (*Technical Appendix A*) provides additional details on the specific construction-related inputs programmed in the CalEEMod model. For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over

the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by a 30- year project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. (Urban Crossroads, Inc., 2016b, p. 33)

Operational Emissions

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources (refer to Section 3.6 of the Project's GHGA for a discussion of the sources of operational emissions):

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution (Urban Crossroads, Inc., 2016b, p. 34)

Emissions Summary

For informational purposes only, and consistent with the analysis methodology used in the *RSP Final EIR*, the Project's GHG emissions were evaluated to determine if they fall 28.5% or more below a California Air Resources Board (ARB) 2020 No Action Taken (NAT) Scenario. NAT assumes that no actions to reduce emissions were taken as compared to the assumptions used in preparing the baseline 2020 emissions for the California Air Resources Board Scoping Plan to implement Assembly Bill (AB) 32. CARB defines NAT in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-gathering sector were compiled and used to estimate emissions for 2020 based on 2002-2004 emission intensities. For analysis purposes, 2005 emission intensities were used by Urban Crossroads, Inc. as the NAT scenario due to the fact that it was the most appropriate year made available in CalEEMod 2013.2.2. It should be noted that CARBs definition of NAT is 2002-2004 average emissions estimates grown out to 2020 without accounting for any regulatory requirements put in place prior to AB 32. Thus, use of 2005 emission intensities is appropriate for modeling and comparison purposes for NAT conditions. (Urban Crossroads, Inc., 2016b, p. 1)

As shown on Table 4-25, *2020 Project GHG NAT Scenario (Annual),* and Table 4-26, *2020 Project GHG Scenario (Annual),* the 2020 NAT Project GHG emissions would total 6,723.45 MMTCO2e and the 2020 Project GHG emissions would total 4,892.92 MTCO2e, respectively. As summarized in Table 4-27, *Summary of GHG Emissions for 2020 NAT vs. 2020 Project*, this results in a 27.23% reduction from the 2020 NAT scenario; thus, the Project would not meet the 28.5% 2020 NAT Scenario. Therefore, the proposed Project would result in a significant and cumulatively considerable impact. This finding is consistent with the significant and unavoidable impact conclusion identified in the *RSP Final EIR* with respect to GHG emissions. (Urban Crossroads, Inc., 2016b, p. 36)

Table 4-25 2020 Project GHG NAT Scenario (Annual)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2E
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	4.00E-05	0.00	9.97E-03
Energy	1,854.26	0.06	0.02	1,862.73
Mobile Sources	4,714.38	0.51	0	4,725.07
Waste	37.04	2.19	0	83.01
Water Usage	27.89	0.2	4.86E-03	33.55
Total CO_2E (All Sources)	6,723.45			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.
Table results include scientific notation. e is used to represent times ten raised to the power of (which would be written as x 10b") and is followed by the value of the exponent

Table 4-26 2020 Project GHG Scenario (Annual)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2E
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	4,892.92			

Table 4-27 Summary of GHG Emissions for 2020 NAT vs. 2020 Project

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2020 NAT	2020
Annual Construction-related emissions amortized over 30 years	19.08	19.08
Area	0.01	0.01
Energy Use	1,862.73	1,281.88
Mobile Sources	4,725.07	3,483.36
Waste	83.01	83.01
Water Usage	33.55	25.58
Total	6,723.45	4,892.92
Project Minimum Reduction over 2020 NAT	**27.23%**	
Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

The City of Rialto (City) has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse gas (GHG) emissions. (Urban Crossroads, Inc., 2016b, p. 1) For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The SCAQMD Working Group has identified a "screening-level threshold of 3,000 MTCO2e/year for all land use types, which has been used as the significance criterion in this analysis. Refer to the Executive Summary of the Project's GHGA (*Technical Appendix B*) for a discussion regarding incremental GHG emissions as cumulatively considerable and a discussion of the appropriate significance criterion. (Urban Crossroads, Inc., 2016b, pp. 1-2)

As shown in Table 4-28, *Project vs. RSP Final EIR GHG Emissions Comparison,* the proposed Project would result in approximately 1,321.74 MTCO2e per year from construction, area, energy, waste, and water usage. In addition, the Project has the potential to result in an additional 3,480.64 MTCO2e per year from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 4,892.92 MTCO2e per year. As such, the proposed Project would exceed the SCAQMD's numeric threshold of 3,000 MTCO2e if it were applied. Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions. Notwithstanding, the overall GHG impacts of the proposed Project would be less than what was disclosed in the *RSP Final EIR.* As such, no new significant impacts would occur with respect to the proposed Project. (Urban Crossroads, Inc., 2016b)

Table 4-28 Project vs. RSP Final EIR GHG Emissions Comparison

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0.00	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	**4,892.92**			
SCAQMD Threshold	3,000			
Threshold Exceeded?	**YES**			
Renaissance SP EIR GHG Emissions	**301,445.00**			
Threshold Exceeded?	**YES**			
Net Change	**-296,552.08**			
New Significant Impacts?	**NO**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

Mitigation: Consistent with the requirements of the RSP document, the proposed Project's design features are required to be reviewed in conformance with the provisions of RSP Chapter 6, *Sustainability*, during the development review process (City of Rialto, 2010c, p. 6-1). The following *RSP Final EIR* mitigation measures are applicable to the proposed Project to reduce the Project's GHG emissions to the maximum practical extent.

CC-2. Where appliances are offered by homebuilders, Energy Star appliances will be installed.

CC-3. The Proposed Project will comply with any applicable local Climate Action Plan or mitigation program for the reduction of GHGs adopted by the City of Rialto or the County of San Bernardino that is adopted prior to the issuance of building permits for subsequent project phases.

CC-4. The Proposed Project shall promote the use of alternative fuel technologies for construction vehicles by including language in construction bid specifications and weighting the use of alternative fuel technologies in the selection of construction contractors.

CC-5. Throughout construction, the Proposed Project shall maintain a centralized information repository for available recycled building materials. Recycled building materials shall be incorporated where practicable.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

RSP Final EIR Finding: In regards to biological and cultural resources, the *RSP Final EIR* found that impacts would be less than significant after the application of feasible mitigation measures.

No Substantial Change from Previous Analysis: All impacts to the environment, including impacts to habitat for fish and wildlife species, fish and wildlife populations, plant and animal communities, rare and endangered plants and animals, and historical and pre-historical resources were evaluated as part of the *RSP Final EIR* and this Environmental Evaluation. Throughout the *RSP Final EIR* and this Environmental Evaluation, where impacts were determined to be potentially significant, mitigation measures have been imposed to reduce those impacts where feasible. The Project would disturb a portion of RSP Planning Area 11, which was evaluated for full disturbance as part of the *RSP Final EIR*. No prehistoric or historic sites are currently present within the boundaries of Planning Area 11, which envelops the Project site. Consistent with the finding of the *RSP Final EIR*, biological resource impacts would be less than significant with the application of mitigation. The Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

RSP Final EIR Finding: The *RSP Final EIR* determined that the following impacts were cumulatively considerable.

- Air Quality: Cumulative air quality emissions;
- Noise: Cumulative and project level vehicular noise off site (permanent increase);
- Traffic: Freeway segments from project and cumulative traffic;
- Greenhouse Gas Emissions (Climate Change): Generation of GHG emissions; and
- Greenhouse Gas Emissions (Climate Change): Conflict with applicable plans.

No Substantial Change from Previous Analysis: In compliance with CEQA Guidelines (§ 15130 et seq.), this section includes a discussion of the potential cumulative impacts of the proposed Project. As defined by CEQA § 15355:

"Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

If the cumulative impact is significant, the Project's incremental effect is analyzed to determine if its contribution to the overall cumulative effect is cumulatively considerable. A significant cumulative impact does not necessarily mean that the Project-related contribution to that impact is also significant. Instead, under CEQA, a project-related contribution to a significant cumulative impact is only significant if the contribution is "cumulatively considerable," which, as defined by CEQA Guidelines §15064(h)(1), "means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects".

The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone. Further, the discussion is guided by the standards of practicality and reasonableness.

Since approval of the RSP in 2010, the City certified the 2010 General Plan Update (GPU) EIR (SCH No. 2008071100), which is herein incorporated by reference and available for public review at the location cited in the References section of this document. The 2010 General Plan Update EIR identified one significant, cumulative environmental impact resulting from future planned growth within the City through 2040: Greenhouse Gas Emissions (climate change). The GPU applies to the entire geographic area of the City of Rialto; it directs population growth and plans for infrastructure needs, development, and resource protection. The GPU EIR comprehensively evaluated environmental impacts that would result from GPU implementation, including information related to existing site conditions, analyses of the types and magnitudes of project level and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. The GPU EIR projected that the City's population would increase 26 percent from 2008 to 2040. Buildout of the RSP was included as part of those projections. When the proposed Project's impacts are considered in a cumulative context, the proposed Project would not make a new substantial contribution to cumulatively considerable impacts in any subject area based on the detailed evaluation contained above under Sections 4.1 through 4.17.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

RSP Final EIR Finding: The RSP project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, was discussed throughout the *RSP Final EIR.* In instances where the RSP project was determined to have the potential to result in direct or indirect adverse effects to human beings (air quality and associated effects on human health from air pollutants and noise impacts on sensitive receptors), mitigation measures were applied to ensure impacts did not rise to above a level of significance.

No Substantial Change from Previous Analysis: The Project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, was discussed throughout the RSP *Final EIR* and throughout this Environmental Evaluation. In instances where the Project has the potential to result in direct or indirect adverse effects to human beings (air quality and associated effects on human health from air pollutants and noise impacts on sensitive receptors), *RSP Final EIR* mitigation measures have been applied to ensure impacts do not rise above a level of significance. With required implementation of *RSP Final EIR* mitigation measures identified in this Environmental Evaluation, consistent with the findings of the *RSP Final EIR*, construction and operation of the proposed Project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings, either directly, or indirectly.

5.0 REFERENCES

Cited As	Reference
(CalEPA, 2016)	California Environmental Protection Agency (CalEPA), 2016. "Cortese List Data Resources". Accessed on July 28, 2016. Available online at: http://www.calepa.ca.gov/sitecleanup/corteselist/default.htm
(City of Rialto, 2010a)	City of Rialto. *2010a. Draft Environmental Impact Report for the Renaissance Specific Plan.* May 3, 2010. Available for review at: Rialto Development Services Department, Planning Division; 150 South Palm Avenue, Rialto, CA 92376.
(City of Rialto, 2010c)	City of Rialto. 2010c. *Renaissance Specific Plan.* October 2010. Available for review at: Rialto Development Services Department, Planning Division; 150 South Palm Avenue, Rialto, CA 92376.
(City of Rialto, 2010b)	City of Rialto. 2010c. *Response to Comments/Final Environmental Impact Report. Renaissance Specific Plan in the City of Rialto, San Bernardino County, California. State Clearinghouse #2006071021*. Report Date: July 28, 2010. Revised: October 26, 2010. Available for review at: Rialto Development Services Department, Planning Division; 150 South Palm Avenue, Rialto, CA 92376.
(FWC, 2010)	Fontana Water Company. 2010. Fontana Water Company 2010 *Urban Water Management Plan*. July 2011. Accessed August 8, 2016. Available online at: http://www.fontanawater.com/FWC_UWMP(070111).pdf
(FWC, 2016)	Fontan Water Company. (FWC) 2016. *Fontana Water Company's Water Supply Reliability Certification 6/22/2016.* Accessed on August 18, 2016. Available online at: http://www.sgvwater.com/wp-content/uploads/FWC-Water-Supply-Reliability-Self-certification.pdf
(Rialto, California - Municipal Code)	Rialto, California- Municipal l Code. Available online at: https://www.municode.com/library/ca/rialto/codes/code_of_ordinances
(State of California Department of Conservation, 2014)	State of California Department of Conservation, 2014a. "California Important Farmland Finder." Accessed on July 28, 2016. Available online at: http://maps.conservation.ca.gov/ciff/ciff.html
(Urban Crossroads, Inc., 2016a)	Urban Crossroads, Inc. 2016a. *Commercial Development Air Quality Impact Analysis.* September 13, 2016. Attached to this EIR Addendum as Technical Appendix A.
(Urban Crossroads, Inc., 2016b)	Urban Crossroads, Inc. 2016b. *Commercial Development Greenhouse Gas Analysis*. September 7, 2016. Attached to this EIR Addendum as Technical Appendix B.

Cited As	**Reference**
(Urban Crossroads, Inc., 2016c)	Urban Crossroads, Inc. 2016c *Commercial Development Noise Impact Analysis*. October 10, 2016. Attached to this EIR Addendum as Technical Appendix H1.
(Urban Crossroads, 2016d)	Urban Crossroads, Inc. 2016d. *Commercial Development Traffic Impact Analysis.* March 15, 2016. Attached to this EIR Addendum as Technical Appendix I1.
(Urban Crossroads, Inc., 2016e)	Urban Crossroads, Inc. 2016e. *Commercial Development Supplemental Assessment.* September 13, 2016. Attached to this EIR Addendum as Technical Appendix I2.

6.0 LIST OF PREPARERS

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7.0 MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
AESTHETICS		
None required by the *RSP Final EIR* and none required for the proposed Project.	N/A	N/A
AGRICULTURAL RESOURCES		
None required by the *RSP Final EIR* and none required for the proposed Project.	N/A	N/A
AIR QUALITY		
AQ-1. Prior to construction of the project, the project proponent shall prepare a Large Operation Notification that will describe the application of standard best management practices to control dust during construction. Best management practices will include application of water on disturbed soils a minimum of three times per day, covering haul vehicles, replanting disturbed areas as soon as practical, and restricting vehicle speeds on unpaved roads to 15 mph, and other dust control measures, as deemed appropriate to the site or as included in the South Coast Air Quality Management District (SCAQMD) Rule 403. The Large Operation Notification shall be submitted to the City and SCAQMD for approval prior to construction.	Project Proponent / City of Rialto Development Services Divisions	Prior to construction of the Project.
AQ-2. During project construction, construction equipment shall be properly maintained at an offsite location in accordance with manufacturer's specifications; maintenance shall include proper tuning and timing of engines. The equipment maintenance records and equipment design specification data sheets shall be available during construction and subject to inspection.	Project Construction Contractor(s)/City of Rialto Development Services Divisions	During Project construction.
AQ-3. During project construction, the developer shall require all contractors to turn off all construction equipment when not in use or limit idling to less than 5 minutes.	Project Developer and Project Construction Contractor(s) / City of Rialto Development Services Divisions	During Project construction.
AQ-4. Prior to construction of the project, the project proponent shall prepare a Traffic Control Plan and submit it to the City of Rialto. The Plan shall describe in detail safe detours around the project construction site and	Project Proponent / City of Rialto Development Services Divisions	Prior to construction of the Project.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
congested streets. The Plan shall provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. The Plan is primarily intended as a safety measure but also can minimize traffic congestion and delays that increase idling and acceleration emissions. The Plan shall include the scheduling of construction truck trips during non-peak hours to reduce peak hour emissions. The Plan shall include the consolidation of truck deliveries, where feasible. The Plan shall also provide for dedicated turn lanes for movement of construction vehicles onsite and offsite. The Plan shall also provide for proper configuration of construction parking to minimize traffic interference. The Plan shall be prepared in accordance with U.S. Department of Transportation Federal Highways Administration Rule on Work Zone Safety 23CFR 630 Subpart J, Developing and Implementing Traffic Management Plans for Work Zones.		
AQ-5. Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable; and use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. All paints shall be low VOC content paints. For a list of low volatile organic compound (VOC) paints, see www.aqmd.gov/prdas/brochures/paintguide.html.	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During Project construction.
AQ-6. Prior to issuance of a grading permit, a Construction Employee Trip Reduction Plan shall be created. Included in the Plan shall include a shuttle service to and from retail establishments during lunch hour and/or an onsite lunch service. The Plan shall also include carpooling and/or transit incentives for the construction employees.	Project Construction Contractor(s) / City of Rialto Development Services Divisions	Prior to the issuance of a grading permit.
AQ-7. During project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.	Project Construction Contractors(s) / City of Rialto Development Services Divisions	During Project construction.
AQ-8. Grading activity shall not occur on days with an Air Quality Index forecast for San Bernardino County greater than 100 for particulates or ozone. The categories where grading shall not occur are: unhealthy for sensitive	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During grading activity.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
groups, unhealthy, very unhealthy, or hazardous. Air Quality Index forecasts can be obtained at the website: www.airnow.gov/index.cfm?action=airnow.showlocal&CityID=211		
AQ-9. All diesel-powered off-road construction equipment in excess of 50 brake horsepower shall be required to have emission control equipment with a minimum of Tier II diesel particulate filter emission controls resulting in a minimum of 50 percent particulate matter control, if such a filter is available for that piece of equipment. Off-road diesel emission control equipment meeting this requirement can be found at: www.aqmd.gov/ceqa/handbook/mitigation/offroad/AQ_offroad.html. If CARB adopts more stringent off-road construction equipment control technology for equipment in excess of 50 brake horsepower that is feasible to utilize during the construction of the Project it shall be used.	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During construction activities.
AQ-10. The following shall be included in the Specific Plan: • Synchronize traffic lights on streets impacted by development; • Light colored roofing materials shall be used on all exposed roofs; • Preferential parking for carpool/vanpool vehicles at the non-residential uses; • Secure weather-protected bicycle parking for employees at the non-residential uses; • Connect bicycle lanes/paths to project-wide network; • Provide showers and lockers for employees bicycling or walking to work at the non- residential uses where feasible; • Short-term bicycle parking for retail customers and other non-commuting trips; and • Construct transit facilities such as bus turnouts, benches, and shelters that encourage mass transit usage and provide safe pedestrian access from proposed project facilities to transit stops.		
AQ-13. The following uses shall not be located within the distance specified from an existing or future sensitive receptor (residence, school, hospital, nursing home daycare center, park and playground): within 500 feet of the 210	Project Proponent / City of Rialto Development Services Divisions	Prior to issuance of a grading permit.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
Freeway; within 500 feet of the equipment within a dry cleaning facility utilizing Perchloroethylene, and within 300 feet of a fueling station facility (i.e. fuel pumps). These facilities may be located closer than the proscribed distances if a project-specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.		
AQ-14. The following uses shall not be located within 1000 feet of a nearby sensitive receptor (occupied portions of existing or future residences, schools, hospitals, nursing homes, daycare centers, parks and playgrounds): a warehouse, distribution center, or logistics center unless a project- specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.	Project Proponent / City of Rialto Development Services Divisions	Prior to issuance of a grading permit.
AQ-15. Truck routes within the Renaissance Specific Plan shall be clearly marked by signage. The design, location, and installation of truck route signage shall be to the satisfaction of the Public Works Director.	Project Proponent/ City of Rialto Development Services Divisions	Prior to issuance of a grading permit.
BIOLOGICAL RESOURCES		
B-3: Portions of the project site have been determined to contain suitable habitat for BUOW, as illustrated in Exhibit 4.4-2c [of the *RSP Final EIR*] (PAs 2, 22c, 23, 28, 32, 33, 35- 57, 60a, 60b, 60c, 64, 69, 70 as appropriate). Prior to development of these areas, focused surveys must be undertaken to determine the presence/absence of this species. Surveys shall follow protocols established by the CDFG. If the ground disturbance commences after the expiration of the most recent BUOW focused survey, a pre-construction survey for BUOW will be required 30 days before the start of grading activities to confirm the absence of BUOW from the site. If the survey determine the BUOW to be present, protective measures shall be required to ensure compliance with the Migratory Bird Treaty Act and other applicable CDFG Code requirements and include, but are not limited to the following:	Project Proponent and/Project Biologist / City of Rialto Development Services Divisions	Within 30 days before the start of grading activities.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
• Occupied BUOW shall not be disturbed during nesting season (February 1- August 31) unless a qualified biologist verifies through non-invasive methods that either 1) the birds have not begun egg-laying or incubation or2) that juveniles from the occupied burrows are foraging independently and are capable of an independent survival flight • All relocation shall be approved by the CDFG. The permitted biologist shall monitor relocated owls a minimum of three days per week of a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to the CDFG within 30 days following completion of the relocation and monitoring of the BUOW. • BUOW Mitigation Monitoring Plan prepared by a qualified biologist shall be submitted to the CDFG for review and approval prior to relocation of owls. The BUOW Mitigation Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location(s) of occupied BOUW sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, locations, and type of burrows) shall be included in the plan. The plan shall also describe specific procedures to compensate for impacts to BUOW/occupied burrows. Such procedures may include, but are not limited to, the purchase/conservation of offsite suitable habitat that is known to support BUOW at a minimum 1:1 ratio depending on the quality of habitat removed compared to the quality of habitat provided. Specific ratios will be determined in consultation with CDFG. Prior to the issuance of occupancy permits, the developer shall provide copies of applicable species mitigation agreements/permits to the City. • If BUOW must be moved away from the disturbance area, passive relocation techniques shall be used. One or more weeks will be necessary to accomplish this relocation and allow the owls to acclimate to alternative burrows. Owls must be relocated by a qualified biologist from any		

	MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
	occupied burrows that will be impacted by project activities. Suitable habitat is undeveloped land that can meet the BUOW's life cycle requirements (for both foraging and breeding) and is not intended for development. Suitable habitat must be adjacent or near the disturbance site or artificial burrows will need to be provided nearby. Once the biologist has confirmed that the BUOWs have left the burrow, burrows should be excavated using hand tools and refilled to prevent reoccupation.		
B-4:	Due to the size of the [project site], the complexity of the habitat, and the secretive nesting grassland bird species that may be present (including the California horned lark and western meadowlark), the initial clearing and grubbing of the site should occur outside of the nesting season (March through August). If ground disturbing activities and removal of vegetation or other potential nesting habitat must occur during the nesting period, a pre-construction nesting bird survey shall be conducted prior to any ground disturbing activities. If birds are found to be nesting inside or within 250 feet (500 feet for raptors) of the impact area, construction will need to be postponed, at the discretion of a qualified biologist, until it is determined that the nests are no longer active.	Project Proponent and Project Biologist / City of Rialto Development Services Divisions	Prior to any ground-disturbing activities.
CULTURAL RESOURCES			
CR-1:	When site specific design plans are submitted for approval within the Renaissance Specific Plan and associated project-level CEQA documentation prepared, a finding of significance must be established for all cultural resources located within the proposed Planning Area based upon the inventory of cultural resources provided in the Phase I Cultural Resources Assessment (MBA 2006e). As shown in Table 4.5-2 [of this Section], 25 Planning Areas exhibit one or more cultural resources. Prior to City approval of plans for development, significance evaluations of the resource(s) located in the specific Planning Area(s) must be conducted by a qualified professional. Recordation of identified cultural resources onto DPR523 form sets shall be undertaken during the significance evaluation(s), if such recordation have not yet occurred, as established under rules and regulations regarding such matters in effect at the time of	Project Proponent and Project Archaeologist / City of Rialto Development Services Divisions (City Development Services Director)	Prior to City approvals of plans for development.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
the evaluation. This measure shall be implemented to the satisfaction of the City Development Services Director.		
CR-2: Prior to the issuance of a Grading Permit, the City of Rialto Building Official shall ensure that the Grading Plan contains the following notes: 1. If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project. 2. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior (SOI) standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input. 3. If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts	City of Rialto Building Official/Project Archeologist/Construction Contractor	Prior to the issuance of a Grading Permit

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
of which shall be provided to San Manuel Band of Mission Indians for review and comment. a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s). b. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the project.		
CR-5: Prior to the issuance of grading permits in that portion of the Specific Plan area located between Linden Avenue and the eastern project boundary (i.e., Planning Area 6, 7, 8, 9, 28, 29, 45, 46, 47, 48, 49a, 49b, 49c, 50, 53, 54, 55, 56, 57, 58, 60c, 62, 63, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81), a paleontologic field survey shall be conducted prior to development-related earthmoving activities to determine the paleontologic sensitivity of the Pleistocene eolian dune sands. This survey shall be conducted by a qualified vertebrate paleontologist with experience in regional geology. If this field survey results in a determination of high paleontologic sensitivity, a paleontologic monitoring program shall be implemented. This monitoring program shall be consistent with the provisions of CEQA and with the guidelines of the Society of Vertebrate Paleontology. If a monitoring program is found to be required and is implemented, monitoring may be reduced or eliminated if the sensitive deposits are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources. If the field assessment determines that the Pleistocene eolian dune sands have low paleontologic sensitivity, no program to mitigate adverse impacts to paleontologic resources will be necessary. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project Proponent and Project Paleontologist / City of Rialto Development Services Divisions	Prior to the issuance of grading permits.

MITIGATION MEASURES		RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
GEOLOGY AND SOILS			
GS-1	Prior to the issuance of grading permits for each planning area of the project, the project applicant or its designee shall provide design-level geotechnical reports for those areas. These reports shall consider, but shall not necessarily be limited to, such factors as manufactured slope stability (if applicable), compressible soils, corrosive soils, and the engineering and construction of occupied or inhabited structures. The findings and recommendations contained in these reports shall be implemented. As necessary, the City may require additional studies and/or engineering protocols to meet its requirements. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project Applicant or its designee and Project Geologist / City of Rialto Development Services Divisions Project Applicant or its designee and Project Geologist (State of California Certified Engineering Geologist) / City of Rialto Development Services Divisions (City Development Services Director)	Prior to the issuance of grading permits.
GS-2	Prior to the issuance of building permits for each planning area of the project, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be able to withstand a horizontal seismic acceleration of 0.96g. Specific design-level geotechnical reports shall be prepared by a State of California Certified Engineering Geologist for planning areas within the Specific Plan to determine that structures within those areas meet required design criteria. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project Applicant or its designee and Project Geologist (State of California Certified Engineering Geologist) / City of Rialto Development Services Divisions (City Development Services Director)	Prior to the issuance of building permits.
GS-3	Prior to the issuance of building permits for each planning area, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be constructed to the standards outlined in the Uniform Building Code, the California Building Code, the design-level geotechnical reports, and/or other such standard as identified and required by the City. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project Applicant or its designee and Project Geologist (State of California Certified Engineering Geologist) / City of Rialto Development Services Divisions (City Development Services Director)	Prior to the issuance of building permits.
GS-4	During construction and excavation activities on the project site, all temporary slopes (i.e., excavations and trenching) shall be adequately shored and/or flattened to a shallower gradient to lessen the possibility of failure. All Cal-OSHA regulations shall be implemented for excavations that will be entered by people. All excavations will be open only as long as is necessary and shall be backfilled immediately upon completion of work.	Project Applicant or its designee and Project Geologist (State of California Certified Engineering Geologist) / City of Rialto Development Services Divisions	During construction and excavation activities.

	MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
	This measure shall be implemented to the satisfaction of the City Development Services Director.	(City Development Services Director)	
GS-5	Prior to the issuance of grading permits, the project applicant or its designee shall present an Erosion Control Plan (ECP) designed to lessen the impacts of erosion during construction. This plan shall comply with all applicable grading codes and water quality protection protocols. This plan shall be implemented during site construction. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project Applicant or its designee and Project Geologist (State of California Certified Engineering Geologist) / City of Rialto Development Services Divisions (City Development Services Director)	During site construction.
GS-6	During grading and development of the project site, all oversized material (larger than 12 inches in largest dimension) shall be handled as recommended in the project geotechnical reports. This material may be placed in deeper fills, nonstructural areas, or disposed of offsite. This measure shall be implemented to the satisfaction of the City Development Services Director.	Project contractor(s) / City of Rialto Development Services Divisions (City Development Services Director)	During grading and development of the Project site.
HAZARDS AND HAZARDOUS MATERIALS			
None required by the RSP Final EIR and none required for the proposed Project.		N/A	N/A
HYDROLOGY AND WATER QUALITY			
HYD-1	Prior to issuance of grading permits, the developers or their designees shall coordinate the design and obtain approval of all flood control and storm drain structures as identified in project hydrology studies. The developers or their designees shall provide evidence of this approval to the City Public Works Department. These improvements shall be consistent with any master planning efforts of the County to the satisfaction of the City Engineer.	Project Developer(s) of their designees / City Public works Department and City Engineer.	Prior to the issuance of grading permits.
HYD-2	The developers or their designees shall obtain a General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activity General Permit). The developers or their designees shall provide a copy of this permit to the City Public Works Department prior to the issuance of grading permits.	Project Developer(s) of their designees / City Public works Department.	Prior to the issuance of grading permits.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
HYD-3 Prior to the issuance of grading permits, the developers or their designees shall prepare a WQMP and an Erosion and Sediment Control Plan (ESCP) to implement the most appropriate BMPs and to prevent any significant removal and/or downstream deposition of soil from the project site during construction. The WQMP and ESCP shall contain provisions requiring that all erosion control measures and structures be maintained and repaired as needed for the life of the project. Prior to the issuance of a grading permit, the City Development Services Department, Engineering Division shall approve the WQMP and ESCP based on review and input by the RWQCB. At the request of the developer, the City Public Works Department may accept a Storm Water Pollution Prevention Plan (SWPPP) as a substitute for the ESCP as long as it fulfills the intent of this measure to an equivalent degree. The SWPPP or ESCP shall be prepared to the satisfaction of the City Public Works Department. The WQMP and ESCP or SWPPP shall include, but is not limited to, the following: a) Specify the timing of grading and construction to minimize soil exposure to winter rain periods experienced in southern California; b) Natural vegetation shall be retained on all areas that will not be disturbed for grading, except areas that must be cleared and revegetated as part of a fuel modification program; c) All slopes greater than five feet in height shall be evaluated to define the optimum length and steepness to minimize flow velocity and erosion potential. Lateral drainage collection systems shall be incorporated at the base of slopes, when determined appropriate, to transport flows in a controlled, non-erodible channel; d) Indicate where flows on the site can be diverted from denuded areas and carried in the natural channels on the site; e) Construct man-made channels to minimize runoff velocities;	Project Developer(s) or their designees and Project Geologist. / City Public Works Department	Prior to the issuance of grading permits.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
f) Disturbed areas shall be vegetated and mulched immediately after final grades have been established; g) Sediment traps, basins, or barriers (silt fences, hay bales, etc.) shall be established on the property to prevent the release of "first flush" urban pollutants, including sediment, from developed areas, including the emergency access roads. The design and location of these improvements shall be identified in the plan subject to review and approval by the City; h) Drainage facilities designed to transport flows shall be described and the adequacy of the channel shall be verified by City approval of a detailed drainage analysis; i) An inspection and maintenance program shall be included to ensure that any erosion, which does occur either on or offsite as a result of the project, will be corrected through a remediation or restoration program within a time frame specified by the City; j) Confirmed observations by the City of uncontrolled runoff being carried onsite will be grounds for suspension or revocation of any grading or building permit in process, or any discretionary permit subsequently applied for until the problem is resolved to the satisfaction of the City Public Works Department.		
HYD-4 Prior to the issuance of building permits, graded but undeveloped land shall be maintained in a relatively weed-free condition and/or planted with interim landscaping within 180 days of completion of grading, unless building permits are obtained. This measure shall be implemented to the satisfaction of the Development Services Director.	Project Proponent and Project Construction Contractor(s) / City of Rialto Development Services Divisions (City Development Services Director)	Prior to the issuance of building permits.
HYD-5 Prior to the issuance of occupancy permits, planting of developed land shall comply with the NPDES Best Management Practices Construction Handbook Section 6.2 to the satisfaction of the City Engineer and/or Public Works Director as applicable.	Project Proponent and Project Construction Contractor(s) / City Engineer and/or Public Works Director.	Prior to the issuance of occupancy permits.
LAND USE AND PLANNING		

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
None required by the *RSP Final EIR* and none required for the proposed Project.	N/A	N/A
MINERAL RESOURCES		
None required by the RSP Final EIR and none required for the proposed Project.	N/A	N/A
NOISE		
Since the unmitigated Project-related construction noise levels will be *less than significant* the Mitigation Measures are not required. Therefore, the construction noise and vibration abatement measures are provided consistent with the *RSP Final EIR* Mitigation Measures only where applicable (e.g. permitted hours of construction activity and properly installed and effective mufflers):		
N-1 Construction activities shall be limited to the City's allowable hours of construction activities shown in Table 4.11-2 in accordance with the City's Noise Ordinance. In compliance with MM N-1, the City will apply the following conditions on the Project: • Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays. The Project construction supervisor shall ensure compliance with the permitted construction hours. • The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00	Project Construction Contractor(s) / City of Rialto Development Services Divisions	Prior to the approval of grading plans and/or building permits.

	MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
	p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.		
N-2	All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. In compliance with MM N-2, the City will apply the following conditions on the Project: • During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During all Project construction.
N-3	Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from any nearby noise sensitive uses, unless safety or technical factors take precedence. In compliance with MM N-3, the City will apply the following conditions on the Project: • The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During Project construction.
N-5	The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed noise sensitive land uses. Each noise impact analysis shall identify potential construction noise impacts and provide mitigation, if	Project Construction Contractor(s) / City of Rialto Development Services Divisions	During Project construction.

	MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
	necessary to reduce the construction noise impacts to within the City noise level standards of the Noise Element of the Rialto General Plan. *In compliance with MM N-5, a noise study was prepared for the Project by Urban Crossroads, Inc. Construction-related noise impacts were found to be less than significant.*		
N-6	The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed noise sensitive land uses. Each noise impact analysis shall identify potential construction noise impacts and provide mitigation, if necessary to reduce the construction noise impacts to within the City noise level standards of the Noise Element of the Rialto General Plan.	Project Proponent and Project Noise Analyst / City of Rialto Development Services Divisions	Prior to City approvals of plans for development.
N-7	The City shall require that a vibration impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed vibration sensitive land uses. Each vibration impact analysis shall identify potential construction-related vibration impacts and provide mitigation, if necessary, to reduce the construction to within the County vibration level standards.	Project Proponent and Project Noise Analyst / City of Rialto Development Services Divisions	Prior to City approvals of plans for development.
N-8	The City shall require that a vibration impact analysis be prepared for any commercial or business developments located adjacent to existing or proposed vibration sensitive land uses. Each vibration impact analysis shall identify potential sources of vibration impacts and provide mitigation, if necessary, to reduce the vibration impacts to within the County standards.	Project Proponent and Project Noise Analyst / City of Rialto Development Services Divisions	Prior to City approvals of plans for development.
N-9	Prior to the issuance of building permits for the hotel, the City Building Official or their designee shall ensure that building plans include design elements that result in a Noise Reduction (NR) of up to 29.2 dBA and a means of mechanical ventilation (e.g. air conditioning). These elements shall include, at a minimum, the following components:	Project Construction Contractor(s) / City of Rialto Building Official	Prior to issuance of building permits for the hotel.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
• All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum sound transmission class (STC) rating of 40. • Any window-mounted air conditioning units used in guest rooms of the hotel building must have a minimum STC rating of 27, however, it is recommended that a minimum STC rating of 30 be used. Alternatively, through-the-wall or Packaged Terminal Air Conditioners (PTAC) may be used with a minimum STC rating of 27. • All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27. • Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one half inch thick. Ceilings shall be well fitted, well sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. • Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g. air conditioning) shall be provided which satisfies the requirements of the Uniform Building Code.		
POPULATION AND HOUSING		
None required by the RSP Final EIR and none required for the proposed Project.	N/A	N/A
Public Services		
None required by the RSP Final EIR and none required for the proposed Project.	N/A	N/A
RECREATION		
None required by the RSP Final EIR and none required for the proposed Project.	N/A	N/A
TRANSPORTATION		
T-1: The City shall ensure that Renaissance Specific Plan (RSP) generated traffic will not result in inadequate LOS for RSP project intersections. Prior to any discretionary approval of development pursuant to the RSP, the City Traffic Engineer shall use the TIA (LSA 2009) to evaluate which portion of the above-listed improvements are attributable to the proposed development, and appropriate based upon the progress of cumulative development.	Project Proponent and Project Traffic Engineer / City of Rialto Traffic Engineer	Prior to any discretionary approval of development.

MITIGATION MEASURES	RESPONSIBLE PARTY/ MONITORING PARTY	IMPLEMENTATION STAGE
Based upon this evaluation, the proposed development shall be required, to either, a) construct the applicable improvements; or b) pay appropriate fair-share fees for the development's contribution to a cumulative impact, as determined necessary to meet acceptable levels of service pursuant to the applicable jurisdiction. In accordance with this Mitigation MeasureT-1 and based on the Project's TIA, the Applicant shall contribute on a fair-share basis to the following intersections to implement improvements identified in the TIA: • Alder Avenue / I-210 Westbound Ramps • Alder Avenue / I-210 Eastbound Ramps • Alder Avenue / Renaissance Parkway • Alder Avenue / Walnut Avenue • Alder Avenue / Miro Way • Alder Avenue / Baseline Avenue		
UTILITIES		
None required by the RSP Final EIR and none required for the proposed Project.	N/A	N/A
GREENHOUSE GAS EMISSIONS (CLIMATE CHANGE)		
CC-2. Where appliances are offered by homebuilders, Energy Star appliances will be installed.	Project Proponent / City of Rialto Development Services Divisions	Prior to issuance of building permits
CC-4. The Proposed Project will comply with any applicable local Climate Action Plan or mitigation program for the reduction of GHGs adopted by the City of Rialto or the County of San Bernardino that is adopted prior to the issuance of building permits for subsequent project phases.	Project Proponent / City of Rialto Development Services Divisions and County of San Bernardino Planning Department	Prior to the issuance of building permits.
CC-5. Throughout construction, the Proposed Project shall maintain a centralized information repository for available recycled building materials. Recycled building materials shall be incorporated where practicable.	Project Proponent and Project Construction Contractor.	Throughout construction activities.

Appendix A:
Air Quality Impact Analysis

Prepared by Urban Crossroads, Inc.

August 30, 2016

Commercial Development

AIR QUALITY IMPACT ANALYSIS

CITY OF RIALTO

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SEPTEMBER 7, 2016

TABLE OF CONTENTS

TABLE OF CONTENTS I
APPENDICES II
LIST OF EXHIBITS II
LIST OF TABLES II
LIST OF ABBREVIATED TERMS III
EXECUTIVE SUMMARY 1
1 INTRODUCTION 3
1.1 Site Location 3
1.2 Project Description 3
1.3 Renaissance SP DEIR Mitigation Measures 3
2 AIR QUALITY SETTING 9
2.1 South Coast Air Basin 9
2.2 Regional Climate 9
2.3 Wind Patterns and Project Location 11
2.4 Existing Air Quality 11
2.5 Regional Air Quality 14
2.6 Local Air Quality 14
2.7 Regulatory Background 19
3 PROJECT AIR QUALITY IMPACT 23
3.1 Introduction 23
3.2 Standards of Significance 23
3.3 Project-Related Sources of Potential Impact 24
3.4 Construction Emissions 24
3.5 Operational Emissions 27
3.6 Localized Significance - Construction Activity 29
3.7 Localized Significance – Long-Term Operational Activity 32
3.8 Comparison to Analysis in Renaissance Specific Plan EIR 32
3.9 CO “Hot Spot” Analysis 34
3.10 Air Quality Management Planning 36
3.11 Potential Impacts to Sensitive Receptors 38
3.12 Odors 39
3.13 Cumulative Impacts 39
4 FINDINGS & CONCLUSIONS 43
4.1 Construction-Source Emissions 43
4.2 Operational-Source Emissions 43
5 REFERENCES 45
6 CERTIFICATION 47

APPENDICES

APPENDIX 3.1: STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS
APPENDIX 3.2: CALEEMOD EMISSIONS MODEL OUTPUTS

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP.....7
EXHIBIT 1-B: SITE PLAN.....8

LIST OF TABLES

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2).....12
TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2).....13
TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB) 14
TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2013-2015.....15
TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS.....23
TABLE 3-2: CONSTRUCTION DURATION.....25
TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS.....26
TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION.....27
TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS (1 OF 2).....28
TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS (2 OF 2).....29
TABLE 3-6 : MAXIMUM DAILY DISTURBED-ACREAGE (1 OF 2) 30
TABLE 3-6 : MAXIMUM DAILY DISTURBED-ACREAGE (2 OF 2) 31
TABLE 3-7: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (1 OF 2) 32
TABLE 3-7: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (2 OF 2) 32
TABLE 3-8: PROJECT CONSTRUCTION EMISSIONS VS RENAISSANCE SP EIR EMISSIONS 33
TABLE 3-9: PROJECT BUILD-OUT OPERATIONAL EMISSIONS VS RENAISSANCE SP EIR EMISSIONS.....34
TABLE 3-10: CO MODEL RESULTS 36
TABLE 3-11: TRAFFIC VOLUMES 36
TABLE 3-12: PEAK TRAFFIC VOLUMES 36
TABLE 3-13: CUMULATIVE IMPACTS.....41

LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m3	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACM	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
NAAQS	National Ambient Air Quality Standards
NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Pb	Lead
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Commercial Development
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area
TAC	Toxic Air Contaminant

TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

Pursuant to CEQA § 15164 (a) the lead agency shall prepare an addendum to a previously certified environmental impact report (EIR) if some changes or additions are necessary but none of the conditions described in §15162 calling for preparation of a subsequent EIR have occurred. More specifically, §15162 (a)(3)(B) states that no subsequent EIR shall be prepared for the project unless significant effects previously examined will be substantially more severe than shown in the previous EIR. A significant VOC, NOx, CO, PM10, and PM2.5 construction impact and significant VOC, NOx, CO, PM10, and PM2.5 operational impact was previously identified and disclosed in the previously analyzed Renaissance Specific Plan Draft Environmental Impact Report, referred to herein as the Renaissance SP DEIR (1).

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

Project construction-source emissions would not exceed the numerical regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for any criteria pollutants. It should be noted that Best Available Control Measures (BACMs) are not mitigation as they are standard regulatory requirements. Thus, a less than significant impact would occur for Project-related construction-source and no mitigation measures are required. As such, the overall construction impacts of the proposed Project would be less than what was disclosed in the Renaissance SP DEIR and no new impacts would occur.

LOCALIZED IMPACTS

Project construction-source emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant. Therefore, a less than significant impact would occur.

Project construction-source emissions would be consistent with the applicable Air Quality Management Plans (AQMP).

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required. As such, the overall

operational impacts of the proposed Project would be less than what was disclosed in the Renaissance SP DEIR and no new impacts would occur.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations.

Project operational-source emissions would be consistent with the applicable AQMP.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (2). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Commercial Development ("Project"). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project, and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the South Coast Air Quality Management District (SCAQMD).

1.1 SITE LOCATION

The proposed Commercial Development site is located on the southwest corner of Alder Avenue and I-210 Freeway in the City of Rialto, as shown on Exhibit 1-A.

The Project site is currently vacant and is designated by the City of Rialto General Plan Land Use Map, as Specific Plan (SP). Specifically, the Project is under the Renaissance Specific Plan (Renaissance SP), which designates the Project site as Freeway Commercial (3). Existing residential land uses in the Project study area are located west of the Project site. Existing warehouse buildings are located southwest and southeast of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, and 5,440 square feet of fast food with drive-through use, as shown on Exhibit 1-B.

For the purposes of this AQIA, it is assumed that the Project will be constructed and at full occupancy in 2019.

1.3 RENAISSANCE SP DEIR MITIGATION MEASURES

The following applicable mitigation measures are from the Renaissance SP DEIR and are required for the Project.

MM AQ-1

Prior to construction of the project, the project proponent shall prepare a Large Operation Notification that will describe the application of standard best management practices to control dust during construction. Best management practices will include application of water on disturbed soils a minimum of three times per day, covering haul vehicles, replanting disturbed areas as soon as practical, and restricting vehicle speeds on unpaved roads to 15 mph, and other dust control measures, as deemed appropriate to the site or as included in the South Coast Air Quality Management District (SCAQMD) Rule 403. The Large Operation Notification shall be submitted to the City and SCAQMD for approval prior to construction.

MM AQ-2

During project construction, construction equipment shall be properly maintained at an offsite location in accordance with manufacturer's specifications; maintenance shall include proper tuning and timing of engines. The equipment maintenance records and equipment design specification data sheets shall be available during construction and subject to inspection.

MM AQ-3

During project construction, the developer shall require all contractors to turn off all construction equipment when not in use or limit idling to less than 5 minutes.

MM AQ-4

Prior to construction of the project, the project proponent shall prepare a Traffic Control Plan and submit it to the City of Rialto. The Plan shall describe in detail safe detours around the project construction site and congested streets. The Plan shall provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. The Plan is primarily intended as a safety measure but also can minimize traffic congestion and delays that increase idling and acceleration emissions. The Plan shall include the scheduling of construction truck trips during non-peak hours to reduce peak hour emissions. The Plan shall include the consolidation of truck deliveries, where feasible. The Plan shall also provide for dedicated turn lanes for movement of construction vehicles onsite and offsite. The Plan shall also provide for proper configuration of construction parking to minimize traffic interference. The Plan shall be prepared in accordance with U.S. Department of Transportation Federal Highways Administration Rule on Work Zone Safety 23 CFR 630 Subpart J, Developing and Implementing Traffic Management Plans for Work Zones.

MM AQ-5

Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable; and use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. All paints shall be low VOC content paints. For a list of low VOC paints, see www.aqmd.gov/prdas/brochures/paintguide.html.

MM AQ-6

Prior to issuance of a grading permit, a Construction Employee Trip Reduction Plan shall be created. Included in the Plan shall include a shuttle service to and from retail establishments during lunch hour and/or an onsite lunch service. The Plan shall also include carpooling and/or transit incentives for the construction employees.

MM AQ-7

During project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.

MM AQ-8

Grading activity shall not occur on days with an Air Quality Index forecast for San Bernardino County greater than 100 for particulates or ozone. The categories where grading shall not occur are: unhealthy for sensitive groups, unhealthy, very unhealthy, or hazardous. Air Quality Index forecasts can be obtained at the website:

www.airnow.gov/index.cfm?action=airnow.showlocal&CityID=211.

MM AQ-9

All diesel-powered off-road construction equipment in excess of 50 brake horsepower shall be required to have emission control equipment with a minimum of Tier II diesel particulate filter emission controls resulting in a minimum of 50 percent particulate matter control, if such a filter is available for that piece of equipment. Off-road diesel emission control equipment meeting this requirement can be found at:

www.aqmd.gov/ceqa/handbook/mitigation/offroad/AQ_offroad.html.

MM AQ-10

The following shall be included in the Specific Plan:

- Synchronize traffic lights on streets impacted by development;
- Light colored roofing materials shall be used on all exposed roofs;
- Preferential parking for carpool/vanpool vehicles at the non-residential uses;
- Secure weather-protected bicycle parking for employees at the non-residential uses;
- Connect bicycle lanes/paths to project-wide network;
- Provide showers and lockers for employees bicycling or walking to work at the non- residential uses where feasible;
- Short-term bicycle parking for retail customers and other non-commuting trips; and
- Construct transit facilities such as bus turnouts, benches, and shelters that encourage mass transit usage and provide safe pedestrian access from proposed project facilities to transit stops.

MM AQ-13

The following uses shall not be located within the distance specified from an existing or future sensitive receptor (residence, school, hospital, nursing home): within 500 feet of the equipment within a dry cleaning facility utilizing Perchloroethylene; and within 300 feet of a fueling station facility (i.e. fuel pumps). These facilities may be located closer than the proscribed distances if a project-specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

MM AQ-14

The following uses shall not be located within 1,000 feet of a nearby sensitive receptor (occupied portions of existing or future residences, schools, hospitals, nursing homes): a warehouse, distribution center, or logistics center unless a project-specific health risk assessment is

performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

EXHIBIT 1-A: LOCATION MAP

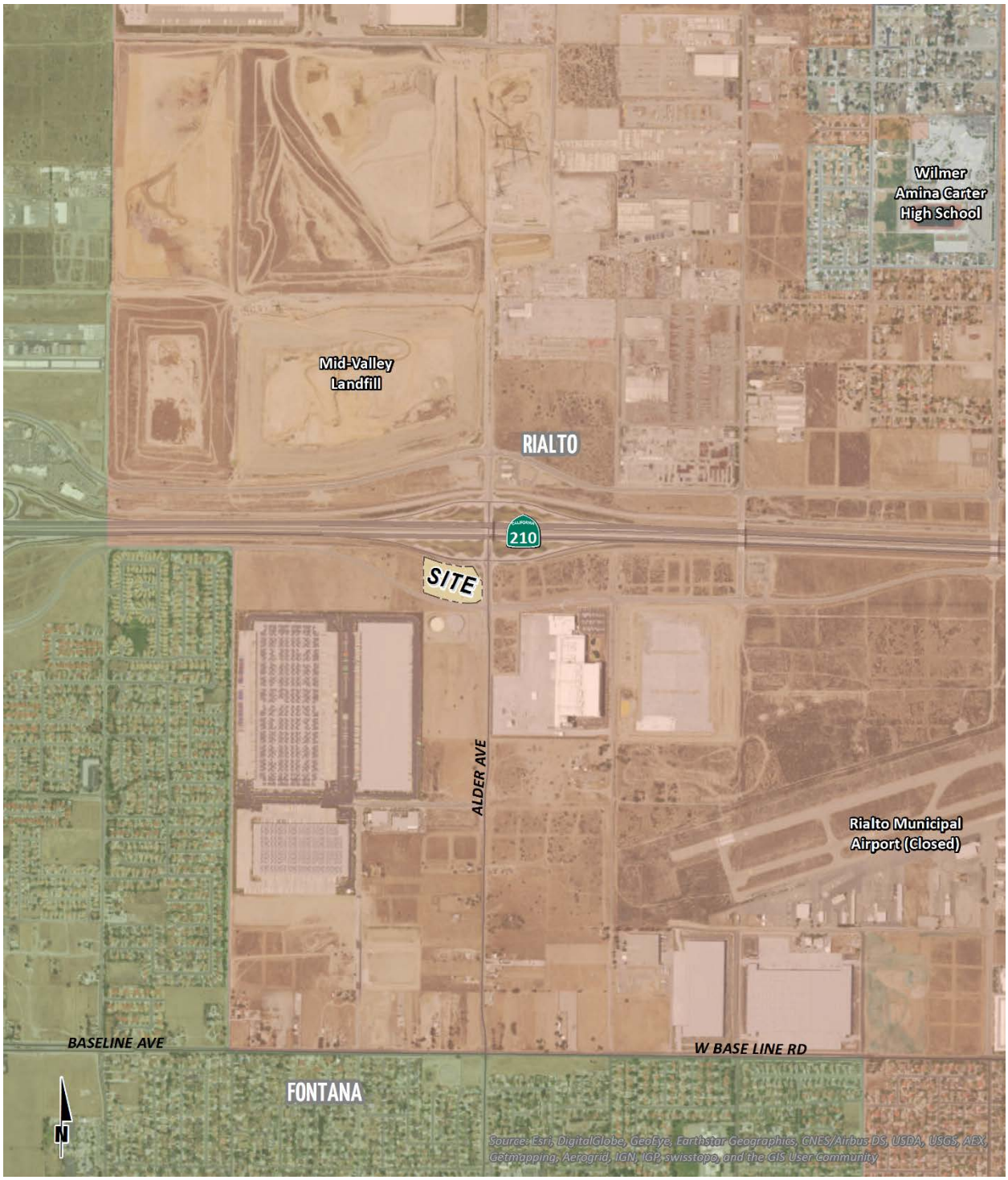
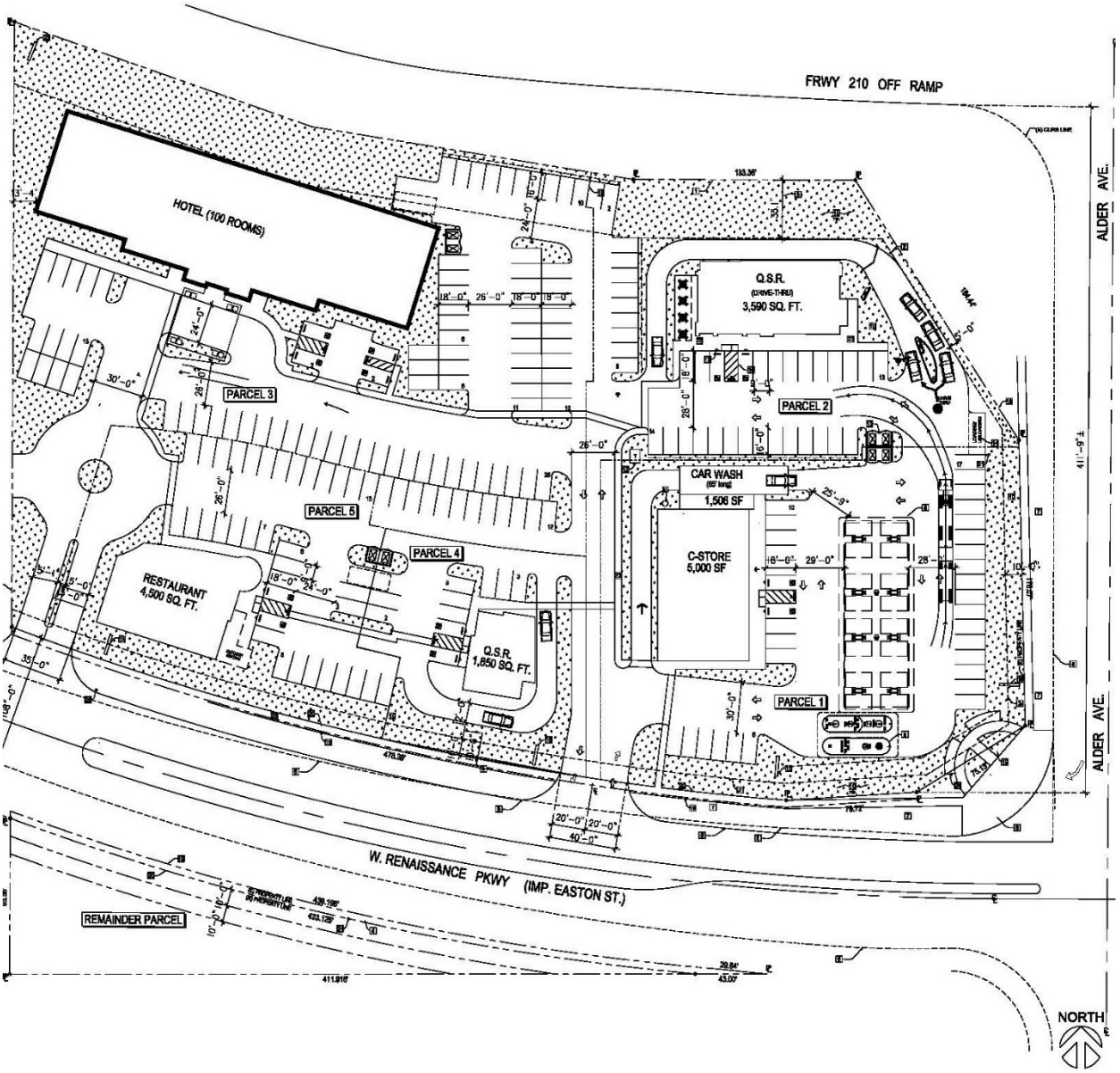


EXHIBIT 1-B: SITE PLAN



2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (9). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile sub-region of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-1 (10).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO, SO2, NO2, PM10, and PM2.5 are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O3, PM10, PM2.5, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2013, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (11). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2 for attainment designations for the SCAB (12). Appendix 3.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[1]	Attainment	Attainment

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Note: See Appendix 3.1 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O_3), Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Inhalable Particulates (PM_{10}), and Ultra-Fine Particulates ($PM_{2.5}$) is the South Coast Air Quality Management District Central San Bernardino Valley 1 monitoring station, located approximately 4.5 miles southwest of the Project site in Fontana (SRA 34).

The most recent three (3) years of data available is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (13). Additionally, data for SO2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO2 concentrations.

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2013-2015

POLLUTANT	STANDARD	YEAR		
		2013	2014	2015
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.151	0.127	0.133
Maximum 8-Hour Concentration (ppm)		0.122	0.105	0.111
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	34	31	36
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	68	52	59
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	2	1	3
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	42	37	39
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	3.0	--
Maximum 8-Hour Concentration (ppm)		1.3	1.2	--
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	--
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	--
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	--
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.082	0.070	0.089
Annual Arithmetic Mean Concentration (ppm)		0.021	0.020	0.018
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m^3)		90	68	96
Number of Samples		61	58	--
Number of Samples Exceeding State Standard	> 50 µg/m^3	19	13	13
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)		43.6	34.9	50.5
Annual Arithmetic Mean (µg/m^3)		12.26	--	11.0
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	1	0	3

-- = data not available from SCAQMD or ARB

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below (14):

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO2): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4). Collectively, these pollutants are referred to as sulfur oxides (SOX).
- Nitrogen Oxides (Oxides of Nitrogen, or NOx): Nitrogen oxides (NOx) consist of nitric oxide (NO), nitrogen dioxide (NO2) and nitrous oxide (N2O) and are formed when nitrogen (N2) combines with oxygen (O2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO2 is the most abundant in the atmosphere. As ambient concentrations of NO2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO2 than those indicated by regional monitors.
- Ozone (O3): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX) undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM10 (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.
- PM2.5 (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO2 release from power plants and industrial facilities and nitrates that are formed from NOX release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM2.5 is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have

different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- Reactive Organic Gases (ROG): Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- Lead (Pb): Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with

diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

Sulfur Dioxide

A few minutes of exposure to low levels of SO2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, PM2.5, and lead (10). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the

federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (15). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and lead. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. Table 2-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NOx). NOx is a collective term that includes all forms of nitrogen oxides (NO, NO2, NO3) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (16) (10).

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All basins have been formally designated as attainment or non-attainment for each CAAQS.

Non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;

- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In regards to the NAAQS, the Project region within the SCAB is in nonattainment for ozone (8-hour) and PM2.5. For the CAAQS, the Project region within the SCAB is in nonattainment for ozone (1-hour and 8-hour), PM10, and PM2.5. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (14). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.9.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized at Table 3-1 (24). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
CO	820 lbs/day	N/A
	667 lbs/day	
NOx	144 lbs/day	N/A
	118 lbs/day	
PM_{10}	201 lbs/day	N/A
	196 lbs/day	
$PM_{2.5}$	101 lbs/day	N/A
	98 lbs/day	

Note: lbs/day – pounds per day. Localized Thresholds: CO and NOx emissions are measured at a 25 m distance; PM10 and PM2.5 are measured at a 500 m distance.

3.3 PROJECT-RELATED SOURCES OF POTENTIAL IMPACT

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (18). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Construction Workers Commuting

Construction is expected to commence in January 2018 and will last through February 2019. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[3] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated construction equipment was based CalEEMod 2013.2.2 defaults. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.2 of this analysis. A detailed summary of construction equipment assumptions by phase is provided at Table 3-3.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive

[3] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2013.2, Table 3.4 "OFFROAD Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. It is our understanding the Project site is vacant, thus no demolition is required. Based on consultation with the client, the Project site is expected to balance (will not require soil import/export).

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information CalEEMod model defaults.

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

Construction emissions associated with off-site utility and infrastructure improvements may occur, however at this time, a specific schedule of off-site utility and infrastructure improvements is unknown. However, impacts associated with these expected activities are not expected to exceed the emissions identified for project-related construction activities. As such, no impacts beyond what has already been identified in this report are expected to occur.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2018	01/12/2018	10
Grading	01/13/2018	02/09/2018	20
Building Construction	02/10/2018	12/28/2018	230
Paving	12/29/2018	01/25/2019	20
Architectural Coating	01/26/2019	02/22/2019	20

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Tractors/Loaders/Backhoes	4	8
Grading	Graders	1	8
	Rubber Tired Dozers	1	8
	Tractors/Loaders/Backhoes	2	8
	Excavator	1	8
Building Construction	Tractors/Loaders/Backhoes	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Cranes	1	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coatings	Air Compressors	1	8

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1403 (Asbestos); Rule 1113 (Architectural Coatings) (19); Rule 431.2 (Low Sulfur Fuel) (20); Rule 403 (Fugitive Dust) (21); and Rule 1186 / 1186.1 (Street Sweepers) (22). It should be noted credit for Rule 403 and Rule 1113 have been taken.

The estimated maximum daily construction emissions are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project construction would not exceed the applicable SCAQMD regional thresholds of significance for any criteria pollutant. Therefore, a less than significant impact would occur and no mitigation measures are required.

TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2018	4.35	45.69	37.24	0.05	9.61	6.10
2019	38.76	15.00	15.13	0.02	1.00	0.79
Maximum Daily Emissions	**38.76**	**45.69**	**37.24**	**0.05**	**9.61**	**6.10**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of ROG, NOX, CO, SOX, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in the CalEEMod model. In the case of the commercial/retail uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Commercial Development Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (23). Weekend trip generation rates from The Institute of Transportation Engineers Trip Generation Handbook, 9th Edition were also used in the analysis.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

3.5.4 OPERATIONAL EMISSIONS SUMMARY

The estimated maximum peak operational emissions are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project operations would not exceed the applicable SCAQMD regional thresholds of significance for any criteria pollutant. Therefore, a less than significant impact would occur and no mitigation measures are required.

TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	5.92	3.50E-04	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	0.02	0.22	0.22
Mobile	22.29	38.43	164.15	0.33	21.32	6.02
Total Maximum Daily Emissions	**28.52**	**41.28**	**166.58**	**0.35**	**21.54**	**6.24**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS (2 OF 2)

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	5.29	0.00	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	2.00E-02	0.22	0.22
Mobile	21.68	39.72	168.91	0.31	21.33	6.03
Total Maximum Daily Emissions	**27.28**	**42.57**	**171.34**	**0.33**	**21.55**	**6.25**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLDS (LSTS)

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (24). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4[4]. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (25).

4 The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST is the San Bernardino Valley #1 monitoring station (SRA 22). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter ≤ 10 microns (PM10), and particulate matter ≤ 2.5 microns (PM2.5). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- CalEEMod is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (26) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (27)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Table 3-6 is used to determine the maximum daily disturbed-acreage for purposes of modeling localized emissions. Based on Table 3-6, the proposed Project could actively disturb approximately 1.5 acres per day during site preparation and 1 acre per day during the grading phase of construction.

TABLE 3-6 : MAXIMUM DAILY DISTURBED-ACREAGE (1 OF 2)

Construction Phase	Equipment Type	Equipment	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	0	0.5	8	0
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total acres graded per day during Site Preparation					1.5

TABLE 3-6 : MAXIMUM DAILY DISTURBED-ACREAGE (2 OF 2)

Construction Phase	Equipment Type	Equipment	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Grading	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractors	0	0.5	8	0
	Graders	1	0.5	8	0.5
	Scrapers	0	1	8	0
Total acres graded per day during Grading					1

Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors".

The nearest sensitive receptor, where an individual can remain for 24 hours, is the residential community located approximately 500 meters west of the Project site. Emissions of CO are measured on a 1-hour and 8-hour exposure duration and emissions of NO_2 are measured on a 1-hour exposure duration. Since it is possible for sensitive receptors to be within a 25 meters or less vicinity to the Project site within those exposure durations, a 25 meter receptor distance was utilized to determine the LSTs for emissions of CO and NO_2 (28). Therefore, based on SCAQMD's Final LST Methodology, a 500 meter receptor distance is utilized to determine the LSTs for emissions of PM_{10} and $PM_{2.5}$ and a 25 meter receptor distance is utilized to determine the LSTs for emissions of CO and NO_2.

CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

Since the total acreage disturbed is less than five acres per day for both the site preparation phase and the grading phase, SCAQMD's screening look-up tables are utilized in determining impacts. As previously noted, a 500 meter receptor distance is utilized to determine the LSTs for emissions of PM_{10} and $PM_{2.5}$ and a 25 meter receptor distance is utilized to determine the LSTs for emissions of CO and NO_2.This methodology is consistent with recent recommendations made by SCAQMD planning staff.

Impacts Summary

Table 3-7 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Emissions during construction activity would not exceed SCAQMD's localized significance thresholds for any criteria pollutant. It should be noted that credit for Rule 403 and Rule 1113 have been taken.

TABLE 3-7: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (1 OF 2)

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**45.61**	**36.61**	**9.41**	**6.05**
SCAQMD Localized Threshold	144	820	201	101
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

TABLE 3-7: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (2 OF 2)

On-Site Grading Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**31.07**	**24.00**	**4.28**	**2.90**
SCAQMD Localized Threshold	118	667	196	98
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

The proposed project involves the construction and operation of the following: a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, and 5,440 square feet of fast food with drive-through use. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed.

3.8 COMPARISON TO ANALYSIS IN RENAISSANCE SPECIFIC PLAN EIR

This section summarizes the Project's emissions impacts in this AQIA as compared to the emissions totals and impacts that were identified in the Renaissance Specific Plan EIR.

3.8.1 CONSTRUCTION EMISSIONS

Table 3-8 shows a comparison of the proposed Project's regional construction-source emissions to that previously assumed and analyzed in the Renaissance SP EIR.

As shown, the proposed Project is anticipated to generate significantly fewer emissions per day for emissions of VOCs, NO_x, CO, SO_x, PM10, and PM2.5 as compared to what was previously analyzed in the Renaissance SP EIR. Thus, the construction impacts of the proposed Project would be less than what was disclosed in the Renaissance SP EIR and no new significant impacts would occur.

TABLE 3-8: PROJECT CONSTRUCTION EMISSIONS VS RENAISSANCE SP EIR EMISSIONS

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2010 Approved Renaissance Specific Plan						
Maximum Daily Emissions	**603**	**657**	**1,006**	**2**	**470**	**118**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**
Proposed Project						
2018	4.35	45.69	37.24	0.05	9.61	6.10
2019	38.76	15.00	15.13	0.02	1.00	0.79
Maximum Daily Emissions	**38.76**	**45.69**	**37.24**	**0.05**	**9.61**	**6.10**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Net Change	**-564.24**	**-611.31**	**-968.76**	**-1.95**	**-460.39**	**-111.90**
New Significant Impacts?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.8.2 OPERATIONAL EMISSIONS

Table 3-9 shows a comparison of the proposed Project's regional operational-source emissions to that previously assumed and analyzed in the Renaissance SP EIR.

As shown, the proposed Project is anticipated to generate significantly fewer emissions per day for emissions of VOCs, NO_x, CO, SO_x, PM10, and PM2.5 as compared to what was previously analyzed in the Renaissance SP DEIR. Thus, the operational impacts of the proposed Project would be less than what was disclosed in the Renaissance SP EIR and no new significant impacts would occur.

TABLE 3-9: PROJECT BUILD-OUT OPERATIONAL EMISSIONS VS RENAISSANCE SP EIR EMISSIONS

Operational Activities- Peak Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2010 Approved Renaissance Specific Plan						
Peak Operational Emissions	1,012	4,881	6,137	23	2,320	522
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**
Proposed Project						
Area Source	5.92	0.00	0.04	0.00	1.40E-04	1.40E-04
Energy Source	0.31	2.85	2.39	2.00E-02	0.22	0.22
Mobile (Trucks)	22.29	39.72	168.91	0.31	21.33	6.03
Total Maximum Daily Emissions	**28.52**	**42.57**	**171.34**	**0.33**	**21.55**	**6.25**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**
Net Change	**-983.48**	**-4,838.43**	**-5,965.66**	**-22.67**	**-2,298.45**	**-515.75**
New Significant Impacts?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.9 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (30).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-10.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (30). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 2-3). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (31).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-11. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[5] At buildout of the Project, the highest average daily trips on a segment of road would be 36,100 daily trips on Alder Avenue south of Walnut Avenue which is lower than the highest daily traffic volumes generated at the busiest intersection in the CO "hot spot" analysis (32).

The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-12. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

5 Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

TABLE 3-10: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (parts per million)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

Source: 2003 AQMP
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

TABLE 3-11: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vehicles per hour)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP
Vph-Vehicles Per Hour

TABLE 3-12: PEAK TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Sierra Ave & Highland Ave	1,224/1,348	1,453/1,289	856/622	549/362	4,082/3,619
Alder Ave & SR-210 EB Ramps	1,220/1,685	787/956	1,107/795	0/0	3,114/3,436
Alder Ave & Renaissance Pkwy	1,090/1,659	1,346/1,225	453/351	276/217	3,165/3,451
Alder Ave & Baseline Ave	760/603	843/908	680/610	717/750	3,000/2,871

Source: Commercial Development Traffic Impact Analysis (Urban Crossroads, Inc.) 2016

3.10 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (33) (14). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development.

In June 2016, the AQMD released the draft 2016 AQMP for public review. The 2016 draft AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (34). As the draft 2016 AQMP has not been formally adopted by the AQMD, the Project's consistency with the AQMP will be determined using the 2012 AQMP, discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (35). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs were exceeded. As evaluated as part of the Project LST analysis (previously presented), the Project's localized construction-source emissions would not exceed applicable LSTs, and a less than significant impact is expected.

Operational Impacts

The Project regional analysis demonstrates that Project operational-source emissions would not exceed applicable thresholds, and would therefore not result in or cause violations of the CAAQS and NAAQS.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the City of Rialto General Plan is considered to be consistent with the AQMP.

Construction Impacts

The proposed Project would not exceed the applicable SCAQMD regional thresholds for any criteria pollutant during construction activity. However, the Project is a part of the Renaissance SP, which disclosed a potential to conflict with or obstruct implementation of the AQMP. Consistent with the findings of the Renaissance SP EIR, the Project would have the potential to conflict with the AQMP.

Operational Impacts

The proposed Project would not exceed the applicable SCAQMD regional thresholds for any criteria pollutant during operational activity. However, the Project is a part of the Renaissance SP, which disclosed a potential to conflict with or obstruct implementation of the AQMP. Consistent with the findings of the Renaissance SP EIR, the Project would have the potential to conflict with the AQMP.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. Notwithstanding, consistent with the Renaissance SP EIR, the Project has the potential to conflict with or obstruct implementation of the AQMP. Therefore, the Project is determined to have a potential impact with respect to AQMP consistency.

3.11 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities,

rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be subjected to a significant air quality impact during Project construction.

The proposed Project would not result in a CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.9. Thus a less than significant impact to sensitive receptors during operational activity is expected.

3.12 ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous commercial refuse. Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (2).

3.13 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM_{10}, $PM_{2.5}$, and lead.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (37). In this report the AQMD clearly states (Page D-3):

"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CRITERION 1; REGIONAL EMISSIONS ANALYSIS

Construction Impacts

Project construction-source air pollutant emissions would not exceed the SCAQMD regional thresholds for any criteria pollutant. Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis. Notwithstanding, the Renaissance SP EIR reported VOC, NOx, CO, PM10 and PM2.5 exceedances over the SCAQMD regional thresholds for construction activity. As such, consistent with the findings of the Renaissance SP EIR, the Project would result in a cumulatively considerable significant impact.

Operational Impacts

Project operational-source emissions would not exceed applicable SCAQMD regional thresholds. Notwithstanding, the Renaissance SP EIR reported VOC, NOx, CO, PM10 and PM2.5 exceedances over the SCAQMD regional thresholds for operational activity. As such, consistent with the findings of the Renaissance SP EIR, the Project would result in a cumulatively considerable significant impact.

CRITERION 2; LOCAL EMISSIONS ANALYSIS UTILIZING LIST APPROACH

A list approach is used, in accordance with Section 15130(b) of the CEQA Guidelines, which states the following:

> *The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.*

The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects.

The cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. As shown on Table 3-13, the cumulative project list includes known and foreseeable projects that are anticipated to contribute emissions to the air basin in the vicinity of the Project.

Cumulative projects could contribute to an existing or projected air quality exceedance because the Basin is currently nonattainment for ozone, PM10, and PM2.5. The Renaissance SP EIR determined VOCs, NOx, PM10, CO and PM2.5 regional threshold exceedances and would therefore, result in a cumulatively significant impact. Consistent to the Renaissance SP EIR, Project-related contributions to cumulative impacts are determined to be cumulatively considerable, significant and unavoidable.

TABLE 3-13: CUMULATIVE IMPACTS

ID	Project/Location	Description Land Use / Quantity
City of Rialto		
1	Golden Springs, LLC	630 TSF Warehousing
2	I-210 Logistics III, LLC	742 TSF Warehousing
3	I-210 Logistics II, LLC	763 TSF Warehousing
4	Niagara Bottling, LLC	596 TSF Warehousing
5	Medline Industries, LLC	1090 TSF Warehousing
6	CapRock I	430 TSF Warehousing
7	CapRock II	609 TSF Warehousing
8	Shaw Development Company	176 TSF Warehousing
9	Lytle Creek SP	6,300 SFDU
10	Emaar Enterprise	20 SFDU
11	B&B Plastics, Inc.	151 TSF Warehousing
12	Pusan Pipe, Inc.	39 TSF Manufacturing
City of Fontana		
13	Gabriella	552 MFDU's, 25,819 TSF Commercial
14	Citrus / Walnut Residential	84 SFDU's
15	Oleander / Walnut Residential	25 SFDU's
16	Citrus / Miller Residential	14 SFDU's
17	Juniper / Walnut Residential	74 SFDU's
18	Mango / Baseline Residential	31 SFDU's
19	Mango / Miller Residential	15 SFDU's
20	Palmetto / Elaine Residential	15 SFDU's
21	Summit at Rosena SP	600 SFDU's
22	Sierra Crest (Phase 1 - 187 units; Phase 2 - 182 units)	369 SFDU's
23	The Arboretum SP	600 SFDU's
24	Fontana Promenade	391 SFDU, 55 MFDU. 166.000 TSF Retail
25	Sierra Commerce Center Phase 1	742.142 TSF Warehousing
26	Sierra Commerce Center Phase 2	746.300 TSF Warehousing
27	Highland Village	44.430 TSF Retail, 12.000 TSF Restaurants, 4.948 TSF Fast Food and 25.000 TSF Medical Office
28	Walmart Fontana (N)	193.303 TSF Walmart, 16.25 TSF Restaurant, 11.35 TSF Retail, 9.4 TSF Fast Food and 4.08 TSF Gas Station

ID	Project/Location	Description Land Use / Quantity
29	Ventana Specific Plan	504 SFDU, 338 MFDU, 215.570 TSF Retail, 362.930 TSF Office/Light Industrial/ Manufacturing
30	Citrus Heights North Specific Plan	499 SFDU
31	Westgate Specific Plan	188.235 SF Retail, 2417.403 TSF Office, 1637.221 TSF Industrial
32	Sierra Lakes Commerce Center	597.818 TSF Warehousing

SFDU= Single Family Dwelling Units; MFDU = Multi-Family Dwelling Units; TSF = Thousand Square Feet
RM=Rooms; VFP=Vehicle Fueling Positions

4 FINDINGS & CONCLUSIONS

Pursuant to CEQA § 15164 (a) the lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in §15162 calling for preparation of a subsequent EIR have occurred. More specifically, §15162 (a)(3)(B) states that no subsequent EIR shall be prepared for the project unless significant effects previously examined will be substantially more severe than shown in the previous EIR. A significant VOC, NOx, CO, PM10, and PM2.5 construction impact and significant VOC, NOx, CO, PM10, and PM2.5 operational impact was previously identified and disclosed in the previously analyzed Renaissance SP DEIR (1).

4.1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

Project construction-source emissions would not exceed the numerical regional thresholds of significance established by the SCAQMD for any criteria pollutants. It should be noted that BACMs are not mitigation as they are standard regulatory requirements. Thus, a less than significant impact would occur for Project-related construction-source and no mitigation measures are required. As such, the overall construction impacts of the proposed Project would be less than what was disclosed in the Renaissance SP DEIR and no new impacts would occur.

LOCALIZED IMPACTS

Project construction-source emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant. Therefore, a less than significant impact would occur.

Project construction-source emissions would be consistent with the applicable AQMP.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. There are no anticipated Project construction-source emissions. Therefore, potential construction-source odor impacts are considered less than significant.

4.2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required. As such, the overall operational impacts of the proposed Project would be less than what was disclosed in the Renaissance SP DEIR and no new impacts would occur.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations.

Project operational-source emissions would be consistent with the applicable AQMP.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous residential refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (38). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Commercial Development Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

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University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

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Area Designations
for
National Ambient Air Quality Standards

CARBON MONOXIDE

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

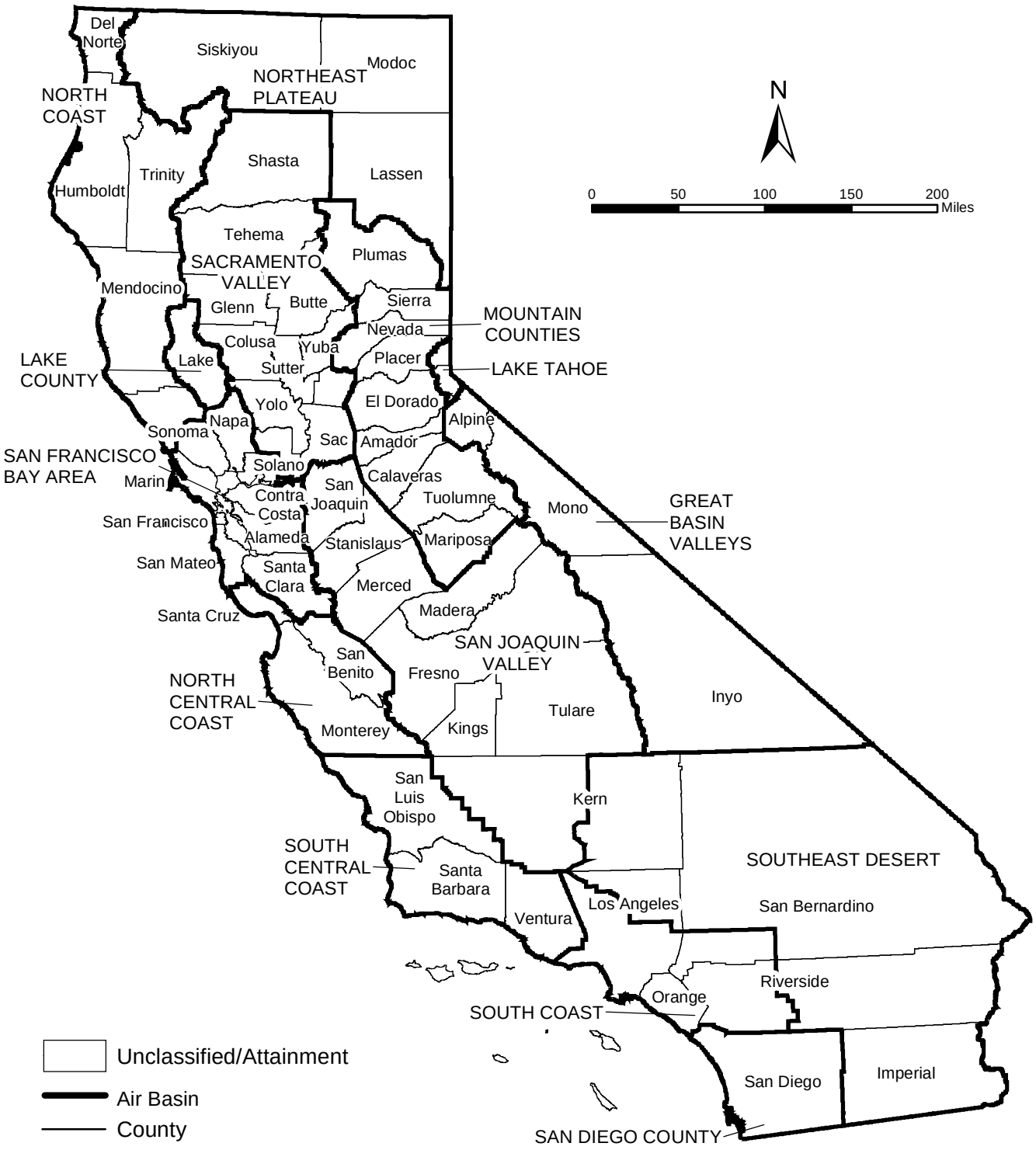
Area Designations for National Ambient Air Quality Standards

LEAD

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

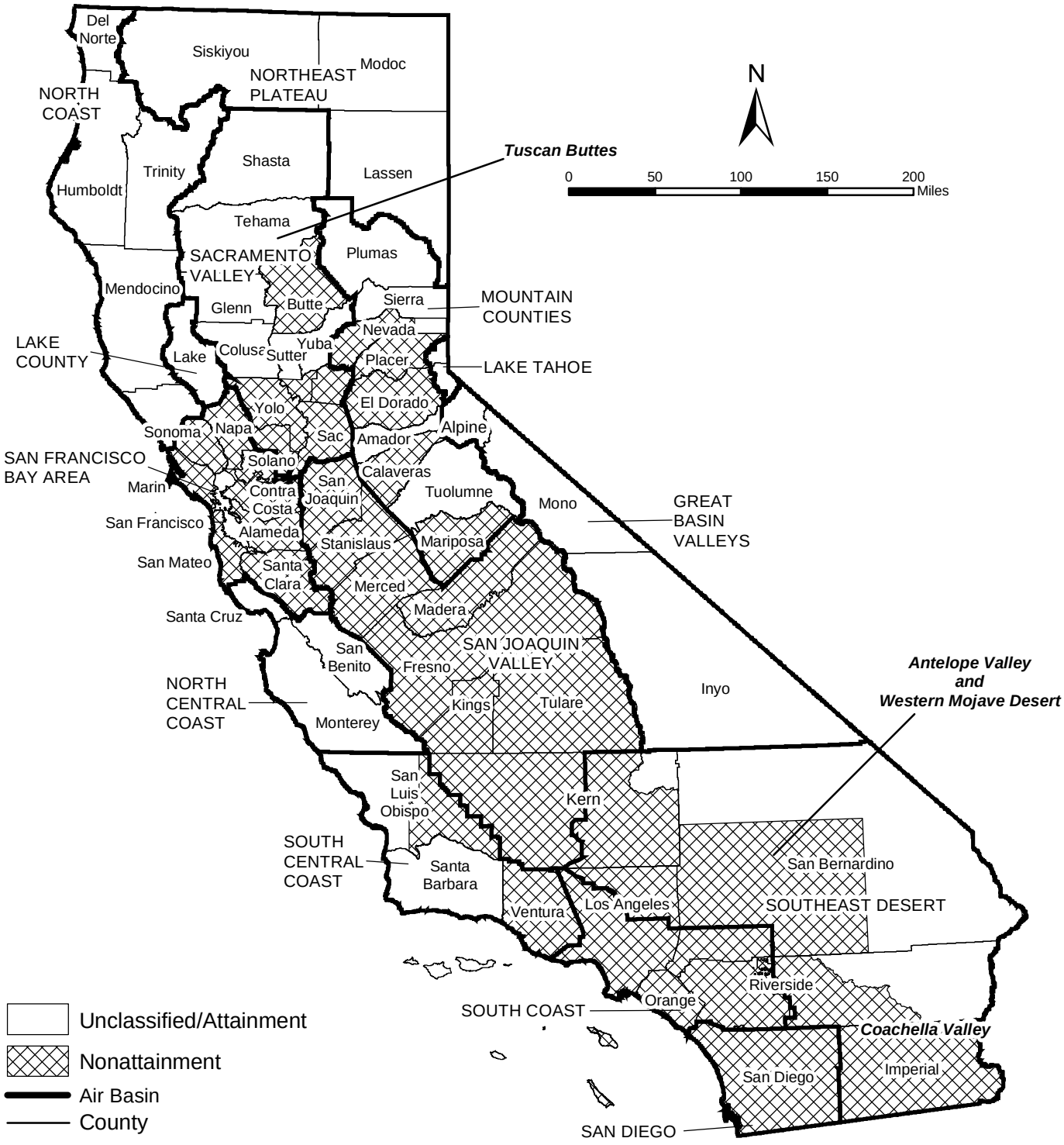
NITROGEN DIOXIDE



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

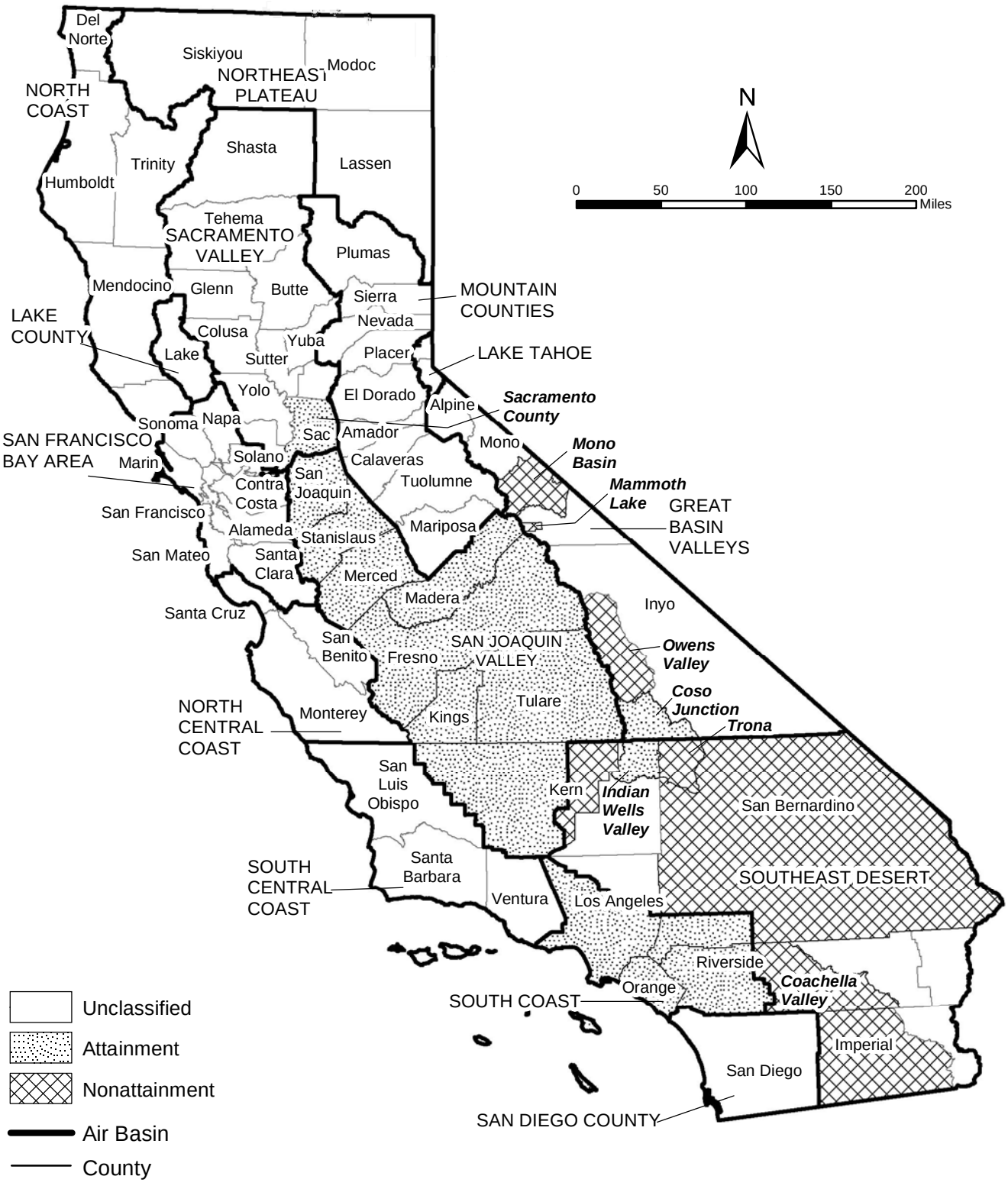
8-HOUR OZONE



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

PM10



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

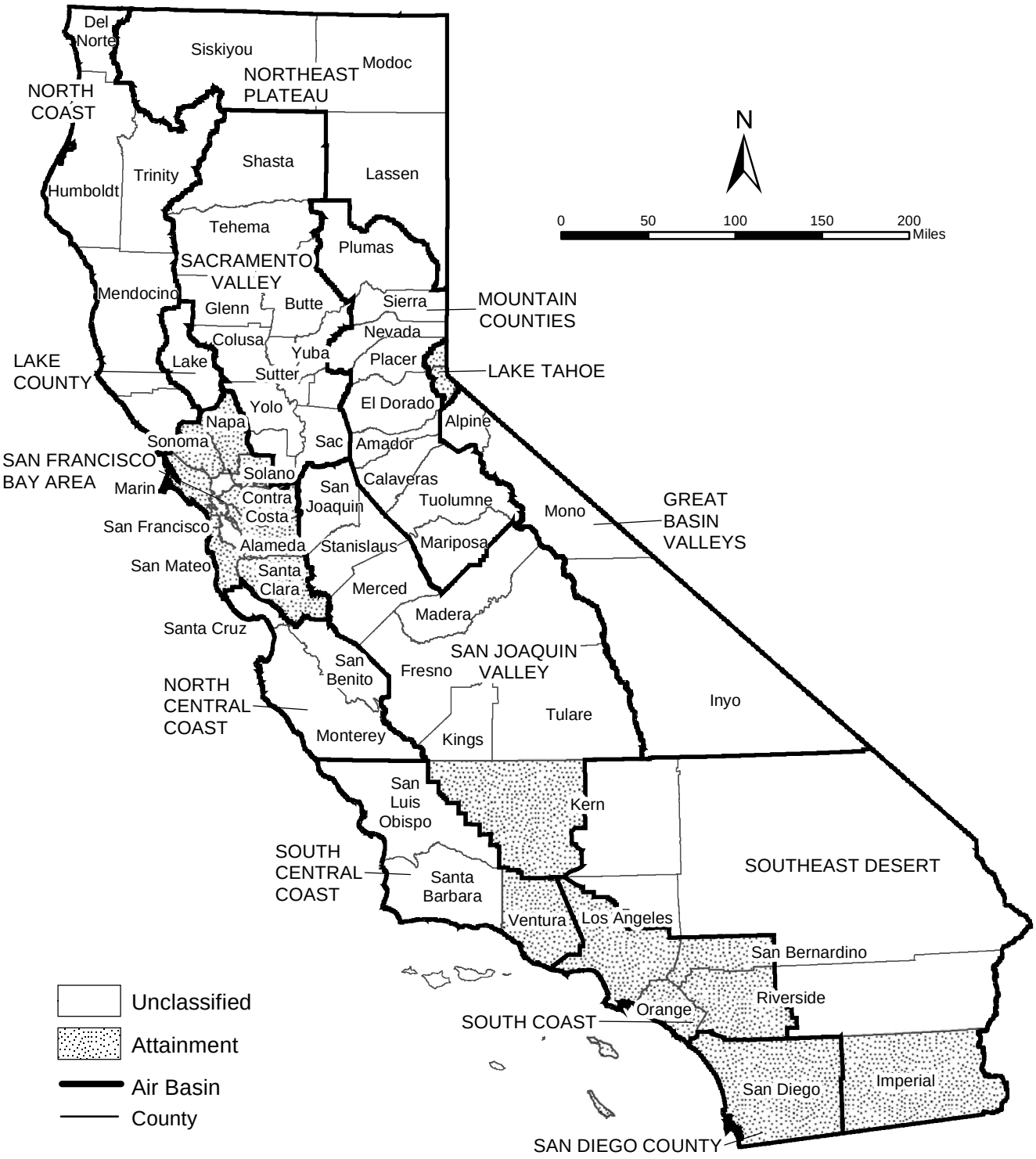
Area Designations
for
National Ambient Air Quality Standards

PM2.5

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

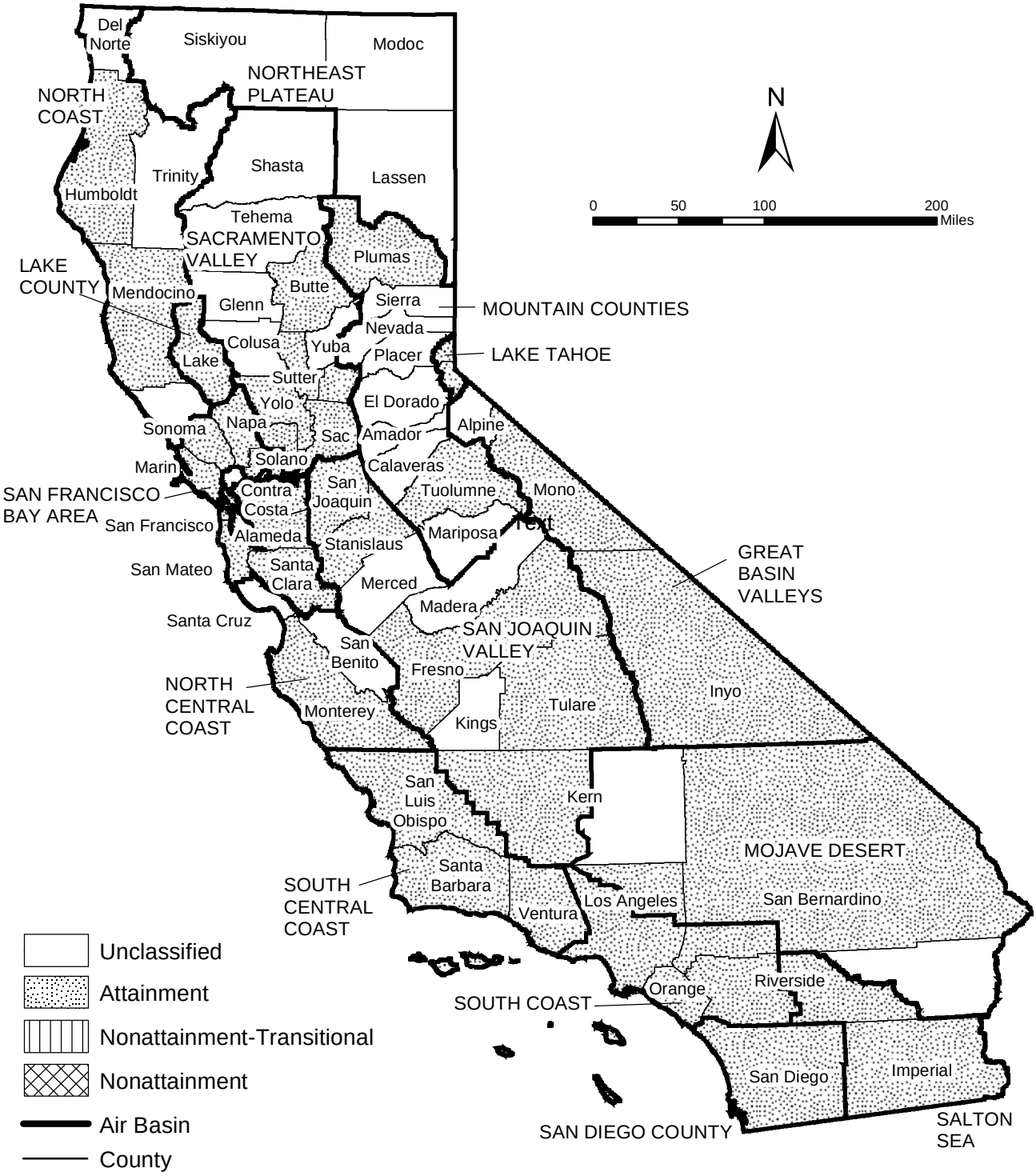
SULFUR DIOXIDE



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
State Ambient Air Quality Standards

CARBON MONOXIDE



Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations
for
State Ambient Air Quality Standards

LEAD

Source Date:
December 2015
Air Quality Planning Branch, AQPSD

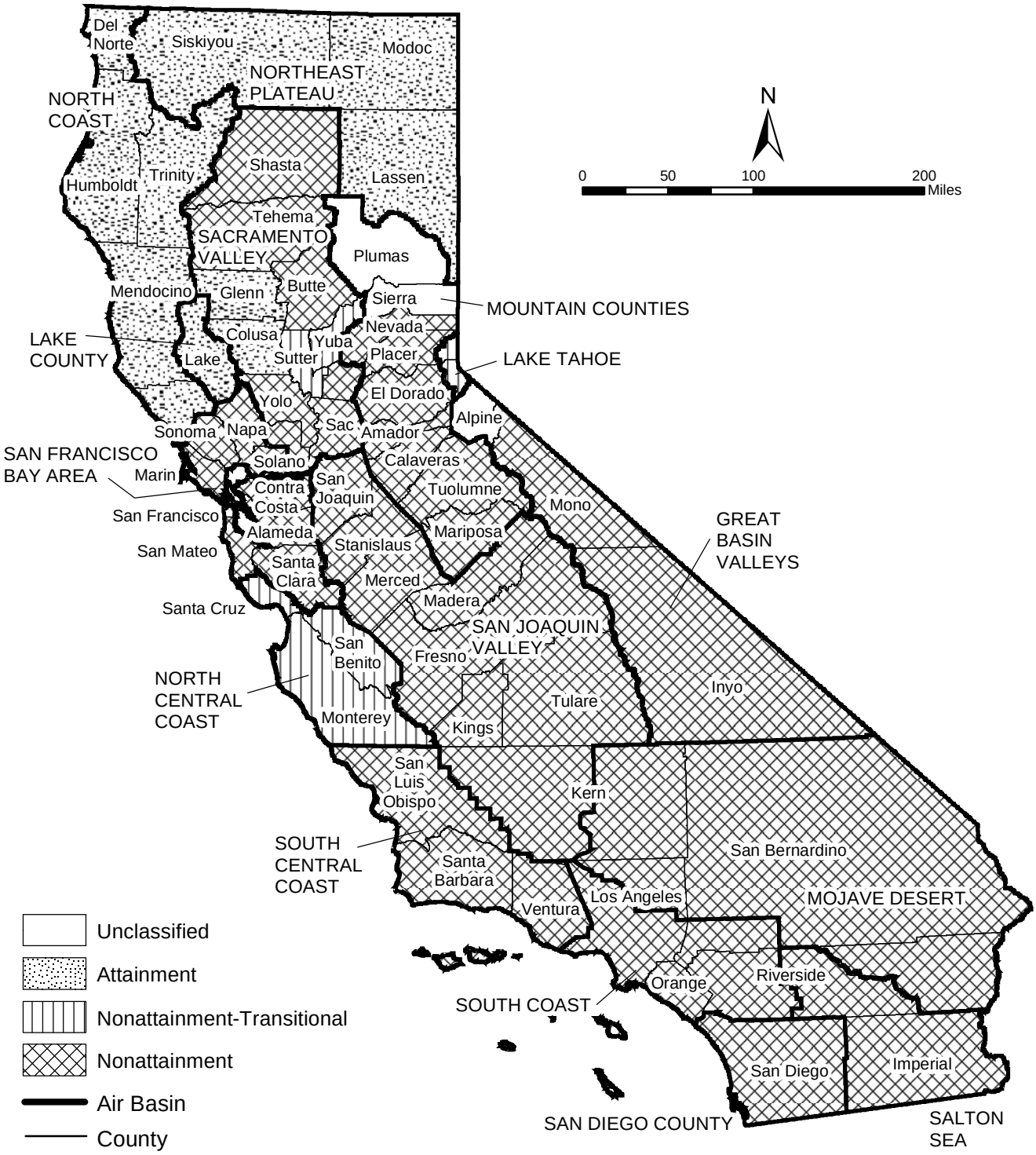
Area Designations
for
State Ambient Air Quality Standards

NITROGEN DIOXIDE

Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations
for
State Ambient Air Quality Standards

OZONE



Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations
for
State Ambient Air Quality Standards

PM10

Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations
for
State Ambient Air Quality Standards

PM2.5

Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations
for
State Ambient Air Quality Standards

SULFUR DIOXIDE

Source Date:
December 2015
Air Quality Planning Branch, AQPSD

APPENDIX 3.2:

CALEEMOD EMISSIONS MODEL OUTPUTS

Commercial Development-Construction

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	479.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Based on a 2019 opening year

Off-road Equipment -

Off-road Equipment - Based on 8 hour work day

Off-road Equipment -

Off-road Equipment - Based on 8 hour workday

On-road Fugitive Dust -

Vehicle Trips - Construction run only

Architectural Coating - Based on updated Rule 1113- Default coatings 50 g/L low VOC levels

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConsumerProducts	ROG_EF	1.98E-05	1E-07

tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	6.13	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
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tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	7.91	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	58.04	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00

tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	479.9
tblProjectCharacteristics	OperationalYear	2014	2019
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	11.52	0.00
tblSolidWaste	SolidWasteGenerationRate	62.66	0.00
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tblSolidWaste	SolidWasteGenerationRate	54.75	0.00
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tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
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tblWater	IndoorWaterUseRate	2,536,677.00	0.00
tblWater	OutdoorWaterUseRate	102,547.82	0.00
tblWater	OutdoorWaterUseRate	19,374.49	0.00
tblWater	OutdoorWaterUseRate	105,397.24	0.00
tblWater	OutdoorWaterUseRate	87,185.22	0.00
tblWater	OutdoorWaterUseRate	281,853.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.3536	45.6849	37.2413	0.0530	18.2675	2.3668	20.6343	9.9840	2.1775	12.1615	0.0000	4,849.4792	4,849.4792	1.2354	0.0000	4,875.4215
2019	38.7566	14.9932	15.1261	0.0244	0.2459	0.8106	0.9782	0.0652	0.7457	0.7902	0.0000	2,364.0991	2,364.0991	0.7057	0.0000	2,378.9186
Total	**43.1102**	**60.6781**	**52.3674**	**0.0774**	**18.5134**	**3.1774**	**21.6125**	**10.0493**	**2.9232**	**12.9517**	**0.0000**	**7,213.5783**	**7,213.5783**	**1.9410**	**0.0000**	**7,254.3400**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.3536	45.6849	37.2413	0.0530	7.2470	2.3668	9.6139	3.9263	2.1775	6.1038	0.0000	4,849.4792	4,849.4792	1.2354	0.0000	4,875.4215
2019	38.7566	14.9932	15.1261	0.0244	0.2459	0.8106	0.9782	0.0652	0.7457	0.7902	0.0000	2,364.0991	2,364.0991	0.7057	0.0000	2,378.9186
Total	**43.1102**	**60.6781**	**52.3674**	**0.0774**	**7.4930**	**3.1774**	**10.5921**	**3.9915**	**2.9232**	**6.8940**	**0.0000**	**7,213.5783**	**7,213.5783**	**1.9410**	**0.0000**	**7,254.3400**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.53**	**0.00**	**50.99**	**60.28**	**0.00**	**46.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**	**0.0000**	**0.0847**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**	**0.0000**	**0.0847**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/12/2018	5	10	
2	Grading	Grading	1/13/2018	2/9/2018	5	20	
3	Building Construction	Building Construction	2/10/2018	12/28/2018	5	230	
4	Paving	Paving	12/29/2018	1/25/2019	5	20	
5	Architectural Coating	Architectural Coating	1/26/2019	2/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 248,110; Non-Residential Outdoor: 82,703 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.2921	45.6088	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762		3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**45.6088**	**36.2346**	**0.0391**	**18.0663**	**2.3654**	**20.4317**	**9.9307**	**2.1762**	**12.1069**		**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0615	0.0762	1.0067	2.5300e-003	0.2012	1.4000e-003	0.2026	0.0534	1.3000e-003	0.0547		194.3256	194.3256	8.8400e-003		194.5113
Total	**0.0615**	**0.0762**	**1.0067**	**2.5300e-003**	**0.2012**	**1.4000e-003**	**0.2026**	**0.0534**	**1.3000e-003**	**0.0547**		**194.3256**	**194.3256**	**8.8400e-003**		**194.5113**

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.2921	45.6088	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762	0.0000	3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**45.6088**	**36.2346**	**0.0391**	**7.0458**	**2.3654**	**9.4113**	**3.8730**	**2.1762**	**6.0491**	**0.0000**	**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0615	0.0762	1.0067	2.5300e-003	0.2012	1.4000e-003	0.2026	0.0534	1.3000e-003	0.0547		194.3256	194.3256	8.8400e-003		194.5113
Total	**0.0615**	**0.0762**	**1.0067**	**2.5300e-003**	**0.2012**	**1.4000e-003**	**0.2026**	**0.0534**	**1.3000e-003**	**0.0547**		**194.3256**	**194.3256**	**8.8400e-003**		**194.5113**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.0028	31.0702	23.9988	0.0297		1.7201	1.7201		1.5825	1.5825		2,993.1005	2,993.1005	0.9318		3,012.6681
Total	**3.0028**	**31.0702**	**23.9988**	**0.0297**	**6.5523**	**1.7201**	**8.2724**	**3.3675**	**1.5825**	**4.9500**		**2,993.1005**	**2,993.1005**	**0.9318**		**3,012.6681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	**0.0512**	**0.0635**	**0.8389**	**2.1100e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**161.9380**	**161.9380**	**7.3700e-003**		**162.0927**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	3.0028	31.0702	23.9988	0.0297		1.7201	1.7201		1.5825	1.5825	0.0000	2,993.1005	2,993.1005	0.9318		3,012.6681
Total	**3.0028**	**31.0702**	**23.9988**	**0.0297**	**2.5554**	**1.7201**	**4.2755**	**1.3133**	**1.5825**	**2.8958**	**0.0000**	**2,993.1005**	**2,993.1005**	**0.9318**		**3,012.6681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	**0.0512**	**0.0635**	**0.8389**	**2.1100e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**161.9380**	**161.9380**	**7.3700e-003**		**162.0927**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3043	3.0582	3.7315	9.1000e-003	0.2639	0.0510	0.3148	0.0753	0.0469	0.1222		885.2918	885.2918	6.3300e-003		885.4247
Worker	0.3687	0.4570	6.0404	0.0152	1.2072	8.4200e-003	1.2156	0.3202	7.7900e-003	0.3279		1,165.9536	1,165.9536	0.0531		1,167.0676
Total	**0.6731**	**3.5151**	**9.7719**	**0.0243**	**1.4710**	**0.0594**	**1.5304**	**0.3955**	**0.0547**	**0.4501**		**2,051.2454**	**2,051.2454**	**0.0594**		**2,052.4923**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3043	3.0582	3.7315	9.1000e-003	0.2639	0.0510	0.3148	0.0753	0.0469	0.1222		885.2918	885.2918	6.3300e-003		885.4247
Worker	0.3687	0.4570	6.0404	0.0152	1.2072	8.4200e-003	1.2156	0.3202	7.7900e-003	0.3279		1,165.9536	1,165.9536	0.0531		1,167.0676
Total	**0.6731**	**3.5151**	**9.7719**	**0.0243**	**1.4710**	**0.0594**	**1.5304**	**0.3955**	**0.0547**	**0.4501**		**2,051.2454**	**2,051.2454**	**0.0594**		**2,052.4923**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9009**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	**0.0512**	**0.0635**	**0.8389**	**2.1100e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**161.9380**	**161.9380**	**7.3700e-003**		**162.0927**

3.5 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9009**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	**0.0512**	**0.0635**	**0.8389**	**2.1100e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**161.9380**	**161.9380**	**7.3700e-003**		**162.0927**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7154**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0578	0.7609	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		155.1260	155.1260	6.7900e-003		155.2686
Total	**0.0466**	**0.0578**	**0.7609**	**2.1000e-003**	**0.1677**	**1.1400e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**155.1260**	**155.1260**	**6.7900e-003**		**155.2686**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7154**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0578	0.7609	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		155.1260	155.1260	6.7900e-003		155.2686
Total	**0.0466**	**0.0578**	**0.7609**	**2.1000e-003**	**0.1677**	**1.1400e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**155.1260**	**155.1260**	**6.7900e-003**		**155.2686**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.3330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
Total	**38.6882**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**		**375.2641**	**375.2641**	**0.0317**		**375.9297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0684	0.0848	1.1160	3.0700e-003	0.2459	1.6700e-003	0.2476	0.0652	1.5500e-003	0.0668		227.5181	227.5181	9.9600e-003		227.7273
Total	**0.0684**	**0.0848**	**1.1160**	**3.0700e-003**	**0.2459**	**1.6700e-003**	**0.2476**	**0.0652**	**1.5500e-003**	**0.0668**		**227.5181**	**227.5181**	**9.9600e-003**		**227.7273**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.3330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
Total	**38.6882**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**	**0.0000**	**375.2641**	**375.2641**	**0.0317**		**375.9297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0684	0.0848	1.1160	3.0700e-003	0.2459	1.6700e-003	0.2476	0.0652	1.5500e-003	0.0668		227.5181	227.5181	9.9600e-003		227.7273
Total	**0.0684**	**0.0848**	**1.1160**	**3.0700e-003**	**0.2459**	**1.6700e-003**	**0.2476**	**0.0652**	**1.5500e-003**	**0.0668**		**227.5181**	**227.5181**	**9.9600e-003**		**227.7273**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Mitigated	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Commercial Development-Construction

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	479.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Based on a 2019 opening year

Off-road Equipment -

Off-road Equipment - Based on 8 hour work day

Off-road Equipment -

Off-road Equipment - Based on 8 hour workday

On-road Fugitive Dust -

Vehicle Trips - Construction run only

Architectural Coating - Based on updated Rule 1113- Default coatings 50 g/L low VOC levels

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConsumerProducts	ROG_EF	1.98E-05	1E-07

tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	6.13	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	7.91	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	58.04	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00

tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	479.9
tblProjectCharacteristics	OperationalYear	2014	2019
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	11.52	0.00
tblSolidWaste	SolidWasteGenerationRate	62.66	0.00
tblSolidWaste	SolidWasteGenerationRate	53.55	0.00
tblSolidWaste	SolidWasteGenerationRate	54.75	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD2	9.0560e-003	0.00
tblVehicleEF	LHD2	9.0560e-003	0.00

tblVehicleEF	LHD2	9.0560e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleTrips	ST_TR	204.47	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	166.88	0.00

tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	542.60	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblWater	IndoorWaterUseRate	167,314.87	0.00
tblWater	IndoorWaterUseRate	303,533.71	0.00
tblWater	IndoorWaterUseRate	1,651,223.40	0.00
tblWater	IndoorWaterUseRate	1,365,901.71	0.00
tblWater	IndoorWaterUseRate	2,536,677.00	0.00
tblWater	OutdoorWaterUseRate	102,547.82	0.00
tblWater	OutdoorWaterUseRate	19,374.49	0.00
tblWater	OutdoorWaterUseRate	105,397.24	0.00
tblWater	OutdoorWaterUseRate	87,185.22	0.00
tblWater	OutdoorWaterUseRate	281,853.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.3495	45.6900	37.0903	0.0515	18.2675	2.3668	20.6343	9.9840	2.1775	12.1615	0.0000	4,737.8658	4,737.8658	1.2354	0.0000	4,763.8080
2019	38.7519	14.9970	15.0108	0.0242	0.2459	0.8106	0.9782	0.0652	0.7457	0.7902	0.0000	2,350.2410	2,350.2410	0.7057	0.0000	2,365.0605
Total	**43.1014**	**60.6870**	**52.1011**	**0.0757**	**18.5134**	**3.1774**	**21.6125**	**10.0493**	**2.9232**	**12.9517**	**0.0000**	**7,088.1068**	**7,088.1068**	**1.9410**	**0.0000**	**7,128.8685**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.3495	45.6900	37.0903	0.0515	7.2470	2.3668	9.6139	3.9263	2.1775	6.1038	0.0000	4,737.8658	4,737.8658	1.2354	0.0000	4,763.8080
2019	38.7519	14.9970	15.0108	0.0242	0.2459	0.8106	0.9782	0.0652	0.7457	0.7902	0.0000	2,350.2410	2,350.2410	0.7057	0.0000	2,365.0605
Total	**43.1014**	**60.6870**	**52.1011**	**0.0757**	**7.4930**	**3.1774**	**10.5921**	**3.9915**	**2.9232**	**6.8940**	**0.0000**	**7,088.1068**	**7,088.1068**	**1.9410**	**0.0000**	**7,128.8685**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.53**	**0.00**	**50.99**	**60.28**	**0.00**	**46.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**	**0.0000**	**0.0847**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**	**0.0000**	**0.0847**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/12/2018	5	10	
2	Grading	Grading	1/13/2018	2/9/2018	5	20	
3	Building Construction	Building Construction	2/10/2018	12/28/2018	5	230	
4	Paving	Paving	12/29/2018	1/25/2019	5	20	
5	Architectural Coating	Architectural Coating	1/26/2019	2/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 248,110; Non-Residential Outdoor: 82,703 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.2921	45.6088	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762		3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**45.6088**	**36.2346**	**0.0391**	**18.0663**	**2.3654**	**20.4317**	**9.9307**	**2.1762**	**12.1069**		**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0812	0.8557	2.3000e-003	0.2012	1.4000e-003	0.2026	0.0534	1.3000e-003	0.0547		176.9671	176.9671	8.8400e-003		177.1528
Total	**0.0573**	**0.0812**	**0.8557**	**2.3000e-003**	**0.2012**	**1.4000e-003**	**0.2026**	**0.0534**	**1.3000e-003**	**0.0547**		**176.9671**	**176.9671**	**8.8400e-003**		**177.1528**

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.2921	45.6088	36.2346	0.0391		2.3654	2.3654		2.1762	2.1762	0.0000	3,939.7731	3,939.7731	1.2265		3,965.5297
Total	**4.2921**	**45.6088**	**36.2346**	**0.0391**	**7.0458**	**2.3654**	**9.4113**	**3.8730**	**2.1762**	**6.0491**	**0.0000**	**3,939.7731**	**3,939.7731**	**1.2265**		**3,965.5297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0812	0.8557	2.3000e-003	0.2012	1.4000e-003	0.2026	0.0534	1.3000e-003	0.0547		176.9671	176.9671	8.8400e-003		177.1528
Total	**0.0573**	**0.0812**	**0.8557**	**2.3000e-003**	**0.2012**	**1.4000e-003**	**0.2026**	**0.0534**	**1.3000e-003**	**0.0547**		**176.9671**	**176.9671**	**8.8400e-003**		**177.1528**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.0028	31.0702	23.9988	0.0297		1.7201	1.7201		1.5825	1.5825		2,993.1005	2,993.1005	0.9318		3,012.6681
Total	**3.0028**	**31.0702**	**23.9988**	**0.0297**	**6.5523**	**1.7201**	**8.2724**	**3.3675**	**1.5825**	**4.9500**		**2,993.1005**	**2,993.1005**	**0.9318**		**3,012.6681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	**0.0478**	**0.0677**	**0.7131**	**1.9200e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**147.4726**	**147.4726**	**7.3700e-003**		**147.6273**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	3.0028	31.0702	23.9988	0.0297		1.7201	1.7201		1.5825	1.5825	0.0000	2,993.1005	2,993.1005	0.9318		3,012.6681
Total	**3.0028**	**31.0702**	**23.9988**	**0.0297**	**2.5554**	**1.7201**	**4.2755**	**1.3133**	**1.5825**	**2.8958**	**0.0000**	**2,993.1005**	**2,993.1005**	**0.9318**		**3,012.6681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	**0.0478**	**0.0677**	**0.7131**	**1.9200e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**147.4726**	**147.4726**	**7.3700e-003**		**147.6273**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3231	3.1367	4.3540	9.0300e-003	0.2639	0.0514	0.3153	0.0753	0.0473	0.1226		877.8292	877.8292	6.5300e-003		877.9664
Worker	0.3439	0.4874	5.1340	0.0138	1.2072	8.4200e-003	1.2156	0.3202	7.7900e-003	0.3279		1,061.8028	1,061.8028	0.0531		1,062.9167
Total	**0.6670**	**3.6241**	**9.4880**	**0.0228**	**1.4710**	**0.0598**	**1.5309**	**0.3955**	**0.0551**	**0.4506**		**1,939.6320**	**1,939.6320**	**0.0596**		**1,940.8831**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3231	3.1367	4.3540	9.0300e-003	0.2639	0.0514	0.3153	0.0753	0.0473	0.1226		877.8292	877.8292	6.5300e-003		877.9664
Worker	0.3439	0.4874	5.1340	0.0138	1.2072	8.4200e-003	1.2156	0.3202	7.7900e-003	0.3279		1,061.8028	1,061.8028	0.0531		1,062.9167
Total	**0.6670**	**3.6241**	**9.4880**	**0.0228**	**1.4710**	**0.0598**	**1.5309**	**0.3955**	**0.0551**	**0.4506**		**1,939.6320**	**1,939.6320**	**0.0596**		**1,940.8831**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9009**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	**0.0478**	**0.0677**	**0.7131**	**1.9200e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**147.4726**	**147.4726**	**7.3700e-003**		**147.6273**

3.5 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9009**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	**0.0478**	**0.0677**	**0.7131**	**1.9200e-003**	**0.1677**	**1.1700e-003**	**0.1688**	**0.0445**	**1.0800e-003**	**0.0456**		**147.4726**	**147.4726**	**7.3700e-003**		**147.6273**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7154**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0434	0.0617	0.6457	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		141.2679	141.2679	6.7900e-003		141.4105
Total	**0.0434**	**0.0617**	**0.6457**	**1.9100e-003**	**0.1677**	**1.1400e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**141.2679**	**141.2679**	**6.7900e-003**		**141.4105**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.2895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7154**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0434	0.0617	0.6457	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		141.2679	141.2679	6.7900e-003		141.4105
Total	**0.0434**	**0.0617**	**0.6457**	**1.9100e-003**	**0.1677**	**1.1400e-003**	**0.1688**	**0.0445**	**1.0600e-003**	**0.0455**		**141.2679**	**141.2679**	**6.7900e-003**		**141.4105**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.3330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
Total	**38.6882**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**		**375.2641**	**375.2641**	**0.0317**		**375.9297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0637	0.0904	0.9470	2.8000e-003	0.2459	1.6700e-003	0.2476	0.0652	1.5500e-003	0.0668		207.1929	207.1929	9.9600e-003		207.4021
Total	**0.0637**	**0.0904**	**0.9470**	**2.8000e-003**	**0.2459**	**1.6700e-003**	**0.2476**	**0.0652**	**1.5500e-003**	**0.0668**		**207.1929**	**207.1929**	**9.9600e-003**		**207.4021**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.3330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
Total	**38.6882**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**	**0.0000**	**375.2641**	**375.2641**	**0.0317**		**375.9297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0637	0.0904	0.9470	2.8000e-003	0.2459	1.6700e-003	0.2476	0.0652	1.5500e-003	0.0668		207.1929	207.1929	9.9600e-003		207.4021
Total	**0.0637**	**0.0904**	**0.9470**	**2.8000e-003**	**0.2459**	**1.6700e-003**	**0.2476**	**0.0652**	**1.5500e-003**	**0.0668**		**207.1929**	**207.1929**	**9.9600e-003**		**207.4021**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Mitigated	0.0292	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**0.0292**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Commercial Development-Operation

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	479.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Operation run only

Off-road Equipment - Operation run only

On-road Fugitive Dust - Operation run only

Vehicle Trips - Trip rates based on ITE Trip Generation Handbook

Area Coating - Based on updated Rule 1113-Default coatings 50 g/L low VOC levels

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	7.91	6.19
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	58.04	48.29
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00

tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	479.9
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	ST_TR	204.47	152.84
tblVehicleTrips	SU_TR	166.88	152.84
tblVehicleTrips	WD_TR	542.60	152.84

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.9242	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
Mobile	22.2940	38.4333	164.1520	0.3339	20.8221	0.5026	21.3247	5.5610	0.4633	6.0244		26,782.6249	26,782.6249	0.9679		26,802.9497
Total	**28.5315**	**41.2828**	**166.5831**	**0.3510**	**20.8221**	**0.7193**	**21.5414**	**5.5610**	**0.6800**	**6.2411**		**30,201.7560**	**30,201.7560**	**1.0336**	**0.0627**	**30,242.8931**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2940	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
Mobile	22.2940	38.4333	164.1520	0.3339	20.8221	0.5026	21.3247	5.5610	0.4633	6.0244		26,782.6249	26,782.6249	0.9679		26,802.9497
Total	**27.9014**	**41.2828**	**166.5831**	**0.3510**	**20.8221**	**0.7193**	**21.5414**	**5.5610**	**0.6800**	**6.2411**		**30,201.7560**	**30,201.7560**	**1.0336**	**0.0627**	**30,242.8931**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	22.2940	38.4333	164.1520	0.3339	20.8221	0.5026	21.3247	5.5610	0.4633	6.0244		26,782.6249	26,782.6249	0.9679		26,802.9497
Unmitigated	22.2940	38.4333	164.1520	0.3339	20.8221	0.5026	21.3247	5.5610	0.4633	6.0244		26,782.6249	26,782.6249	0.9679		26,802.9497

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,445.44	2,445.44	2445.44	1,459,621	1,459,621
Fast Food Restaurant w/o Drive Thru	716.00	696.00	500.00	1,235,649	1,235,649
Fast Food Restaurant with Drive Thru	2,698.89	3,927.84	2952.40	3,063,155	3,063,155
High Turnover (Sit Down Restaurant)	572.18	712.67	593.28	811,239	811,239
Hotel	817.00	819.00	595.00	1,874,508	1,874,508
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	7,249.51	8,600.95	7,086.12	8,444,172	8,444,172

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469745	0.065359	0.173284	0.156374	0.056542	0.009056	0.016508	0.042061	0.001112	0.001336	0.004986	0.000686	0.002952

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
NaturalGas Unmitigated	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	3931.41	0.0424	0.3854	0.3238	2.3100e-003		0.0293	0.0293		0.0293	0.0293		462.5184	462.5184	8.8600e-003	8.4800e-003	465.3332
High Turnover (Sit Down Restaurant)	3252.08	0.0351	0.3188	0.2678	1.9100e-003		0.0242	0.0242		0.0242	0.0242		382.5979	382.5979	7.3300e-003	7.0100e-003	384.9263
Hotel	21143.5	0.2280	2.0729	1.7412	0.0124		0.1575	0.1575		0.1575	0.1575		2,487.4714	2,487.4714	0.0477	0.0456	2,502.6097
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	12.2532	1.3000e-004	1.2000e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		1.4416	1.4416	3.0000e-005	3.0000e-005	1.4503
Fast Food Restaurant w/o Drive Thru	722.685	7.7900e-003	0.0709	0.0595	4.3000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		85.0218	85.0218	1.6300e-003	1.5600e-003	85.5392
Total		**0.3134**	**2.8492**	**2.3933**	**0.0171**		**0.2165**	**0.2165**		**0.2165**	**0.2165**		**3,419.0510**	**3,419.0510**	**0.0655**	**0.0627**	**3,439.8587**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	3.93141	0.0424	0.3854	0.3238	2.3100e-003		0.0293	0.0293		0.0293	0.0293		462.5184	462.5184	8.8600e-003	8.4800e-003	465.3332
High Turnover (Sit Down Restaurant)	3.25208	0.0351	0.3188	0.2678	1.9100e-003		0.0242	0.0242		0.0242	0.0242		382.5979	382.5979	7.3300e-003	7.0100e-003	384.9263
Hotel	21.1435	0.2280	2.0729	1.7412	0.0124		0.1575	0.1575		0.1575	0.1575		2,487.4714	2,487.4714	0.0477	0.0456	2,502.6097
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0.0122532	1.3000e-004	1.2000e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		1.4416	1.4416	3.0000e-005	3.0000e-005	1.4503
Fast Food Restaurant w/o Drive Thru	0.722685	7.7900e-003	0.0709	0.0595	4.3000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		85.0218	85.0218	1.6300e-003	1.5600e-003	85.5392
Total		**0.3134**	**2.8492**	**2.3933**	**0.0171**		**0.2165**	**0.2165**		**0.2165**	**0.2165**		**3,419.0510**	**3,419.0510**	**0.0655**	**0.0627**	**3,439.8587**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2940	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Unmitigated	5.9242	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8402					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**5.9242**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**5.2940**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Commercial Development-Operation

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	479.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Operation run only

Off-road Equipment - Operation run only

On-road Fugitive Dust - Operation run only

Vehicle Trips - Trip rates based on ITE Trip Generation Handbook

Area Coating - Based on updated Rule 1113-Default coatings 50 g/L low VOC levels

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	7.91	6.19
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	58.04	48.29
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00

tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	479.9
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleTrips	ST_TR	204.47	152.84
tblVehicleTrips	SU_TR	166.88	152.84
tblVehicleTrips	WD_TR	542.60	152.84

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.9242	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
Mobile	21.6775	39.7192	168.9106	0.3118	20.8221	0.5075	21.3296	5.5610	0.4678	6.0289		25,089.8433	25,089.8433	0.9710		25,110.2343
Total	**27.9151**	**42.5688**	**171.3416**	**0.3289**	**20.8221**	**0.7242**	**21.5463**	**5.5610**	**0.6845**	**6.2456**		**28,508.9744**	**28,508.9744**	**1.0368**	**0.0627**	**28,550.1777**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2940	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Energy	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
Mobile	21.6775	39.7192	168.9106	0.3118	20.8221	0.5075	21.3296	5.5610	0.4678	6.0289		25,089.8433	25,089.8433	0.9710		25,110.2343
Total	**27.2849**	**42.5688**	**171.3416**	**0.3289**	**20.8221**	**0.7242**	**21.5463**	**5.5610**	**0.6845**	**6.2456**		**28,508.9744**	**28,508.9744**	**1.0368**	**0.0627**	**28,550.1777**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.6775	39.7192	168.9106	0.3118	20.8221	0.5075	21.3296	5.5610	0.4678	6.0289		25,089.8433	25,089.8433	0.9710		25,110.2343
Unmitigated	21.6775	39.7192	168.9106	0.3118	20.8221	0.5075	21.3296	5.5610	0.4678	6.0289		25,089.8433	25,089.8433	0.9710		25,110.2343

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,445.44	2,445.44	2445.44	1,459,621	1,459,621
Fast Food Restaurant w/o Drive Thru	716.00	696.00	500.00	1,235,649	1,235,649
Fast Food Restaurant with Drive Thru	2,698.89	3,927.84	2952.40	3,063,155	3,063,155
High Turnover (Sit Down Restaurant)	572.18	712.67	593.28	811,239	811,239
Hotel	817.00	819.00	595.00	1,874,508	1,874,508
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	7,249.51	8,600.95	7,086.12	8,444,172	8,444,172

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469745	0.065359	0.173284	0.156374	0.056542	0.009056	0.016508	0.042061	0.001112	0.001336	0.004986	0.000686	0.002952

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587
NaturalGas Unmitigated	0.3134	2.8492	2.3933	0.0171		0.2165	0.2165		0.2165	0.2165		3,419.0510	3,419.0510	0.0655	0.0627	3,439.8587

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	722.685	7.7900e-003	0.0709	0.0595	4.3000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		85.0218	85.0218	1.6300e-003	1.5600e-003	85.5392
Fast Food Restaurant with Drive Thru	3931.41	0.0424	0.3854	0.3238	2.3100e-003		0.0293	0.0293		0.0293	0.0293		462.5184	462.5184	8.8600e-003	8.4800e-003	465.3332
High Turnover (Sit Down Restaurant)	3252.08	0.0351	0.3188	0.2678	1.9100e-003		0.0242	0.0242		0.0242	0.0242		382.5979	382.5979	7.3300e-003	7.0100e-003	384.9263
Hotel	21143.5	0.2280	2.0729	1.7412	0.0124		0.1575	0.1575		0.1575	0.1575		2,487.4714	2,487.4714	0.0477	0.0456	2,502.6097
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	12.2532	1.3000e-004	1.2000e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		1.4416	1.4416	3.0000e-005	3.0000e-005	1.4503
Total		**0.3134**	**2.8492**	**2.3933**	**0.0171**		**0.2165**	**0.2165**		**0.2165**	**0.2165**		**3,419.0510**	**3,419.0510**	**0.0655**	**0.0627**	**3,439.8587**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	3.93141	0.0424	0.3854	0.3238	2.3100e-003		0.0293	0.0293		0.0293	0.0293		462.5184	462.5184	8.8600e-003	8.4800e-003	465.3332
High Turnover (Sit Down Restaurant)	3.25208	0.0351	0.3188	0.2678	1.9100e-003		0.0242	0.0242		0.0242	0.0242		382.5979	382.5979	7.3300e-003	7.0100e-003	384.9263
Hotel	21.1435	0.2280	2.0729	1.7412	0.0124		0.1575	0.1575		0.1575	0.1575		2,487.4714	2,487.4714	0.0477	0.0456	2,502.6097
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0.0122532	1.3000e-004	1.2000e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		1.4416	1.4416	3.0000e-005	3.0000e-005	1.4503
Fast Food Restaurant w/o Drive Thru	0.722685	7.7900e-003	0.0709	0.0595	4.3000e-004		5.3800e-003	5.3800e-003		5.3800e-003	5.3800e-003		85.0218	85.0218	1.6300e-003	1.5600e-003	85.5392
Total		**0.3134**	**2.8492**	**2.3933**	**0.0171**		**0.2165**	**0.2165**		**0.2165**	**0.2165**		**3,419.0510**	**3,419.0510**	**0.0655**	**0.0627**	**3,439.8587**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2940	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Unmitigated	5.9242	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8402					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**5.9242**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5800e-003	3.5000e-004	0.0378	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0801	0.0801	2.2000e-004		0.0847
Total	**5.2940**	**3.5000e-004**	**0.0378**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0801**	**0.0801**	**2.2000e-004**		**0.0847**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix B:
Greenhouse Gas Analysis

Prepared by Urban Crossroads, Inc.
September 7, 2016

Commercial Development

GREENHOUSE GAS ANALYSIS

CITY OF RIALTO

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SEPTEMBER 7, 2016

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **I**
APPENDICES ..... **II**
LIST OF EXHIBITS ..... **III**
LIST OF TABLES ..... **III**
LIST OF ABBREVIATED TERMS ..... **IV**
EXECUTIVE SUMMARY **1**
1 INTRODUCTION **3**
1.1 Site Location 3
1.2 Project Description 3
1.3 Regulatory Requirements 6
1.4 Renaissance SP EIR Mitigation Measures 7
2 CLIMATE CHANGE SETTING **9**
2.1 Introduction to Global Climate Change 9
2.2 Greenhouse Gas Emissions Inventories 9
2.3 Global Climate Change Defined 10
2.4 Greenhouse Gases 11
2.5 Effects of Climate Change in California 15
2.6 Human Health Effects 17
2.7 Regulatory Setting 18
3 PROJECT GREENHOUSE GAS IMPACT **33**
3.1 Introduction 33
3.2 Project Related Greenhouse Gas Emissions 33
3.3 Construction and Operational Life-Cycle Analysis 33
3.4 Construction Emissions 33
3.5 Operational Emissions 34
3.6 Emissions Summary 35
4 FINDINGS & CONCLUSIONS **39**
5 REFERENCES **41**
6 CERTIFICATION **45**

APPENDICES

APPENDIX 3.1: CALEEMOD EMISSIONS MODEL OUTPUTS

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP....4
EXHIBIT 1-B: SITE PLAN....5
EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT....18

LIST OF TABLES

TABLE ES-1: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT....1
TABLE ES-2: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON....2
TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION....10
TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS....12
TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET....24
TABLE 3-1: 2020 PROJECT GHG NAT SCENARIO (ANNUAL)....35
TABLE 3-2: 2020 TOTAL PROJECT GREENHOUSE GAS EMISSIONS (ANNUAL)....36
TABLE 3-3: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT....36
TABLE 3-4: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON....37
TABLE 4-1: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT....39
TABLE 4-2: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON....40

LIST OF ABBREVIATED TERMS

(1)	Reference
APS	Alternative Planning Organizations
ARB	California Air Resources Board
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH4	Methane
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MPOs	Metropolitan Planning Organizations
MTCO2e	Metric Ton of Carbon Dioxide Equivalent
N20	Nitrogen Dioxide
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFC	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less

PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Commercial Development
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategies
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

For informational purposes only, consistent with the Renaissance Specific Plan Environmental Impact Report (Renaissance SP EIR), the Project's GHG emissions are evaluated to determine if they fall 28.5% or more below a California Air Resources Board (CARB) 2020 No Action Taken (NAT) Scenario (1).

As shown on Table ES-1, the 2020 NAT Project GHG emissions would total 6,723.45 million metric ton of carbon dioxide equivalent (MMTCO2e) and the 2020 Project GHG emissions would total 4,892.92 MTCO2e. The Project would result in a 27.23% reduction from the 2020 NAT scenario, which is below the minimum 28.5% reduction threshold for the 2020 NAT Scenario. Therefore, Project would result in a significant and cumulatively considerable impact. However, this finding does not conflict with the significant and unavoidable impact conclusion determined in the Renaissance SP EIR with respect to GHG emissions.

TABLE ES-1: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT

Emission Source	**CO2e Emissions Levels by Year (Metric Tons Per Year)**	
	2020 NAT	**2020**
Annual Construction-related emissions amortized over 30 years	19.08	19.08
Area	0.01	0.01
Energy Use	1,862.73	1,281.88
Mobile Sources	4,725.07	3,483.36
Waste	83.01	83.01
Water Usage	33.55	25.58
Total	6,723.45	4,892.92
Project Minimum Reduction over 2020 NAT	**27.23%**	
Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Rialto has not adopted a numeric threshold for determining the significance of project-level greenhouse gas (GHG) emissions impacts. Guidance in this respect is, however provided by the South Coast Air Quality Management District (SCAQMD). More specifically, to provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff has established an on-going GHG CEQA Significance Threshold Working Group (Working Group). Working Group members include implementing CEQA agencies and various stakeholders that effect and are affected by SCAQMD actions.

The SCAQMD Working Group has proposed a "bright-line" screening-level threshold of 3,000 MTCO2e/year for all land use types. Alternatively, the following land-use-specific screening-level thresholds may be employed: 1,400 MTCO2e for commercial projects, 3,500 MTCO2e for

residential projects, or 3,000 MTCO2e for mixed-use projects. Project GHG emissions not exceeding these screening level thresholds would be considered less-than-significant.

As shown on Table ES-2, the Project will result in 4,892.92 MTCO2e per year; the proposed project would exceed the SCAQMD/City's screening threshold of 3,000 MTCO2e per year. Thus, project-related emissions would have a significant direct or indirect impact on GHG and climate change.

Notwithstanding, the overall GHG impacts of the proposed Project would be less than what was disclosed in the Renaissance SP EIR. As such, no new significant impacts would occur with respect to the proposed Project.

TABLE ES-2: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON

Emission Source	Emissions (metric tons per year)			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0.00	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	**4,892.92**			
SCAQMD Threshold	3,000			
Threshold Exceeded?	**YES**			
Renaissance SP EIR GHG Emissions	**301,445.00**			
Threshold Exceeded?	**YES**			
Net Change	**-296,552.08**			
New Significant Impacts?	**NO**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for the proposed Commercial Development (referred to as "Project").

The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

This GHGA quantifies the GHG emissions associated with the Project for two scenarios: first, as if no actions to reduce emissions were taken as compared to the assumptions used in preparing the baseline 2020 emissions for the California Air Resources Board Scoping Plan, referred to herein as "No Action Taken (NAT)," to implement Assembly Bill (AB) 32, and second as designed with applicable design features. CARB defines NAT in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-gathering sector were compiled and used to estimate emissions for 2020 based on 2002-2004 emission intensities. For analysis purposes, 2005 emission intensities were used as the NAT scenario due to the fact that it was the most appropriate year made available in CalEEMod 2013.2.2. It should be noted that CARBs definition of NAT is 2002-2004 average emissions estimates grown out to 2020 without accounting for any regulatory requirements put in place prior to AB 32. Thus, use of 2005 emission intensities is appropriate for modeling and comparison purposes for NAT conditions.

1.1 SITE LOCATION

The proposed Commercial Development site is located on the southwest corner of Alder Avenue and I-210 Freeway in the City of Rialto, as shown on Exhibit 1-A.

The Project site is currently vacant and is designated by the City of Rialto General Plan Land Use Map, as Specific Plan (SP). Specifically, the Project is under the Renaissance Specific Plan (Renaissance SP), which designates the Project site as Freeway Commercial (2). Existing residential land uses in the Project study area are located west of the Project site. Existing warehouse buildings are located southwest and southeast of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, and 5,440 square feet of fast food with drive-through use, as shown on Exhibit 1-B.

For the purposes of this GHGA, it is assumed that the Project will be constructed and at full occupancy in 2019.

EXHIBIT 1-A: LOCATION MAP

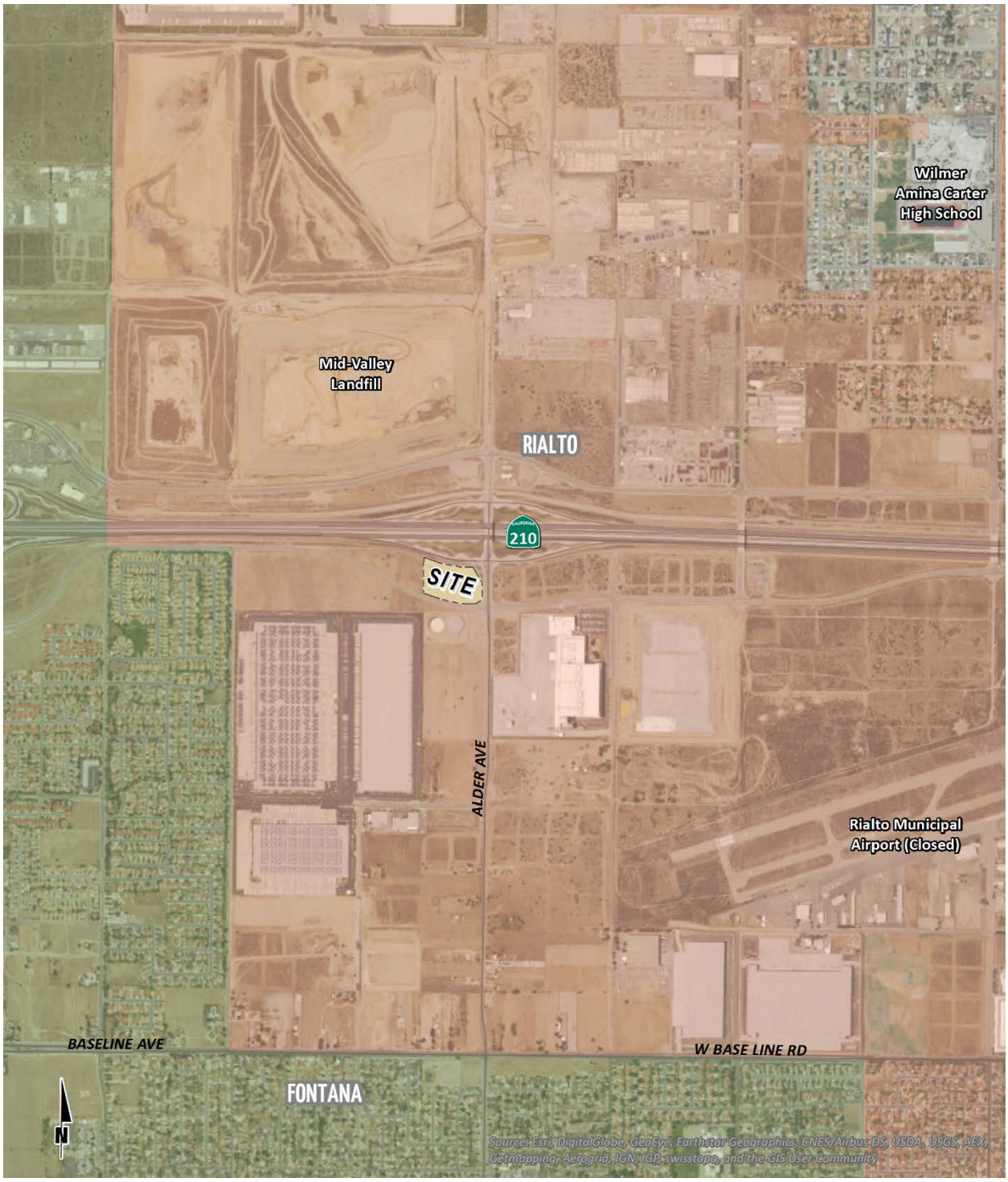
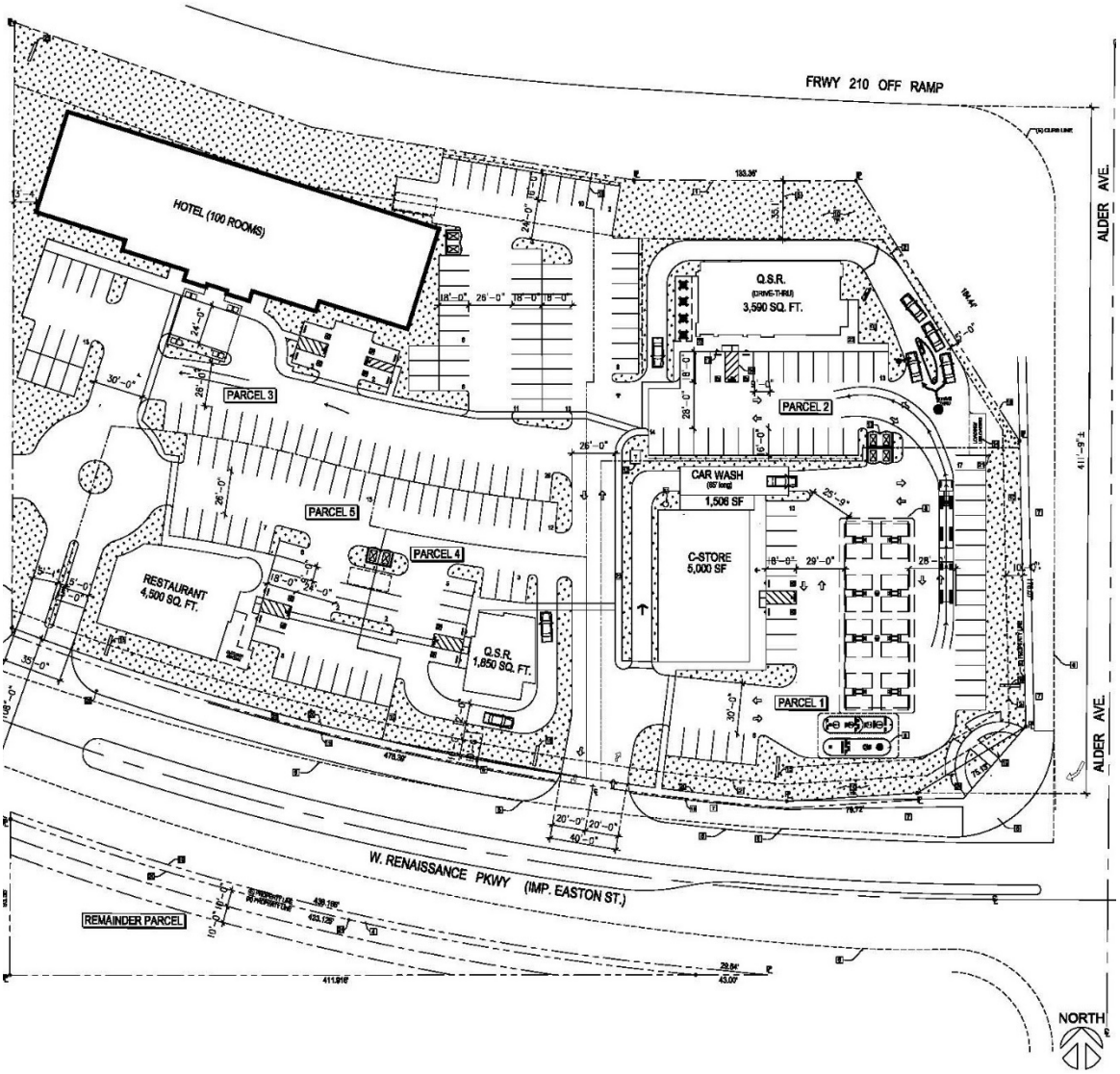


EXHIBIT 1-B: SITE PLAN



1.3 REGULATORY REQUIREMENTS

The Project would be required to comply with all mandates imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are:

- Global Warming Solutions Act of 2006 (AB32) (3). AB 32 is applicable to the Project because, as a development Project, the Commercial Development will need to meet 2020 GHG reduction goals set forth in AB 32. AB 32 requires the California Air Resources Board (CARB or ARB) to develop regulations and market mechanisms to reduce California's greenhouse gas emissions to 1990 levels by the year of 2020. Many of the GHG reduction measures outlined in AB 32 (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years and implementation activities are ongoing.
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (4). AB 1493 (Pavley) establishes fuel efficiency rating for model year 2009-2016 passenger cars and light trucks. AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by the State of California to implement GHG emission reduction standards related to fuel efficiency. The CARB anticipates that implementation of the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 30 percent in 2016 compared to emissions that occurred prior to 2009 when AB 1492 was enacted.
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (5). The Title 24 energy standards address the energy efficiency of new (and altered) homes and commercial buildings. Because energy efficiency reduces energy costs, increases reliability and availability of electricity, improves building occupant comfort, and reduces impacts to the environment, standards are important and necessary for California's energy future. Therefore, a new development such as the Commercial Development is required to comply with Title 24 Code of Regulations and would therefore increase the Project's energy efficiency and reduce its environmental impact.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (6). Because the LCFS applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party, is responsible for a transportation fuel in a calendar year, all vehicles accessing the site will be required to comply with LCFS. Implementation of such a standard will reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California.
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (7). As new development project within the State of California, the Commercial Development is required to comply with the City of San Bernardino's adopted water efficient landscape requirements and would therefore be consistent with the requirements of AB1881 in order to help conserve California's water resources and to promote efficient water use.

1.4 RENAISSANCE SP EIR MITIGATION MEASURES

The following applicable mitigation measures are from the Renaissance SP EIR and are required for the Project.

MM CC-1

Homes and businesses will exceed the 2008 Standards for Title 24 Part 6 energy efficiency standards by at least 10 percent.

MM CC-3

The Proposed Project will comply with any applicable local Climate Action Plan or mitigation program for the reduction of GHGs adopted by the City of Rialto or the County of San Bernardino that is adopted prior to issuance of building permits for subsequent project plans.

MM CC-4

The Proposed Project shall promote the use of alternative fuel technologies for construction vehicles by including language in construction bid specifications and weighting the use of alternative fuel technologies in the selection of construction contractors.

MM CC-5

Throughout construction, the Proposed Project shall maintain a centralized information repository for available recycled building materials. Recycled building materials shall be incorporated where practicable.

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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 201. For the Year 201 the sum of these emissions totaled approximately 28,865,994 Gg CO2e[1] (8) (9). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United States was CO2, representing approximately 83 percent of total greenhouse gas emissions (10). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION[2]

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (27 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770
Japan	1,344,580
Total	**28,865,994**

State of California

CARB compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 greenhouse gas emissions inventory, California emitted 474 MMTCO2e including emissions resulting from imported electrical power in 2008 (11). Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute (12), California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 MMTCO2e excluding emissions related to imported power.

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change (GCC) refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (13).

[2] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer http://www.wri.org site to reference Non-Annex I countries such as China and India.

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent (CO2e) greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls (12).

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-1 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-2. As shown in the table below, GWP for the SAR range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the AR4 range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride.

TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)	
		Second Assessment Report (SAR)	4th Assessment Report (AR4)
Carbon Dioxide	50-200	1	1
Methane	12 ± 3	21	25
Nitrous Oxide	120	310	298
HFC-23	264	11,700	14,800
HFC-134a	14.6	1,300	1,430
HFC-152a	1.5	140	124
Sulfur Hexafluoride (SF6)	3,200	23,900	22,800

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (15).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (16).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health

effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (17). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea

level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (18). Exhibit 2-A presents the potential impacts of global warming.

Specific health effects associated with directly emitted GHG emissions are as follows:

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (19).

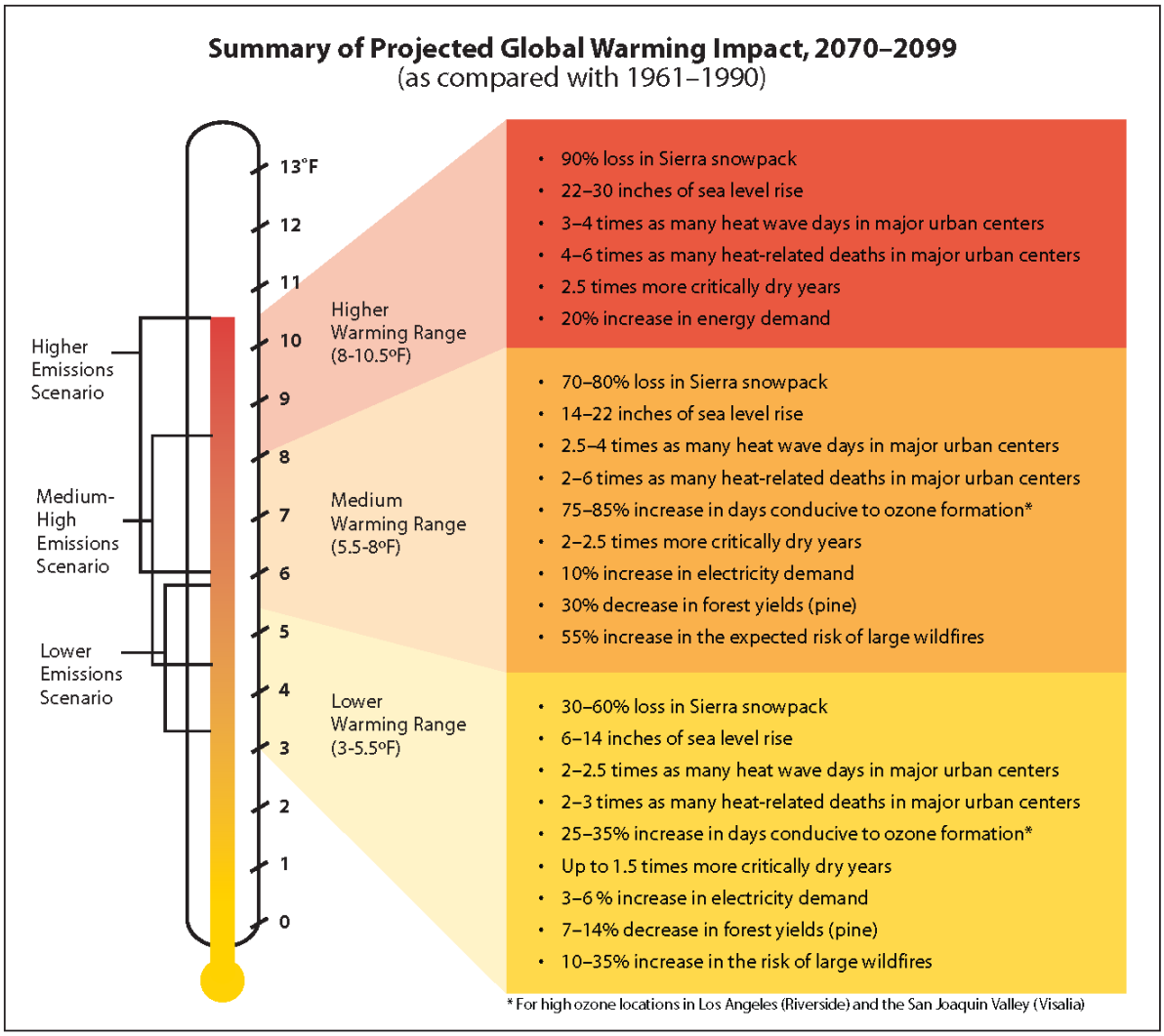
Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (20).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (20).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (19).

Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (21).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



2.7 REGULATORY SETTING

International Regulation and the Kyoto Protocol:

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act (22) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

Title 24 Energy Standards:

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (23) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's

most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain
- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

CALGreen

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (24). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There

are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non-residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (25). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA

and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (CARB 2009, http://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf) both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (26). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (27). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-3, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons tons of CO2e (or approximately 1.2 percent of the GHG reduction target).

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action

TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO2 equivalent (MTCO2e) to 545 MTCO2e. (28) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO2e, or 21.7 percent (down from 28.5 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO2e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO2e, or approximately 16 percent (down from 28.5 percent), from the BAU condition. (28) (29)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO2e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO2e. (30) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO2e (down from 509 MTCO2e), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (28) (29) (30)

Although CARB has released an update to the Scoping Plan and reduction targets from BAU, it is still appropriate to utilize the previous 28.5% reduction from BAU since the modeling tools available are not able to easily segregate the inclusion of the renewable portfolio standards, and Pavley requirements that are now included in the revised BAU scenario.

California Senate Bill No. 1368 (SB 1368):

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (31). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

Senate Bill 97 (SB 97):

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009 (32). The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a Project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a Project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Executive Order S-01-07:

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (33). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

Senate Bills 1078 and 107 and Executive Order S-14-08:

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (34). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (33). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (35).

Executive Order B-30-15:

In January 2015, Governor Brown, in his inaugural address and annual report to the Legislature, established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50% measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

On April 29, 2015 California Governor Jerry Brown, through Executive Order B-30-15 ("BEO") states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030.

The BEO sets an ambitious new Statewide GHG emissions reduction target of 40% below 1990 levels by 2030 as a "mid-term" benchmark needed to achieve the 80% below 1990 levels by 2050. It should be noted however that this target has not been formally enacted by the Legislature or even CARB. As such, the BEO does not appear to constitute a new regulation or requirement adopted to implement a statewide, regional or local plan for the reduction of GHG emissions within the context of CEQA.

The Project reduces its GHG emissions to the maximum extent feasible as discussed in this document. At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15.

Additionally, as described previously, the project applicant would not actively interfere with any future City-mandated, state-mandated, or federally-mandated retrofit obligations enacted or promulgated to legally require development City-wide, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05 or Executive Order B-30-15.

Based on the foregoing, the Project does not interfere with the state's implementation of (i) Executive Order B-30-15's target of reducing statewide GHG emissions to 40% below 1990 levels by 2030 or (ii) Executive Order S-3-05's target of reducing statewide GHG emissions to 80% below 1990 levels by 2050 because it does not interfere with the state's implementation of GHG reduction plans described in the CARB's Updated Scoping Plan, including the state providing for 12,000 MW of renewable distributed generation by 2020, the California Building Commission mandating net zero energy homes in the building code after 2020, or existing building retrofits under AB 758. Therefore, the project's impacts on greenhouse gas emissions in the 2030 and 2050 horizon years are less than significant.

Senate Bill 375:

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation (36). SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs,

will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released, this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board (CARB) for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:

Separate from its Scoping Plan approved in December of 2008 (37), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO2e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus cannot be applied to the Project.

South Coast Air Quality Management District Recommendations for Significance Thresholds:

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc (38). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a Project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

In September 2010 (39), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
    - 3,000 MTCO2e per year for all land use types

      or
    - 3,500 MTCO2e per year for residential; 1,400 MTCO2e per year for commercial; or 3,000 MTCO2e per year for mixed-use projects
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: A project-level efficiency target of 4.8 MTCO2e per service population as a 2020 target and 3.0 MTCO2e per service population as a 2035 target. The recommended

plan-level target for 2020 is 6.6 MTCO2e and the plan level target for 2035 is 4.1 MTCO2e

- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heater, forestry, and manure management projects, none of which are required by the Project

Consistent to the Renaissance SP EIR, the Tier 4 Option 1 approach is utilized in this greenhouse gas analysis in order to determine the significance of the Project GHG emissions. An emissions reduction of 28.5% below a NAT scenario was used as the determining threshold which is consistent with AB 32 reduction target.

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3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (41).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (42). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.3 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the proposed Project will result in emissions of CO2 and CH4 from construction activities.

The report Commercial Development Air Quality Impact Analysis Report, Urban Crossroads, Inc. (2016) contains detailed information regarding construction activity (43).

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by the a 30 year project life then adding that number to the annual operational phase GHG emissions (44). As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution

3.5.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

GHG emissions will also result from mobile sources associated with the Project. These mobile source emissions will result from the typical daily operation of motor vehicles by visitors, employees, and residents. Project mobile source emissions are dependent on both overall daily vehicle trip generation. Trip characteristics available from the report, Commercial Development Traffic Impact Analysis Urban Crossroads (2016) were utilized in this analysis (45).

3.5.4 SOLID WASTE

Residential and Commercial Retail land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are

associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.5.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod™ default parameters were used.

3.6 EMISSIONS SUMMARY

As shown on Tables 3-1 and 3-2, the 2020 NAT Project GHG emissions would total 6,723.45 MMTCO2e and the 2020 Project GHG emissions would total 4,892.92 MTCO2e, respectively. As summarized in Table 3-3, this results in a 27.23% reduction from the 2020 NAT scenario; thus, the Project would not meet the 28.5% 2020 NAT Scenario. The Project would result in a significant and cumulatively considerable impact. This finding does not conflict with the significant and unavoidable impact conclusion identified in the Renaissance SP EIR with respect to GHG emissions.

TABLE 3-1: 2020 PROJECT GHG NAT SCENARIO (ANNUAL)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2E
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	4.00E-05	0.00	9.97E-03
Energy	1,854.26	0.06	0.02	1,862.73
Mobile Sources	4,714.38	0.51	0	4,725.07
Waste	37.04	2.19	0	83.01
Water Usage	27.89	0.2	4.86E-03	33.55
Total CO_2E (All Sources)	**6,723.45**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.
Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent

TABLE 3-2: 2020 TOTAL PROJECT GREENHOUSE GAS EMISSIONS (ANNUAL)

Emission Source	Emissions (metric tons per year)			
	CO2	CH4	N2O	Total CO2E
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	**4,892.92**			

TABLE 3-3: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2020 NAT	2020
Annual Construction-related emissions amortized over 30 years	19.08	19.08
Area	0.01	0.01
Energy Use	1,862.73	1,281.88
Mobile Sources	4,725.07	3,483.36
Waste	83.01	83.01
Water Usage	33.55	25.58
Total	6,723.45	4,892.92
Project Minimum Reduction over 2020 NAT	**27.23%**	
Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Rialto has not adopted a numeric threshold for determining the significance of project-level greenhouse gas (GHG) emissions impacts. Guidance in this respect is, however provided by the South Coast Air Quality Management District (SCAQMD). More specifically, to provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff has established an on-going GHG CEQA Significance Threshold Working Group (Working Group). Working Group members include implementing CEQA agencies and various stakeholders that effect and are affected by SCAQMD actions.

The SCAQMD Working Group has proposed a "bright-line" screening-level threshold of 3,000 MTCO2e/year for all land use types. Alternatively, the following land-use-specific screening-level thresholds may be employed: 1,400 MTCO2e for commercial projects, 3,500 MTCO2e for

residential projects, or 3,000 MTCO2e for mixed-use projects. Project GHG emissions not exceeding these screening level thresholds would be considered less-than-significant.

As shown on Table 3-4, the Project will result in 4,892.92 MTCO2e per year; the proposed project would exceed the SCAQMD/City's screening threshold of 3,000 MTCO2e per year. Thus, project-related emissions would have a significant direct or indirect impact on GHG and climate change.

Notwithstanding, the overall GHG impacts of the proposed Project would be less than what was disclosed in the Renaissance SP EIR. As such, no new significant impacts would occur with respect to the proposed Project.

TABLE 3-4: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON

Emission Source	Emissions (metric tons per year)			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0.00	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	**4,892.92**			
SCAQMD Threshold	3,000			
Threshold Exceeded?	**YES**			
Renaissance SP EIR GHG Emissions	**301,445.00**			
Threshold Exceeded?	**YES**			
Net Change	**-296,552.08**			
New Significant Impacts?	**NO**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

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4 FINDINGS & CONCLUSIONS

For informational purposes only, consistent with the Renaissance SP EIR, the Project's GHG emissions are evaluated to determine if they fall 28.5% or more below a CARB 2020 NAT Scenario (1).

As shown on Table 4-1, the 2020 NAT Project GHG emissions would total 6,723.45 MMTCO2e and the 2020 Project GHG emissions would total 4,892.92 MTCO2e. The Project would result in a 27.23% reduction from the 2020 NAT scenario, which is below the minimum 28.5% reduction threshold for the 2020 NAT Scenario. Therefore, Project would result in a significant and cumulatively considerable impact. However, this finding does not conflict with the significant and unavoidable impact conclusion determined in the Renaissance SP EIR with respect to GHG emissions.

TABLE 4-1: SUMMARY OF GHG EMISSIONS FOR 2020 NAT VS 2020 PROJECT

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2020 NAT	**2020**
Annual Construction-related emissions amortized over 30 years	19.08	19.08
Area	0.01	0.01
Energy Use	1,862.73	1,281.88
Mobile Sources	4,725.07	3,483.36
Waste	83.01	83.01
Water Usage	33.55	25.58
Total	6,723.45	4,892.92
Project Minimum Reduction over 2020 NAT	**27.23%**	
Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Rialto has not adopted a numeric threshold for determining the significance of project-level GHG emissions impacts. Guidance in this respect is, however provided by the SCAQMD. More specifically, to provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff has established an on-going Working Group. Working Group members include implementing CEQA agencies and various stakeholders that effect and are affected by SCAQMD actions.

The SCAQMD Working Group has proposed a "bright-line" screening-level threshold of 3,000 MTCO2e/year for all land use types. Alternatively, the following land-use-specific screening-level thresholds may be employed: 1,400 MTCO2e for commercial projects, 3,500 MTCO2e for residential projects, or 3,000 MTCO2e for mixed-use projects. Project GHG emissions not exceeding these screening level thresholds would be considered less-than-significant.

As shown on Table 4-2, the Project will result in 4,892.92 MTCO2e per year; the proposed project would exceed the SCAQMD/City's screening threshold of 3,000 MTCO2e per year. Thus, project-related emissions would have a significant direct or indirect impact on GHG and climate change.

Notwithstanding, the overall GHG impacts of the proposed Project would be less than what was disclosed in the Renaissance SP EIR. As such, no new significant impacts would occur with respect to the proposed Project.

TABLE 4-2: PROJECT VS RENAISSANCE SP EIR GHG EMISSIONS COMPARISON

Emission Source	Emissions (metric tons per year)			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	19.01	3.33E-03	--	19.08
Area	9.09E-03	2.00E-05	--	9.60E-03
Energy	1,274.69	0.05	2.00E-02	1,281.88
Mobile Sources	3,480.64	0.13	0.00	3,483.36
Waste	37.04	2.19	--	83.01
Water Usage	19.93	0.20	4.86E-03	25.58
Total CO_2E (All Sources)	**4,892.92**			
SCAQMD Threshold	3,000			
Threshold Exceeded?	**YES**			
Renaissance SP EIR GHG Emissions	**301,445.00**			
Threshold Exceeded?	**YES**			
Net Change	**-296,552.08**			
New Significant Impacts?	**NO**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Commercial Development. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

Commercial Development-Construction

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	479.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Based on a 2019 opening year

Off-road Equipment -

Off-road Equipment - Based on 8 hour work day

Off-road Equipment -

Off-road Equipment - Based on 8 hour workday

On-road Fugitive Dust -

Vehicle Trips - Construction run only

Architectural Coating - Based on updated Rule 1113- Default coatings 50 g/L low VOC levels

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConsumerProducts	ROG_EF	1.98E-05	1E-07

tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	6.13	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	7.91	0.00
tblEnergyUse	T24NG	2.02	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	58.04	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00

tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	479.9
tblProjectCharacteristics	OperationalYear	2014	2019
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	11.52	0.00
tblSolidWaste	SolidWasteGenerationRate	62.66	0.00
tblSolidWaste	SolidWasteGenerationRate	53.55	0.00
tblSolidWaste	SolidWasteGenerationRate	54.75	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDA	0.47	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD2	9.0560e-003	0.00
tblVehicleEF	LHD2	9.0560e-003	0.00

tblVehicleEF	LHD2	9.0560e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MCY	4.9860e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MH	2.9520e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	OBUS	1.1120e-003	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	SBUS	6.8600e-004	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleEF	UBUS	1.3360e-003	0.00
tblVehicleTrips	ST_TR	204.47	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	166.88	0.00

tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	542.60	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblWater	IndoorWaterUseRate	167,314.87	0.00
tblWater	IndoorWaterUseRate	303,533.71	0.00
tblWater	IndoorWaterUseRate	1,651,223.40	0.00
tblWater	IndoorWaterUseRate	1,365,901.71	0.00
tblWater	IndoorWaterUseRate	2,536,677.00	0.00
tblWater	OutdoorWaterUseRate	102,547.82	0.00
tblWater	OutdoorWaterUseRate	19,374.49	0.00
tblWater	OutdoorWaterUseRate	105,397.24	0.00
tblWater	OutdoorWaterUseRate	87,185.22	0.00
tblWater	OutdoorWaterUseRate	281,853.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.4540	3.8588	3.7173	6.4900e-003	0.3246	0.2204	0.5450	0.1288	0.2062	0.3350	0.0000	544.7349	544.7349	0.0934	0.0000	546.6962
2019	0.4042	0.1679	0.1772	3.0000e-004	3.9700e-003	9.4300e-003	0.0134	1.0600e-003	8.8200e-003	9.8700e-003	0.0000	25.5869	25.5869	6.4600e-003	0.0000	25.7225
Total	**0.8582**	**4.0267**	**3.8945**	**6.7900e-003**	**0.3286**	**0.2298**	**0.5584**	**0.1298**	**0.2150**	**0.3449**	**0.0000**	**570.3217**	**570.3217**	**0.0999**	**0.0000**	**572.4187**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.4540	3.8588	3.7173	6.4900e-003	0.2295	0.2204	0.4499	0.0779	0.2062	0.2842	0.0000	544.7345	544.7345	0.0934	0.0000	546.6958
2019	0.4042	0.1679	0.1772	3.0000e-004	3.9700e-003	9.4300e-003	0.0134	1.0600e-003	8.8200e-003	9.8700e-003	0.0000	25.5868	25.5868	6.4600e-003	0.0000	25.7225
Total	**0.8582**	**4.0267**	**3.8945**	**6.7900e-003**	**0.2335**	**0.2298**	**0.4633**	**0.0790**	**0.2150**	**0.2940**	**0.0000**	**570.3213**	**570.3213**	**0.0999**	**0.0000**	**572.4182**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**28.93**	**0.00**	**17.03**	**39.15**	**0.00**	**14.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.6800e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6800e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.6800e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6800e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2018	1/12/2018	5	10	
2	Grading	Grading	1/13/2018	2/9/2018	5	20	
3	Building Construction	Building Construction	2/10/2018	12/28/2018	5	230	
4	Paving	Paving	12/29/2018	1/25/2019	5	20	
5	Architectural Coating	Architectural Coating	1/26/2019	2/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 248,110; Non-Residential Outdoor: 82,703 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	42.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2280	0.1812	2.0000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	17.8705	17.8705	5.5600e-003	0.0000	17.9873
Total	**0.0215**	**0.2280**	**0.1812**	**2.0000e-004**	**0.0903**	**0.0118**	**0.1022**	**0.0497**	**0.0109**	**0.0605**	**0.0000**	**17.8705**	**17.8705**	**5.5600e-003**	**0.0000**	**17.9873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.2000e-004	4.4400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8151	0.8151	4.0000e-005	0.0000	0.8160
Total	**2.7000e-004**	**4.2000e-004**	**4.4400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8151**	**0.8151**	**4.0000e-005**	**0.0000**	**0.8160**

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2280	0.1812	2.0000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	17.8705	17.8705	5.5600e-003	0.0000	17.9873
Total	**0.0215**	**0.2280**	**0.1812**	**2.0000e-004**	**0.0352**	**0.0118**	**0.0471**	**0.0194**	**0.0109**	**0.0302**	**0.0000**	**17.8705**	**17.8705**	**5.5600e-003**	**0.0000**	**17.9873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.2000e-004	4.4400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8151	0.8151	4.0000e-005	0.0000	0.8160
Total	**2.7000e-004**	**4.2000e-004**	**4.4400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8151**	**0.8151**	**4.0000e-005**	**0.0000**	**0.8160**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0300	0.3107	0.2400	3.0000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	27.1530	27.1530	8.4500e-003	0.0000	27.3305
Total	**0.0300**	**0.3107**	**0.2400**	**3.0000e-004**	**0.0655**	**0.0172**	**0.0827**	**0.0337**	**0.0158**	**0.0495**	**0.0000**	**27.1530**	**27.1530**	**8.4500e-003**	**0.0000**	**27.3305**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	7.0000e-004	7.3900e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3586	1.3586	7.0000e-005	0.0000	1.3600
Total	**4.5000e-004**	**7.0000e-004**	**7.3900e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3586**	**1.3586**	**7.0000e-005**	**0.0000**	**1.3600**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0300	0.3107	0.2400	3.0000e-004		0.0172	0.0172		0.0158	0.0158	0.0000	27.1529	27.1529	8.4500e-003	0.0000	27.3304
Total	**0.0300**	**0.3107**	**0.2400**	**3.0000e-004**	**0.0256**	**0.0172**	**0.0428**	**0.0131**	**0.0158**	**0.0290**	**0.0000**	**27.1529**	**27.1529**	**8.4500e-003**	**0.0000**	**27.3304**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	7.0000e-004	7.3900e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3586	1.3586	7.0000e-005	0.0000	1.3600
Total	**4.5000e-004**	**7.0000e-004**	**7.3900e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3586**	**1.3586**	**7.0000e-005**	**0.0000**	**1.3600**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3264	2.8843	2.1525	3.3000e-003		0.1840	0.1840		0.1728	0.1728	0.0000	291.9292	291.9292	0.0728	0.0000	293.4570
Total	**0.3264**	**2.8843**	**2.1525**	**3.3000e-003**		**0.1840**	**0.1840**		**0.1728**	**0.1728**	**0.0000**	**291.9292**	**291.9292**	**0.0728**	**0.0000**	**293.4570**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0369	0.3677	0.5119	1.0400e-003	0.0299	5.8800e-003	0.0357	8.5400e-003	5.4100e-003	0.0140	0.0000	92.0322	92.0322	6.7000e-004	0.0000	92.0462
Worker	0.0375	0.0583	0.6123	1.6100e-003	0.1362	9.7000e-004	0.1372	0.0362	9.0000e-004	0.0371	0.0000	112.4899	112.4899	5.5300e-003	0.0000	112.6061
Total	**0.0744**	**0.4260**	**1.1242**	**2.6500e-003**	**0.1660**	**6.8500e-003**	**0.1729**	**0.0447**	**6.3100e-003**	**0.0510**	**0.0000**	**204.5221**	**204.5221**	**6.2000e-003**	**0.0000**	**204.6524**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3264	2.8843	2.1525	3.3000e-003		0.1840	0.1840		0.1728	0.1728	0.0000	291.9289	291.9289	0.0728	0.0000	293.4566
Total	**0.3264**	**2.8843**	**2.1525**	**3.3000e-003**		**0.1840**	**0.1840**		**0.1728**	**0.1728**	**0.0000**	**291.9289**	**291.9289**	**0.0728**	**0.0000**	**293.4566**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0369	0.3677	0.5119	1.0400e-003	0.0299	5.8800e-003	0.0357	8.5400e-003	5.4100e-003	0.0140	0.0000	92.0322	92.0322	6.7000e-004	0.0000	92.0462
Worker	0.0375	0.0583	0.6123	1.6100e-003	0.1362	9.7000e-004	0.1372	0.0362	9.0000e-004	0.0371	0.0000	112.4899	112.4899	5.5300e-003	0.0000	112.6061
Total	**0.0744**	**0.4260**	**1.1242**	**2.6500e-003**	**0.1660**	**6.8500e-003**	**0.1729**	**0.0447**	**6.3100e-003**	**0.0510**	**0.0000**	**204.5221**	**204.5221**	**6.2000e-003**	**0.0000**	**204.6524**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1000e-004	8.5800e-003	7.2500e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.0184	1.0184	3.2000e-004	0.0000	1.0251
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5000e-004**	**8.5800e-003**	**7.2500e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**1.0184**	**1.0184**	**3.2000e-004**	**0.0000**	**1.0251**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	4.0000e-005	3.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0679	0.0679	0.0000	0.0000	0.0680
Total	**2.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0679**	**0.0679**	**0.0000**	**0.0000**	**0.0680**

3.5 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1000e-004	8.5800e-003	7.2500e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.0184	1.0184	3.2000e-004	0.0000	1.0251
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5000e-004**	**8.5800e-003**	**7.2500e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**1.0184**	**1.0184**	**3.2000e-004**	**0.0000**	**1.0251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	4.0000e-005	3.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0679	0.0679	0.0000	0.0000	0.0680
Total	**2.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0679**	**0.0679**	**0.0000**	**0.0000**	**0.0680**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1419	0.1365	2.1000e-004		7.6900e-003	7.6900e-003		7.0700e-003	7.0700e-003	0.0000	19.0375	19.0375	6.0200e-003	0.0000	19.1640
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0163**	**0.1419**	**0.1365**	**2.1000e-004**		**7.6900e-003**	**7.6900e-003**		**7.0700e-003**	**7.0700e-003**	**0.0000**	**19.0375**	**19.0375**	**6.0200e-003**	**0.0000**	**19.1640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	6.1000e-004	6.3600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.2363	1.2363	6.0000e-005	0.0000	1.2376
Total	**3.9000e-004**	**6.1000e-004**	**6.3600e-003**	**2.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.1000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2363**	**1.2363**	**6.0000e-005**	**0.0000**	**1.2376**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1419	0.1365	2.1000e-004		7.6900e-003	7.6900e-003		7.0700e-003	7.0700e-003	0.0000	19.0375	19.0375	6.0200e-003	0.0000	19.1640
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0163**	**0.1419**	**0.1365**	**2.1000e-004**		**7.6900e-003**	**7.6900e-003**		**7.0700e-003**	**7.0700e-003**	**0.0000**	**19.0375**	**19.0375**	**6.0200e-003**	**0.0000**	**19.1640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	6.1000e-004	6.3600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.2363	1.2363	6.0000e-005	0.0000	1.2376
Total	**3.9000e-004**	**6.1000e-004**	**6.3600e-003**	**2.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.1000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.2363**	**1.2363**	**6.0000e-005**	**0.0000**	**1.2376**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0245	0.0246	4.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	3.4043	3.4043	2.9000e-004	0.0000	3.4104
Total	**0.3869**	**0.0245**	**0.0246**	**4.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**3.4043**	**3.4043**	**2.9000e-004**	**0.0000**	**3.4104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	9.4000e-004	9.8200e-003	3.0000e-005	2.4100e-003	2.0000e-005	2.4300e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	1.9087	1.9087	9.0000e-005	0.0000	1.9106
Total	**6.0000e-004**	**9.4000e-004**	**9.8200e-003**	**3.0000e-005**	**2.4100e-003**	**2.0000e-005**	**2.4300e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**1.9087**	**1.9087**	**9.0000e-005**	**0.0000**	**1.9106**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0245	0.0246	4.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	3.4043	3.4043	2.9000e-004	0.0000	3.4104
Total	**0.3869**	**0.0245**	**0.0246**	**4.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**3.4043**	**3.4043**	**2.9000e-004**	**0.0000**	**3.4104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	9.4000e-004	9.8200e-003	3.0000e-005	2.4100e-003	2.0000e-005	2.4300e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	1.9087	1.9087	9.0000e-005	0.0000	1.9106
Total	**6.0000e-004**	**9.4000e-004**	**9.8200e-003**	**3.0000e-005**	**2.4100e-003**	**2.0000e-005**	**2.4300e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**1.9087**	**1.9087**	**9.0000e-005**	**0.0000**	**1.9106**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	4.6800e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Mitigated	4.6800e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**4.6800e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**4.6800e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	0.0000	0.0000	0.0000	0.0000
Mitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Commercial Development-2020 NAT

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	673.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Operation run only

Off-road Equipment - Operation run only

On-road Fugitive Dust - Operation run only

Vehicle Trips - Trip rates based on ITE Trip Generation Handbook, 9th edition

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Area Coating -

Energy Use - used historical data

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	LightingElect	0.88	0.88
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00
tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	673.35
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	204.47	152.84
tblVehicleTrips	SU_TR	166.88	152.84
tblVehicleTrips	WD_TR	542.60	152.84

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1196	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003
Energy	0.0698	0.6342	0.5328	3.8100e-003		0.0482	0.0482		0.0482	0.0482	0.0000	1,854.2593	1,854.2593	0.0634	0.0230	1,862.7286
Mobile	9.8480	19.6885	79.2268	0.1258	2.9091	0.5776	3.4867	0.8493	0.5776	1.4269	0.0000	4,714.3787	4,714.3787	0.5091	0.0000	4,725.0705
Waste						0.0000	0.0000		0.0000	0.0000	37.0418	0.0000	37.0418	2.1891	0.0000	83.0130
Water						0.0000	0.0000		0.0000	0.0000	1.9113	25.9834	27.8947	0.1974	4.8700e-003	33.5496
Total	**11.0373**	**20.3229**	**79.7655**	**0.1296**	**2.9091**	**0.6258**	**3.5349**	**0.8493**	**0.6258**	**1.4751**	**38.9531**	**6,594.6304**	**6,633.5835**	**2.9591**	**0.0279**	**6,704.3717**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1196	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003
Energy	0.0698	0.6342	0.5328	3.8100e-003		0.0482	0.0482		0.0482	0.0482	0.0000	1,854.2593	1,854.2593	0.0634	0.0230	1,862.7286
Mobile	9.8480	19.6885	79.2268	0.1258	2.9091	0.5776	3.4867	0.8493	0.5776	1.4269	0.0000	4,714.3787	4,714.3787	0.5091	0.0000	4,725.0705
Waste						0.0000	0.0000		0.0000	0.0000	37.0418	0.0000	37.0418	2.1891	0.0000	83.0130
Water						0.0000	0.0000		0.0000	0.0000	1.9113	25.9834	27.8947	0.1974	4.8600e-003	33.5465
Total	**11.0373**	**20.3229**	**79.7655**	**0.1296**	**2.9091**	**0.6258**	**3.5349**	**0.8493**	**0.6258**	**1.4751**	**38.9531**	**6,594.6304**	**6,633.5835**	**2.9590**	**0.0279**	**6,704.3686**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.8480	19.6885	79.2268	0.1258	2.9091	0.5776	3.4867	0.8493	0.5776	1.4269	0.0000	4,714.3787	4,714.3787	0.5091	0.0000	4,725.0705
Unmitigated	9.8480	19.6885	79.2268	0.1258	2.9091	0.5776	3.4867	0.8493	0.5776	1.4269	0.0000	4,714.3787	4,714.3787	0.5091	0.0000	4,725.0705

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,445.44	2,445.44	2445.44	1,459,621	1,459,621
Fast Food Restaurant w/o Drive Thru	716.00	696.00	500.00	1,235,649	1,235,649
Fast Food Restaurant with Drive Thru	2,698.89	3,927.84	2952.40	3,063,155	3,063,155
High Turnover (Sit Down Restaurant)	572.18	712.67	593.28	811,239	811,239
Hotel	817.00	819.00	595.00	1,874,508	1,874,508
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	7,249.51	8,600.95	7,086.12	8,444,172	8,444,172

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456144	0.092147	0.224959	0.119586	0.030381	0.008428	0.018751	0.036982	0.000674	0.000872	0.007004	0.001028	0.003044

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,163.8146	1,163.8146	0.0501	0.0104	1,168.0821
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,163.8146	1,163.8146	0.0501	0.0104	1,168.0821
NaturalGas Mitigated	0.0698	0.6342	0.5328	3.8100e-003		0.0482	0.0482		0.0482	0.0482	0.0000	690.4446	690.4446	0.0132	0.0127	694.6465
NaturalGas Unmitigated	0.0698	0.6342	0.5328	3.8100e-003		0.0482	0.0482		0.0482	0.0482	0.0000	690.4446	690.4446	0.0132	0.0127	694.6465

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	1.51966e+006	8.1900e-003	0.0745	0.0626	4.5000e-004		5.6600e-003	5.6600e-003		5.6600e-003	5.6600e-003	0.0000	81.0951	81.0951	1.5500e-003	1.4900e-003	81.5886
High Turnover (Sit Down Restaurant)	1.25708e+006	6.7800e-003	0.0616	0.0518	3.7000e-004		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	67.0823	67.0823	1.2900e-003	1.2300e-003	67.4906
Hotel	9.8765e+006	0.0533	0.4841	0.4067	2.9000e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.0479	527.0479	0.0101	9.6600e-003	530.2554
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	5850.29	3.0000e-005	2.9000e-004	2.4000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.3122	0.3122	1.0000e-005	1.0000e-005	0.3141
Fast Food Restaurant w/o Drive Thru	279350	1.5100e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.9072	14.9072	2.9000e-004	2.7000e-004	14.9979
Total		**0.0698**	**0.6342**	**0.5328**	**3.8000e-003**		**0.0482**	**0.0482**		**0.0482**	**0.0482**	**0.0000**	**690.4446**	**690.4446**	**0.0132**	**0.0127**	**694.6465**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	1.51966e+006	8.1900e-003	0.0745	0.0626	4.5000e-004		5.6600e-003	5.6600e-003		5.6600e-003	5.6600e-003	0.0000	81.0951	81.0951	1.5500e-003	1.4900e-003	81.5886
High Turnover (Sit Down Restaurant)	1.25708e+006	6.7800e-003	0.0616	0.0518	3.7000e-004		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	67.0823	67.0823	1.2900e-003	1.2300e-003	67.4906
Hotel	9.8765e+006	0.0533	0.4841	0.4067	2.9000e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.0479	527.0479	0.0101	9.6600e-003	530.2554
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	5850.29	3.0000e-005	2.9000e-004	2.4000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.3122	0.3122	1.0000e-005	1.0000e-005	0.3141
Fast Food Restaurant w/o Drive Thru	279350	1.5100e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.9072	14.9072	2.9000e-004	2.7000e-004	14.9979
Total		**0.0698**	**0.6342**	**0.5328**	**3.8000e-003**		**0.0482**	**0.0482**		**0.0482**	**0.0482**	**0.0000**	**690.4446**	**690.4446**	**0.0132**	**0.0127**	**694.6465**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	37473.5	11.4454	4.9000e-004	1.0000e-004	11.4874
Fast Food Restaurant w/o Drive Thru	54120	16.5297	7.1000e-004	1.5000e-004	16.5903
Fast Food Restaurant with Drive Thru	294413	89.9215	3.8700e-003	8.0000e-004	90.2512
High Turnover (Sit Down Restaurant)	243540	74.3836	3.2000e-003	6.6000e-004	74.6563
Hotel	3.09857e+006	946.3845	0.0408	8.4300e-003	949.8547
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	82344	25.1500	1.0800e-003	2.2000e-004	25.2423
Total		**1,163.8146**	**0.0501**	**0.0104**	**1,168.0821**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	37473.5	11.4454	4.9000e-004	1.0000e-004	11.4874
Fast Food Restaurant w/o Drive Thru	54120	16.5297	7.1000e-004	1.5000e-004	16.5903
Fast Food Restaurant with Drive Thru	294413	89.9215	3.8700e-003	8.0000e-004	90.2512
High Turnover (Sit Down Restaurant)	243540	74.3836	3.2000e-003	6.6000e-004	74.6563
Hotel	3.09857e+006	946.3845	0.0408	8.4300e-003	949.8547
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	82344	25.1500	1.0800e-003	2.2000e-004	25.2423
Total		**1,163.8146**	**0.0501**	**0.0104**	**1,168.0821**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1196	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003
Unmitigated	1.1196	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1917					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003
Total	**1.1196**	**7.0000e-005**	**5.9500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**4.0000e-005**	**0.0000**	**9.9700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1917					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	7.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	4.0000e-005	0.0000	9.9700e-003
Total	**1.1196**	**7.0000e-005**	**5.9500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**4.0000e-005**	**0.0000**	**9.9700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	27.8947	0.1974	4.8600e-003	33.5465
Unmitigated	27.8947	0.1974	4.8700e-003	33.5496

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	1.0665	5.5000e-003	1.4000e-004	1.2246
Fast Food Restaurant w/o Drive Thru	0.303534 / 0.0193745	1.3692	9.9500e-003	2.4000e-004	1.6540
Fast Food Restaurant with Drive Thru	1.65122 / 0.105397	7.4484	0.0541	1.3300e-003	8.9975
High Turnover (Sit Down Restaurant)	1.3659 / 0.0871852	6.1613	0.0448	1.1000e-003	7.4428
Hotel	2.53668 / 0.281853	11.8494	0.0831	2.0500e-003	14.2308
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**27.8948**	**0.1974**	**4.8600e-003**	**33.5496**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	1.0665	5.4900e-003	1.4000e-004	1.2245
Fast Food Restaurant w/o Drive Thru	0.303534 / 0.0193745	1.3692	9.9400e-003	2.4000e-004	1.6538
Fast Food Restaurant with Drive Thru	1.65122 / 0.105397	7.4484	0.0541	1.3300e-003	8.9967
High Turnover (Sit Down Restaurant)	1.3659 / 0.0871852	6.1613	0.0448	1.1000e-003	7.4421
Hotel	2.53668 / 0.281853	11.8494	0.0831	2.0500e-003	14.2295
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**27.8948**	**0.1974**	**4.8600e-003**	**33.5465**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	37.0418	2.1891	0.0000	83.0130
Mitigated	37.0418	2.1891	0.0000	83.0130

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.2406
Fast Food Restaurant with Drive Thru	62.66	12.7194	0.7517	0.0000	28.5050
High Turnover (Sit Down Restaurant)	53.55	10.8702	0.6424	0.0000	24.3607
Hotel	54.75	11.1138	0.6568	0.0000	24.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**37.0418**	**2.1891**	**0.0000**	**83.0130**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.2406
Fast Food Restaurant with Drive Thru	62.66	12.7194	0.7517	0.0000	28.5050
High Turnover (Sit Down Restaurant)	53.55	10.8702	0.6424	0.0000	24.3607
Hotel	54.75	11.1138	0.6568	0.0000	24.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**37.0418**	**2.1891**	**0.0000**	**83.0130**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Commercial Development-2020

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	4.19	1000sqft	0.10	4,188.00	0
Parking Lot	235.00	Space	2.11	94,000.00	0
Fast Food Restaurant w/o Drive Thru	1.00	1000sqft	0.02	1,000.00	0
Fast Food Restaurant with Drive Thru	5.44	1000sqft	0.12	5,440.00	0
High Turnover (Sit Down Restaurant)	4.50	1000sqft	0.10	4,500.00	0
Hotel	100.00	Room	2.84	145,200.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	2,258.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Acreage:5.339

Construction Phase - Operation run only

Off-road Equipment - Operation run only

On-road Fugitive Dust - Operation run only

Vehicle Trips - Trip rates based on ITE Trip Generation Handbook, 9th Edition

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Area Coating - Based on updated Rule 1113-Default coatings 50 g/L low VOC levels

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	7.91	6.19
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	81.74	68.01

tblEnergyUse	T24NG	58.04	48.29
tblLandUse	LandUseSquareFeet	4,190.00	4,188.00
tblLandUse	LotAcreage	3.33	2.84
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	204.47	152.84
tblVehicleTrips	SU_TR	166.88	152.84
tblVehicleTrips	WD_TR	542.60	152.84

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0810	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003
Energy	0.0572	0.5200	0.4368	3.1200e-003		0.0395	0.0395		0.0395	0.0395	0.0000	1,274.6906	1,274.6906	0.0549	0.0195	1,281.8827
Mobile	3.0535	5.7889	25.6908	0.0494	3.1989	0.0766	3.2756	0.8557	0.0707	0.9263	0.0000	3,480.6371	3,480.6371	0.1294	0.0000	3,483.3553
Waste						0.0000	0.0000		0.0000	0.0000	37.0418	0.0000	37.0418	2.1891	0.0000	83.0130
Water						0.0000	0.0000		0.0000	0.0000	1.9113	18.0172	19.9286	0.1974	4.8700e-003	25.5834
Total	**4.1916**	**6.3089**	**26.1323**	**0.0525**	**3.1989**	**0.1162**	**3.3151**	**0.8557**	**0.1102**	**0.9659**	**38.9531**	**4,773.3539**	**4,812.3071**	**2.5709**	**0.0244**	**4,873.8440**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9660	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003
Energy	0.0572	0.5200	0.4368	3.1200e-003		0.0395	0.0395		0.0395	0.0395	0.0000	1,274.6906	1,274.6906	0.0549	0.0195	1,281.8827
Mobile	3.0535	5.7889	25.6908	0.0494	3.1989	0.0766	3.2756	0.8557	0.0707	0.9263	0.0000	3,480.6371	3,480.6371	0.1294	0.0000	3,483.3553
Waste						0.0000	0.0000		0.0000	0.0000	37.0418	0.0000	37.0418	2.1891	0.0000	83.0130
Water						0.0000	0.0000		0.0000	0.0000	1.9113	18.0172	19.9286	0.1974	4.8600e-003	25.5804
Total	**4.0766**	**6.3089**	**26.1323**	**0.0525**	**3.1989**	**0.1162**	**3.3151**	**0.8557**	**0.1102**	**0.9659**	**38.9531**	**4,773.3539**	**4,812.3071**	**2.5708**	**0.0243**	**4,873.8409**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0535	5.7889	25.6908	0.0494	3.1989	0.0766	3.2756	0.8557	0.0707	0.9263	0.0000	3,480.6371	3,480.6371	0.1294	0.0000	3,483.3553
Unmitigated	3.0535	5.7889	25.6908	0.0494	3.1989	0.0766	3.2756	0.8557	0.0707	0.9263	0.0000	3,480.6371	3,480.6371	0.1294	0.0000	3,483.3553

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,445.44	2,445.44	2445.44	1,459,621	1,459,621
Fast Food Restaurant w/o Drive Thru	716.00	696.00	500.00	1,235,649	1,235,649
Fast Food Restaurant with Drive Thru	2,698.89	3,927.84	2952.40	3,063,155	3,063,155
High Turnover (Sit Down Restaurant)	572.18	712.67	593.28	811,239	811,239
Hotel	817.00	819.00	595.00	1,874,508	1,874,508
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	7,249.51	8,600.95	7,086.12	8,444,172	8,444,172

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.6283	708.6283	0.0440	9.1100e-003	712.3755
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.6283	708.6283	0.0440	9.1100e-003	712.3755
NaturalGas Mitigated	0.0572	0.5200	0.4368	3.1200e-003		0.0395	0.0395		0.0395	0.0395	0.0000	566.0622	566.0622	0.0109	0.0104	569.5072
NaturalGas Unmitigated	0.0572	0.5200	0.4368	3.1200e-003		0.0395	0.0395		0.0395	0.0395	0.0000	566.0622	566.0622	0.0109	0.0104	569.5072

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	1.43496e+006	7.7400e-003	0.0703	0.0591	4.2000e-004		5.3500e-003	5.3500e-003		5.3500e-003	5.3500e-003	0.0000	76.5751	76.5751	1.4700e-003	1.4000e-003	77.0411
High Turnover (Sit Down Restaurant)	1.18701e+006	6.4000e-003	0.0582	0.0489	3.5000e-004		4.4200e-003	4.4200e-003		4.4200e-003	4.4200e-003	0.0000	63.3434	63.3434	1.2100e-003	1.1600e-003	63.7289
Hotel	7.71738e+006	0.0416	0.3783	0.3178	2.2700e-003		0.0288	0.0288		0.0288	0.0288	0.0000	411.8288	411.8288	7.8900e-003	7.5500e-003	414.3351
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	4472.42	2.0000e-005	2.2000e-004	1.8000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2387	0.2387	0.0000	0.0000	0.2401
Fast Food Restaurant w/o Drive Thru	263780	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0763	14.0763	2.7000e-004	2.6000e-004	14.1620
Total		**0.0572**	**0.5200**	**0.4368**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**	**0.0000**	**566.0622**	**566.0622**	**0.0108**	**0.0104**	**569.5072**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	1.43496e+006	7.7400e-003	0.0703	0.0591	4.2000e-004		5.3500e-003	5.3500e-003		5.3500e-003	5.3500e-003	0.0000	76.5751	76.5751	1.4700e-003	1.4000e-003	77.0411
High Turnover (Sit Down Restaurant)	1.18701e+006	6.4000e-003	0.0582	0.0489	3.5000e-004		4.4200e-003	4.4200e-003		4.4200e-003	4.4200e-003	0.0000	63.3434	63.3434	1.2100e-003	1.1600e-003	63.7289
Hotel	7.71738e+006	0.0416	0.3783	0.3178	2.2700e-003		0.0288	0.0288		0.0288	0.0288	0.0000	411.8288	411.8288	7.8900e-003	7.5500e-003	414.3351
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market With Gas Pumps	4472.42	2.0000e-005	2.2000e-004	1.8000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2387	0.2387	0.0000	0.0000	0.2401
Fast Food Restaurant w/o Drive Thru	263780	1.4200e-003	0.0129	0.0109	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0763	14.0763	2.7000e-004	2.6000e-004	14.1620
Total		**0.0572**	**0.5200**	**0.4368**	**3.1200e-003**		**0.0395**	**0.0395**		**0.0395**	**0.0395**	**0.0000**	**566.0622**	**566.0622**	**0.0108**	**0.0104**	**569.5072**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	32617.1	6.9079	4.3000e-004	9.0000e-005	6.9444
Fast Food Restaurant w/o Drive Thru	49100	10.3987	6.5000e-004	1.3000e-004	10.4537
Fast Food Restaurant with Drive Thru	267104	56.5691	3.5100e-003	7.3000e-004	56.8682
High Turnover (Sit Down Restaurant)	220950	46.7943	2.9100e-003	6.0000e-004	47.0417
Hotel	2.69346e+006	570.4393	0.0354	7.3300e-003	573.4558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	82720	17.5190	1.0900e-003	2.3000e-004	17.6116
Total		**708.6283**	**0.0440**	**9.1100e-003**	**712.3755**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	32617.1	6.9079	4.3000e-004	9.0000e-005	6.9444
Fast Food Restaurant w/o Drive Thru	49100	10.3987	6.5000e-004	1.3000e-004	10.4537
Fast Food Restaurant with Drive Thru	267104	56.5691	3.5100e-003	7.3000e-004	56.8682
High Turnover (Sit Down Restaurant)	220950	46.7943	2.9100e-003	6.0000e-004	47.0417
Hotel	2.69346e+006	570.4393	0.0354	7.3300e-003	573.4558
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	82720	17.5190	1.0900e-003	2.3000e-004	17.6116
Total		**708.6283**	**0.0440**	**9.1100e-003**	**712.3755**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9660	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003
Unmitigated	1.0810	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1533					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4000e-004	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003
Total	**1.0810**	**4.0000e-005**	**4.7000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**2.0000e-005**	**0.0000**	**9.6000e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4000e-004	4.0000e-005	4.7000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.0900e-003	9.0900e-003	2.0000e-005	0.0000	9.6000e-003
Total	**0.9660**	**4.0000e-005**	**4.7000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.0900e-003**	**9.0900e-003**	**2.0000e-005**	**0.0000**	**9.6000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.9286	0.1974	4.8600e-003	25.5804
Unmitigated	19.9286	0.1974	4.8700e-003	25.5834

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	0.7558	5.5000e-003	1.4000e-004	0.9139
Fast Food Restaurant w/o Drive Thru	0.303534 / 0.0193745	0.9789	9.9500e-003	2.4000e-004	1.2637
Fast Food Restaurant with Drive Thru	1.65122 / 0.105397	5.3254	0.0541	1.3300e-003	6.8745
High Turnover (Sit Down Restaurant)	1.3659 / 0.0871852	4.4052	0.0448	1.1000e-003	5.6867
Hotel	2.53668 / 0.281853	8.4633	0.0831	2.0500e-003	10.8446
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.9286**	**0.1974**	**4.8600e-003**	**25.5834**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	0.7558	5.4900e-003	1.4000e-004	0.9138
Fast Food Restaurant w/o Drive Thru	0.303534 / 0.0193745	0.9789	9.9400e-003	2.4000e-004	1.2636
Fast Food Restaurant with Drive Thru	1.65122 / 0.105397	5.3254	0.0541	1.3300e-003	6.8737
High Turnover (Sit Down Restaurant)	1.3659 / 0.0871852	4.4052	0.0448	1.1000e-003	5.6860
Hotel	2.53668 / 0.281853	8.4633	0.0831	2.0500e-003	10.8434
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.9286**	**0.1974**	**4.8600e-003**	**25.5804**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	37.0418	2.1891	0.0000	83.0130
Mitigated	37.0418	2.1891	0.0000	83.0130

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.2406
Fast Food Restaurant with Drive Thru	62.66	12.7194	0.7517	0.0000	28.5050
High Turnover (Sit Down Restaurant)	53.55	10.8702	0.6424	0.0000	24.3607
Hotel	54.75	11.1138	0.6568	0.0000	24.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**37.0418**	**2.1891**	**0.0000**	**83.0130**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	11.52	2.3385	0.1382	0.0000	5.2406
Fast Food Restaurant with Drive Thru	62.66	12.7194	0.7517	0.0000	28.5050
High Turnover (Sit Down Restaurant)	53.55	10.8702	0.6424	0.0000	24.3607
Hotel	54.75	11.1138	0.6568	0.0000	24.9066
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**37.0418**	**2.1891**	**0.0000**	**83.0130**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix C:
Noise Impact Analysis

Prepared by Urban Crossroads, Inc.
October 10, 2016

Commercial Development

NOISE IMPACT ANALYSIS

CITY OF RIALTO

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OCTOBER 10, 2016

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TABLE OF CONTENTS

TABLE OF CONTENTS ..... **III**
APPENDICES ..... **IV**
LIST OF EXHIBITS ..... **IV**
LIST OF TABLES ..... **V**
LIST OF ABBREVIATED TERMS ..... **VI**

EXECUTIVE SUMMARY **1**
Off-Site Traffic Noise Analysis 1
On-Site Traffic Noise Analysis 1
Construction Noise and Vibration Analysis 2
Significance Findings & the Renaissance Specific Plan EIR 4

1 INTRODUCTION **7**
1.1 Site Location 7
1.2 Project Description 7

2 FUNDAMENTALS **11**
2.1 Range of Noise 11
2.2 Noise Descriptors 12
2.3 Sound Propagation 12
2.4 Noise Control 13
2.5 Noise Barrier Attenuation 13
2.6 Land Use Compatibility With Noise 14
2.7 Community Response to Noise 14
2.8 Exposure to High Noise Levels 15
2.9 Vibration 15

3 REGULATORY SETTING **19**
3.1 State of California Noise Requirements 19
3.2 State of California Building Standards 19
3.3 City of Rialto General Plan Safety & Noise Element 20
3.4 Construction Noise Standards 22
3.5 Vibration Standards 24
3.6 Renaissance Specific Plan Environmental Impact Report 24

4 SIGNIFICANCE CRITERIA **27**
4.1 Noise-Sensitive Receivers 27
4.2 Non-Noise-Sensitive Receivers 28

5 EXISTING NOISE LEVEL MEASUREMENTS **31**
5.1 Measurement Procedure and Criteria 31
5.2 Noise Measurement Locations 31
5.3 Noise Measurement Results 33

6 METHODS AND PROCEDURES **35**
6.1 FHWA Traffic Noise Prediction Model 35
6.2 Off-Site Traffic Noise Prediction Model Inputs 35
6.3 On-Site Traffic Noise Prediction Model Inputs 38

7 OFF-SITE TRANSPORTATION NOISE IMPACTS 41
7.1 Traffic Noise Contours 41
7.2 Existing Condition Project Traffic Noise Levels 48
7.3 EA 2019 Project Traffic Noise Level Contributions 48
7.4 EAC 2019 Project Traffic Noise Level Contributions 48
7.5 Renaissance Specific Plan EIR Comparison 48
8 ON-SITE TRANSPORTATION NOISE IMPACTS 53
8.1 On-Site Exterior Noise Analysis 53
8.2 On-Site Interior Noise Analysis 54
8.3 Renaissance Specific Plan EIR Comparison 54
9 RECEIVER LOCATIONS 57
10 CONSTRUCTION IMPACTS 59
10.1 Construction Noise Standards 59
10.2 Construction Noise Levels 60
10.3 Construction Reference Noise Levels 60
10.4 Construction Noise Analysis 62
10.5 Construction Noise Thresholds of Significance 67
10.6 Construction Vibration Impacts 67
10.7 Construction Noise and Vibration Abatement Measures 68
10.8 Renaissance Specific Plan EIR Comparison 69
11 REFERENCES 71
12 CERTIFICATION 73

APPENDICES

APPENDIX 3.1: CITY OF RIALTO MUNICIPAL CODE
APPENDIX 3.2: CITY OF FONTANA MUNICIPAL CODE
APPENDIX 5.1: STUDY AREA PHOTOS
APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS
APPENDIX 6.1: SITE PLAN
APPENDIX 7.1: OFF-SITE TRAFFIC NOISE CONTOURS
APPENDIX 8.1: ON-SITE TRAFFIC NOISE CALCULATIONS

LIST OF EXHIBITS

EXHIBIT ES-A: SUMMARY OF RECOMMENDATIONS 5
EXHIBIT 1-A: LOCATION MAP 8
EXHIBIT 1-B: SITE PLAN 9
EXHIBIT 2-A: TYPICAL NOISE LEVELS 11
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION 15
EXHIBIT 2-D: TYPICAL LEVELS OF GROUND-BORNE VIBRATION 17
EXHIBIT 3-A: RIALTO NOISE GUIDELINES FOR LAND USE PLANNING 21
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS 32
EXHIBIT 9-A: RECEIVER LOCATIONS 58

LIST OF TABLES

TABLE ES-1: SUMMARY OF PROJECT & RENAISSANCE SPECIFIC PLAN EIR IMPACTS..... 4
TABLE 3-1: CONSTRUCTION NOISE STANDARDS 23
TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS..... 28
TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY 30
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS 34
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS..... 36
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES 37
TABLE 6-3: TIME OF DAY VEHICLE SPLITS 37
TABLE 6-4: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)..... 38
TABLE 6-5: ON-SITE ROADWAY PARAMETERS 39
TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS 42
TABLE 7-2: EXISTING WITH PROJECT CONDITIONS NOISE CONTOURS..... 43
TABLE 7-3: EA 2019 WITHOUT PROJECT CONDITIONS NOISE CONTOURS..... 44
TABLE 7-4: EA 2019 WITH PROJECT CONDITIONS NOISE CONTOURS..... 45
TABLE 7-5: EAC 2019 WITHOUT PROJECT CONDITIONS NOISE CONTOURS..... 46
TABLE 7-6: EAC 2019 WITH PROJECT CONDITIONS NOISE CONTOURS..... 47
TABLE 7-7: EXISTING OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS..... 49
TABLE 7-8: EA 2019 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS..... 50
TABLE 7-9: EAC 2019 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS..... 51
TABLE 8-1: EXTERIOR NOISE LEVELS (CNEL) 53
TABLE 8-2: FIRST FLOOR INTERIOR NOISE IMPACTS (CNEL)..... 55
TABLE 8-3: SECOND FLOOR INTERIOR NOISE IMPACTS (CNEL) 55
TABLE 8-4: THIRD FLOOR INTERIOR NOISE IMPACTS (CNEL)..... 55
TABLE 8-5: FOURTH FLOOR INTERIOR NOISE IMPACTS (CNEL) 56
TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS 61
TABLE 10-2: SITE PREPARATION EQUIPMENT NOISE LEVELS 62
TABLE 10-3: GRADING EQUIPMENT NOISE LEVELS..... 63
TABLE 10-4: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS..... 64
TABLE 10-5: PAVING EQUIPMENT NOISE LEVELS..... 65
TABLE 10-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS..... 66
TABLE 10-7: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA LEQ) 66
TABLE 10-8: CONSTRUCTION NOISE LEVEL COMPLIANCE 67
TABLE 10-9: CONSTRUCTION EQUIPMENT VIBRATION LEVELS..... 68

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
Leq	Equivalent continuous (average) sound level
Lmax	Maximum level measured over the time interval
Lmin	Minimum level measured over the time interval
mph	Miles per hour
PPV	Peak Particle Velocity
Project	Commercial Development
PTAC	Packaged Terminal Air Conditioners
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
SR-210	State Route 210
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Commercial Development ("Project"). The Project site is located on the southwest corner of Alder Avenue and State Route 210 (SR-210) in the City of Rialto. The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, 5,440 square feet of fast food with drive-through use, and 1,000 square feet of fast food without drive-through use. This study has been prepared to satisfy the City of Rialto noise standards and to ensure that adequate noise abatement measures are incorporated into the Project's development.

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 19 roadway segments surrounding the Project site were estimated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Commercial Development Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (1) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing, Existing plus Ambient Growth (EA) 2019, and EA plus Cumulative (EAC) 2019 conditions. The off-site traffic noise analysis indicates that the Project's contributions to roadway noise levels at adjacent sensitive land uses will be *less than significant* for Existing, Existing plus Ambient Growth (EA) 2019, and EA plus Cumulative (EAC) 2019 conditions.

ON-SITE TRAFFIC NOISE ANALYSIS

The results of this analysis indicate that future vehicle noise from SR-210 is the principal source of community noise that will impact the Project site. The Project will also experience some background traffic noise impacts from the Alder Avenue and Renaissance Parkway, however, the traffic noise from these roads will largely be overshadowed by the traffic noise on SR-210. The on-site noise mitigation measures recommended in this noise analysis have been designed to reduce the interior noise levels to satisfy the City of Rialto transportation related CNEL noise criteria for commercial development. With the recommended noise mitigation measures shown on Exhibit ES-A, the on-site noise impacts will be *less than significant*.

EXTERIOR NOISE MITIGATION

To satisfy the City of Rialto exterior noise level compatibility criteria for general commercial land uses no exterior noise mitigation is required. The on-site noise analysis shows that the exterior noise levels will be *conditionally acceptable* at the hotel, restaurant, and gas station uses with noise levels below 75 dBA CNEL. The outdoor seating areas will experience *conditionally acceptable* noise levels of up to 72.4 dBA CNEL, however, the City of Rialto compatibility criteria

for general commercial land uses does not require any exterior noise mitigation for the outdoor seating areas of the Commercial Development Project.

INTERIOR NOISE MITIGATION

To satisfy the City of Rialto 45 dBA CNEL interior noise level criteria, the hotel building will require a Noise Reduction (NR) of up to 29.2 dBA and a means of mechanical ventilation (e.g. air conditioning). In order to meet the City of Rialto 45 dBA CNEL interior noise standards the Project shall provide the following or equivalent noise mitigation measures:

- Windows: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum sound transmission class (STC) rating of 40.
- Exterior Air Conditioning Units: Any window-mounted air conditioning units used in guest rooms of the hotel building must have a minimum STC rating of 27, however, it is recommended that a minimum STC rating of 30 be used. Alternatively, through-the-wall or Packaged Terminal Air Conditioners (PTAC) may be used with a minimum STC rating of 27.
- Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27.
- Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g. air conditioning) shall be provided which satisfies the requirements of the Uniform Building Code.

With the interior noise mitigation measures provided in this study, the proposed Commercial Development is expected to meet the City of Rialto 45 dBA CNEL interior noise level standards for residential development.

CONSTRUCTION NOISE AND VIBRATION ANALYSIS

Construction noise represents a short-term increase on the ambient noise levels. Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site when certain activities occur at the closest point to the nearby receiver locations from the center of Project construction activity. Using sample reference noise levels to represent the planned construction activities of the Commercial Development site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. The results of the construction noise analysis show that the unmitigated construction noise levels will satisfy the National Institute for Occupational Safety and Health (NIOSH) construction noise level threshold of 85 dBA Leq at the nearby sensitive receiver locations. Therefore, the construction of the Project will result in a *less than significant* impact.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. This analysis shows the construction vibration levels in PPV are expected to approach 0.0001 in/sec at the nearby receiver locations. Based on the County of San Bernardino vibration standards of 0.2 in/sec PPV, the proposed Project construction activities will not include or require equipment, facilities, or activities that would result in a *barely perceptible* human response (annoyance), and therefore, impacts due to vibration are considered *less than significant.*

CONSTRUCTION NOISE AND VIBRATION ABATEMENT MEASURES

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following practices would reduce any noise level increases produced by the construction equipment to the nearby noise-sensitive residential land uses. Further, the noise abatement measures identified below are based on the *Renaissance Specific Plan EIR* Mitigation Measures N-01 to N-05, and N-07, however, since the unmitigated Project-related construction noise levels will be *less than significant* the Mitigation Measures are not required. Therefore, the construction noise and vibration abatement measures in Section 10.7 of this report are provided consistent with the *Renaissance Specific Plan EIR* Mitigation Measures only where applicable (e.g. permitted hours of construction activity and properly installed and effective mufflers):

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays (*Renaissance Specific Plan EIR,* Mitigation Measure N-01). The Project construction supervisor shall ensure compliance with the permitted construction hours.
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards (*Renaissance Specific Plan EIR,* Mitigation Measure N-02). The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

SIGNIFICANCE FINDINGS & THE RENAISSANCE SPECIFIC PLAN EIR

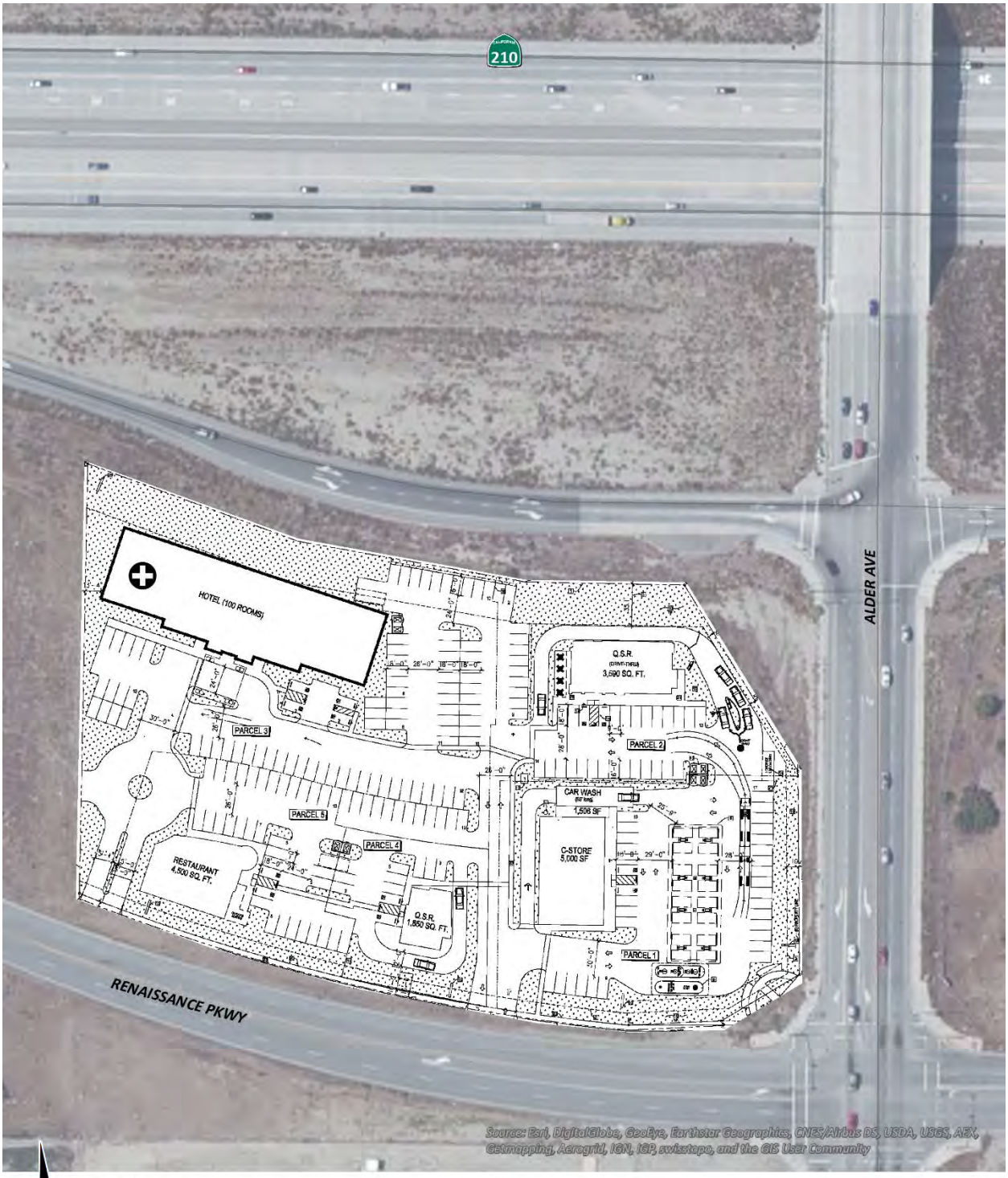
The results of this Commercial Development Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact before and after any required mitigation measures. In addition, Table ES-1 shows the *Renaissance Specific Plan Environmental Impact Report* (EIR) findings of significance providing a comparison with the potential impacts of the Project. Based on the Table ES-1 comparison, the Project is shown to contribute *less than significant* noise impacts under all analysis scenarios. The *Renaissance Specific Plan EIR*, however, identifies potentially significant noise levels requiring Mitigation Measures to reduce them to *less than significant* levels. Further, the *Renaissance Specific Plan EIR* identifies a *significant and unavoidable* off-site traffic noise level impact. (2)

TABLE ES-1: SUMMARY OF PROJECT & RENAISSANCE SPECIFIC PLAN EIR IMPACTS

Analysis	Report Section	Significance Findings of Project		Significance Findings of Renaissance SP EIR[1]	
		Unmitigated	Mitigated	Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Less Than Significant*	*n/a*	*Potentially Significant*	*Significant & Unavoidable*
On-Site Traffic Noise	8	*Potentially Significant*	*Less Than Significant*	*Potentially Significant*	*Less Than Significant*
Construction Noise	10	*Less Than Significant*	*n/a*	*Potentially Significant*	*Less Than Significant*
Construction Vibration		*Less Than Significant*	*n/a*	*Potentially Significant*	*Less Than Significant*

[1] Source: City of Rialto Renaissance Specific Plan (SP) Environmental Impact Report (EIR), October 2010.
"n/a" = No mitigation required since the impact will be less than significant.

EXHIBIT ES-A: SUMMARY OF RECOMMENDATIONS



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LEGEND:

⊕ Hotel building requiring upgraded windows with a minimum STC rating of 40 and a means of mechanical ventilation (e.g. air conditioning).

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Commercial Development ("Project"). This noise study describes the proposed Project, provides information regarding noise fundamentals, outlines the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related short-term construction noise impacts.

1.1 SITE LOCATION

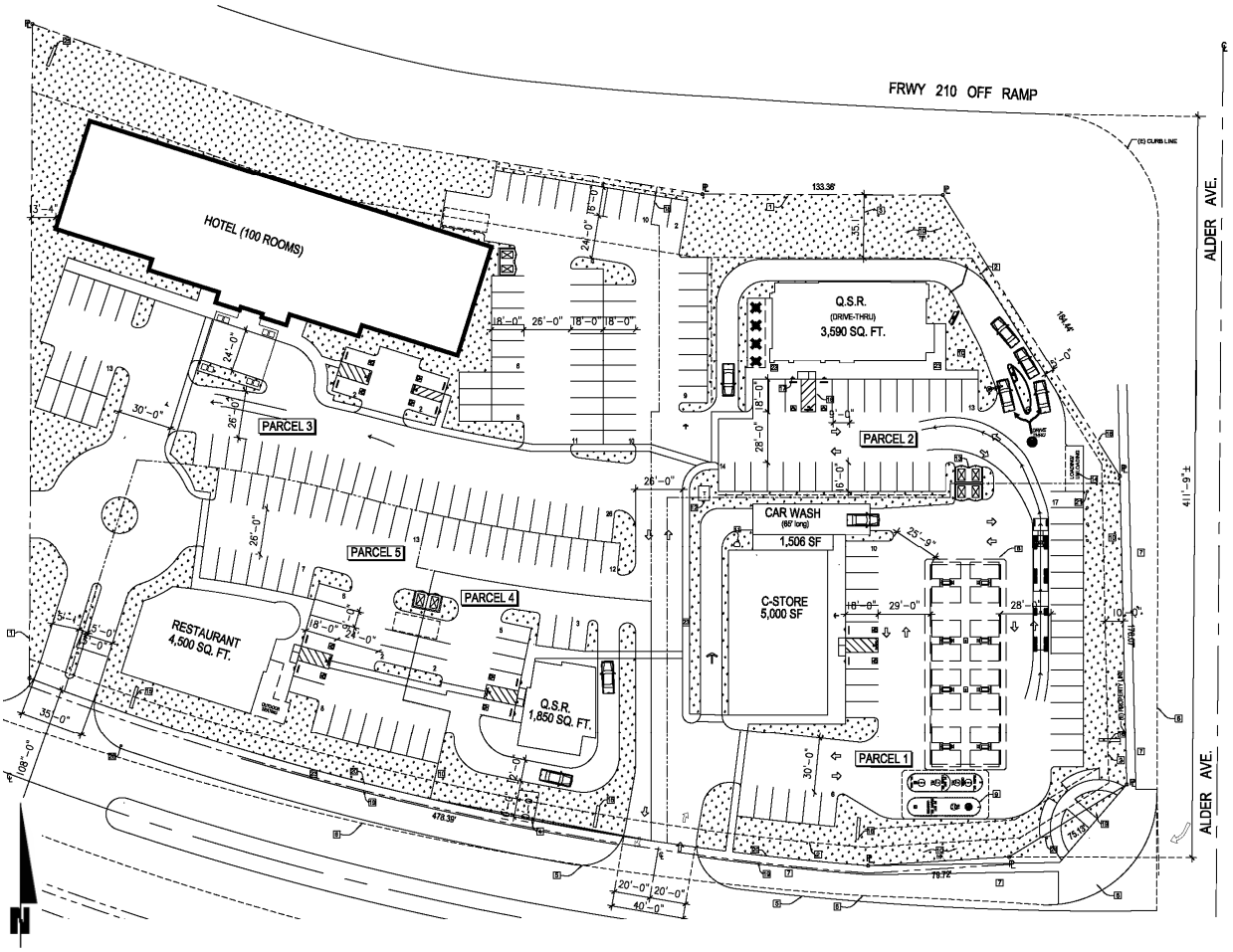
The proposed Commercial Development Project is located on the southwest corner of Alder Avenue and State Route 210 (SR-210) in the City of Rialto, as shown on Exhibit 1-A. SR-210 is located approximately 200 feet north of the Project site. Existing residential land uses in the Project study area are located west of Palmetto Avenue on Highland Avenue, and south of the Project site on Alder Avenue. The Rialto Municipal Airport, which was permanently closed at the time this report was prepared, is located approximately 0.5 miles southeast of the Project site. Existing industrial land uses are located south of the Project site on both sides of Alder Avenue.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, 5,440 square feet of fast food with drive-through use, and 1,000 square feet of fast food without drive-through use, as shown on Exhibit 1-B. For the purposes of this noise study, the Project is anticipated to be developed in a single phase with an anticipated opening year of 2019.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN



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2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (3) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Day-Night Average Noise Level (LDN) and the Community Noise Equivalent Level (CNEL), representing a composite twenty-four hour noise level is utilized. The LDN and CNEL are weighted averages of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The LDN time of day corrections include the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. The CNEL time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., in addition to the corrections for the LDN. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. LDN and CNEL do not represent the actual sound level heard at any particular time, but rather represent the total sound exposure. The City of Rialto relies on the 24-hour LDN level to assess land use compatibility with transportation related noise sources, however, this analysis uses the CNEL noise level to apply the more conservative evening hour corrections to the 24-hour noise levels.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor.

Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (5)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7 COMMUNITY RESPONSE TO NOISE

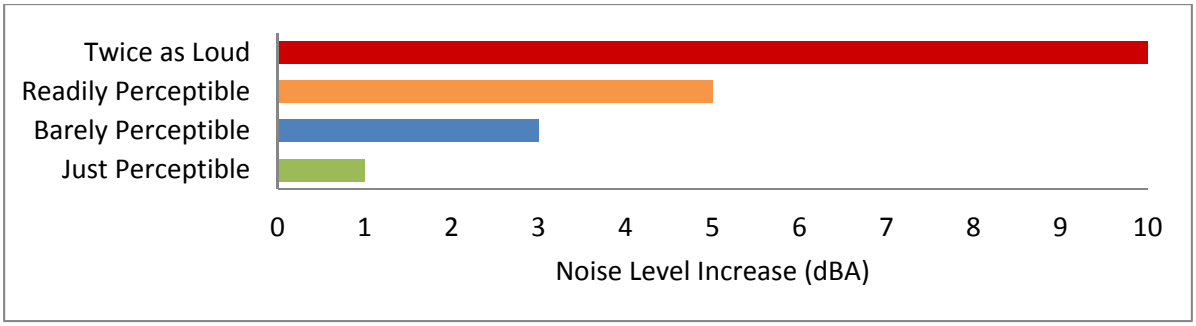
Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (7) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (7)

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (5)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



2.8 EXPOSURE TO HIGH NOISE LEVELS

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA doubles the amount of the noise and halves the recommended amount of exposure time. (8)

OSHA has implemented requirements to protect all workers in general industry (e.g. the manufacturing and the service sectors) for employers to implement a Hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an eight-hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and free hearing protection, provide training, and conduct evaluations of the adequacy of the hearing protectors in use unless changes to tools, equipment and schedules are made so that they are less noisy and worker exposure to noise is less than the 85 dBA. This noise study does not evaluate the noise exposure of workers within a project or construction site based on CEQA requirements, and instead, evaluates Project-related operational and construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment. (9)

2.9 VIBRATION

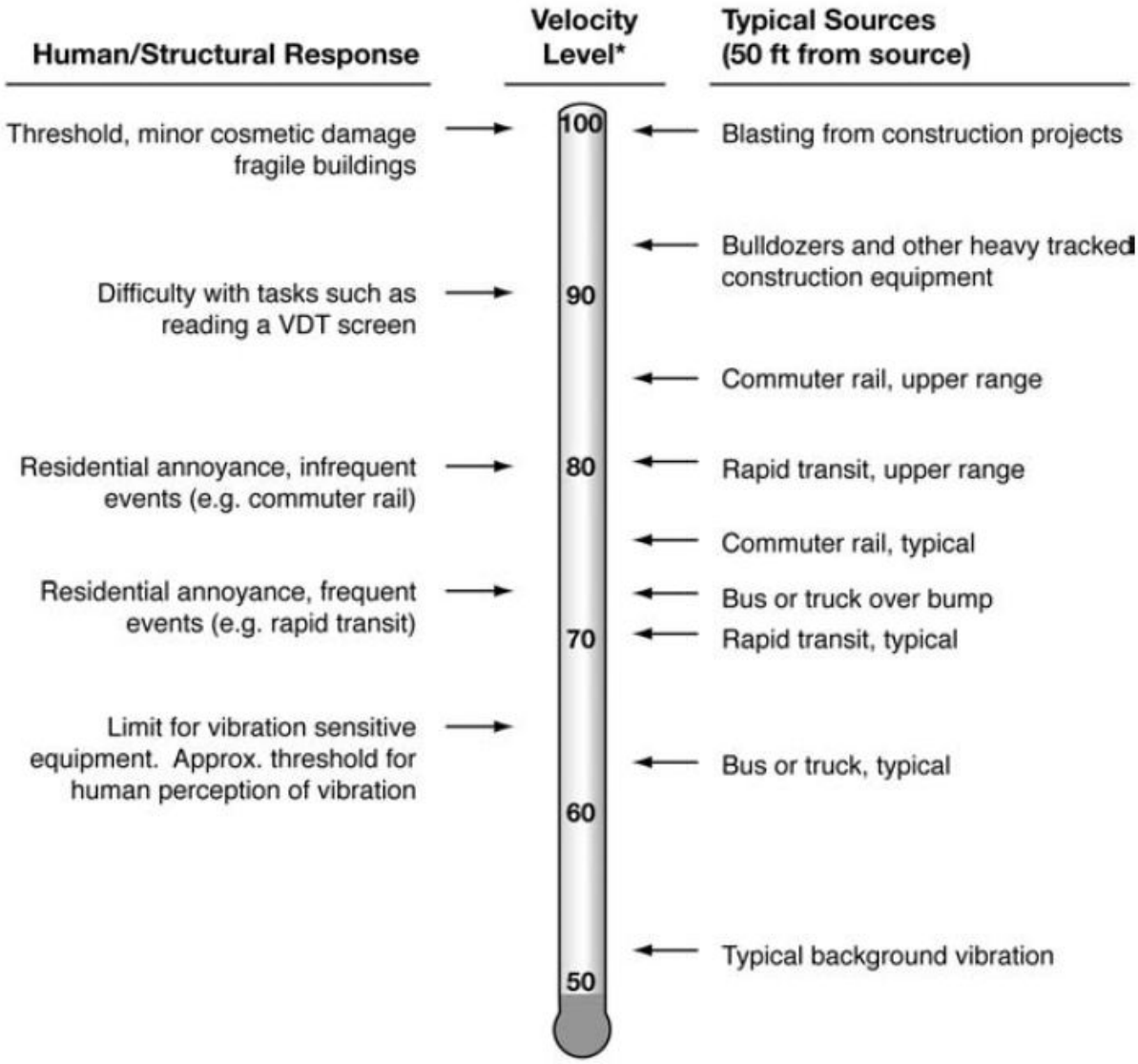
According to the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (10), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such

as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings, but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal, and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-D illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-D: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. (11) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including the potential environmental noise impacts.

3.2 STATE OF CALIFORNIA BUILDING STANDARDS

The State of California standards for residential and non-residential building construction are described below.

3.2.1 STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

3.2.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2014 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.506 on Environmental Comfort. (12) These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

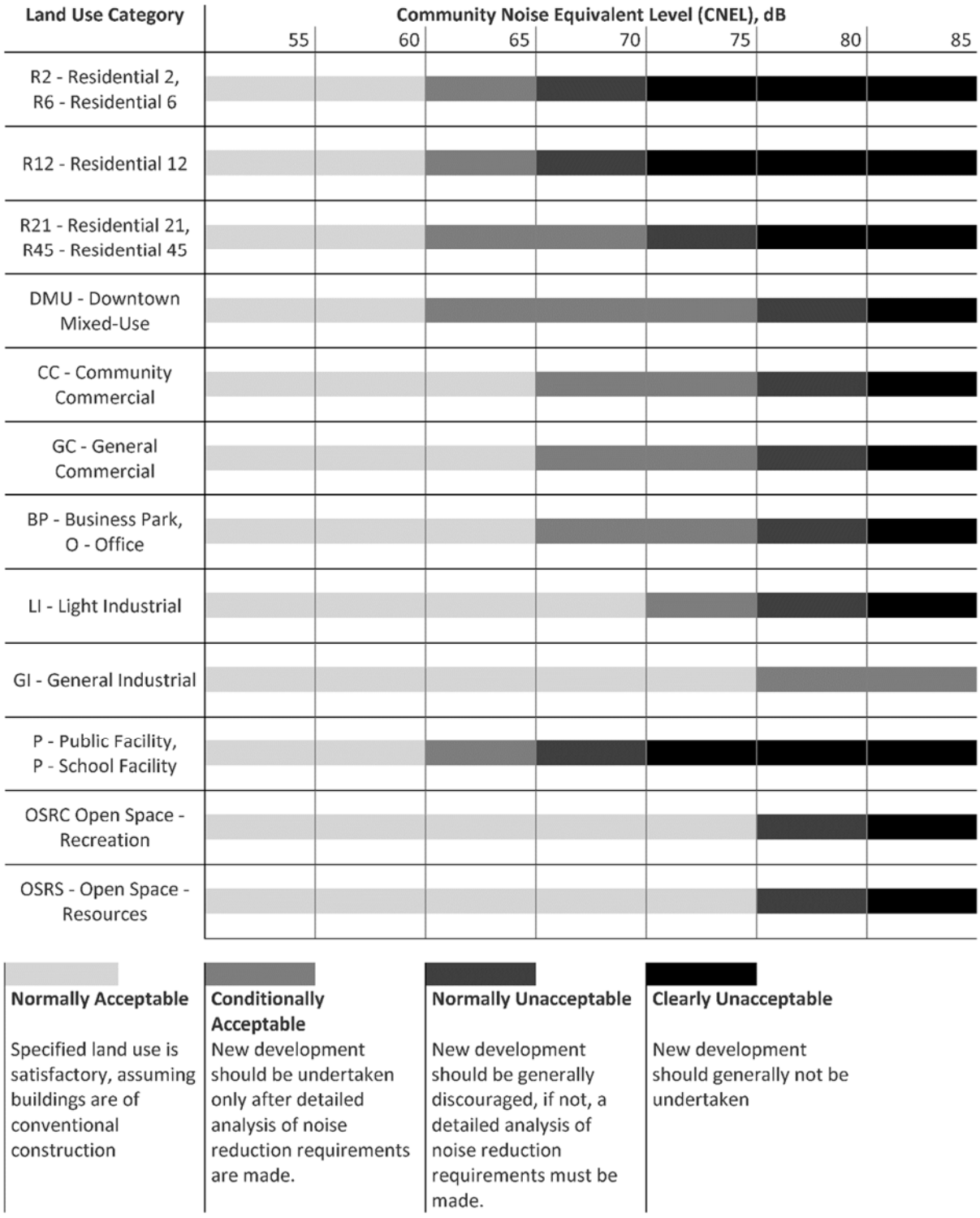
3.3 CITY OF RIALTO GENERAL PLAN SAFETY & NOISE ELEMENT

The City of Rialto General Plan Safety & Noise Element establishes policies to guard against the creation of any new noise and land use conflicts, and to minimize the impact of existing noise sources on the community. (13) The Noise Element does not contain specific transportation-related noise standards, however, it does provide land use compatibility guidelines for future development and the future noise contour boundaries for major roadways in the City of Rialto.

The noise criteria identified in the City of Rialto Safety & Noise Element (Exhibit 5.5) are guidelines to evaluate the land use compatibility of transportation-related noise. The compatibility criteria, shown on Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

The *Rialto Noise Guidelines for Land Use Planning* matrix indicates that general commercial land uses, such as the Project site, are considered *normally acceptable* with exterior noise levels below 65 dBA CNEL, and *conditionally acceptable* with noise levels below 75 dBA CNEL. For *conditionally acceptable* land uses, *new development should be undertaken only after detailed analysis of noise reduction requirements are made.* (13) The City of Rialto General Plan Land Use section defines general commercial land use as *general retail, commercial services, restaurants, lodging, commercial recreation, professional offices, and medical and financial institutions*. For the purposes of the on-site noise analysis, the exterior noise level criteria from the City of Rialto Safety & Noise Element for general commercial land use shall apply to the hotel, restaurant, and gas station uses at the Project site. Further, general commercial land uses with *conditionally acceptable* exterior noise levels below 75 dBA CNEL must satisfy the Measure 8.94 *Noise Insulation Standards* from the City of Rialto General Plan Implementation Plan. Measure 8.94 identifies an interior noise level standard of 45 dBA CNEL which is consistent with the Title 24 State of California noise standards, previously discussed in Section 3.2.

EXHIBIT 3-A: RIALTO NOISE GUIDELINES FOR LAND USE PLANNING



Source: City of Rialto General Plan Safety & Noise Element, Exhibit 5.5.

3.4 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Commercial Development Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. Since the closest sensitive receiver locations to the Project site are located within the City of Fontana, this analysis presents the appropriate construction noise standards for the City of Rialto and the adjacent jurisdiction of the City of Fontana. However, the permitted hours of construction for the City of Rialto are the only applicable hour restrictions for the Project since the construction activity will be within the City of Rialto jurisdiction. Table 3-1 shows the construction standards of each jurisdiction.

3.4.1 CITY OF RIALTO CONSTRUCTION NOISE STANDARDS

The City of Rialto Municipal Code, Section 9.50.070, states that construction activities are permitted between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays. (14) While the City establishes limits to the hours during which construction activity may take place, neither the City's General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*.

3.4.2 CITY OF FONTANA CONSTRUCTION NOISE STANDARDS

The City of Fontana set restrictions to control noise impacts associated with the construction of the proposed Project. According to Section 18-63(b)(7), *Construction or repairing of buildings or structures,* construction activity is limited: *between the hours of 7:00 a.m. and 6:00 p.m. on weekdays and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays except in the case of urgent necessity*. (15) Like the City of Rialto, the City of Fontana establishes limits to the hours during which construction activity may take place, but neither its General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*.

3.4.3 CONSTRUCTION NOISE LEVEL THRESHOLD

To evaluate whether the Project will generate a substantial periodic increase in short-term noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). (16) A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for

more than 15 minutes per day. (16) For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA Leq is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time period, they are expressed as Leq noise levels. Therefore, the noise level threshold of 85 dBA Leq over a period of eight hours or more is used to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations.

3.4.4 CONSTRUCTION-RELATED HEARING CONSERVATION

The Occupational Safety and Health Administration (OSHA) requires hearing protection be provided by employers in workplaces where the noise levels may, over long periods of exposure to high noise levels, endanger the hearing of their employees. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (8) This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment. (9)

TABLE 3-1: CONSTRUCTION NOISE STANDARDS

Jurisdiction	Time Period	Permitted Hours of Construction Activity
City of Rialto[1]	October 1 - April 30	7:00 a.m. to 5:30 p.m. Mondays to Fridays
	May 1 - September 30	6:00 a.m. to 7:00 p.m. Mondays to Fridays
	Any Time of Year	8:00 a.m. to 5:00 p.m. Saturdays; no activity on Sundays & holidays.
City of Fontana[2]	Any Time of Year	7:00 a.m. to 6:00 p.m. on weekdays, and 8:00 a.m. to 5:00 p.m. on Saturdays.

[1] Source: City of Rialto Municipal Code, Section 9.50.070 (Appendix 3.1).
[2] Source: City of Fontana Municipal Code, Section 18-62 (Appendix 3.2).

3.5 VIBRATION STANDARDS

To describe the potential Project-related operational and construction vibration levels this analysis presents the appropriate vibration standards for the City of Rialto and the adjacent jurisdiction of the City of Fontana. However, the City of Rialto General Plan and Municipal Code do not identify specific vibration level standards. The City of Fontana Zoning and Development Code establishes vibration standards in Section 30-183 which state: *No use shall create or cause to be created any activity that causes a vibration that can be felt beyond the property line with or without the aid of an instrument*. (17) To quantitatively assess the potential vibration impacts from the Project site at nearby sensitive receivers, this analysis relies on the County of San Bernardino vibration standards.

To assess the potential impacts on sensitive receivers within the Project study area, this analysis will use the County of San Bernardino vibration standards found in Section 83.01.090 of the Development Code. (18) The County's Development Code states that: *No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths inches per second measured at or beyond the lot line.* (18) Therefore, for the purposes of this analysis, the vibration level threshold for Project-related operational and construction vibration levels is a 0.2 in/sec peak particle velocity (PPV).

3.6 RENAISSANCE SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT

Section 4.11 of the *Renaissance Specific Plan Environmental Impact Report* (EIR) includes the findings of significance related to potential noise impacts associated with the *Renaissance Specific Plan*. (2) For the purposes of this noise study, the *Renaissance Specific Plan EIR* findings of significance and mitigation measures are presented below for comparison with the potential impacts from the Project.

3.6.1 OFF-SITE TRAFFIC NOISE IMPACTS

The *Renaissance Specific Plan EIR* found that under Year 2011, 2015, and 2020 conditions some roadway segments would experience potentially significant noise impacts due to the off-site traffic generated by the *Renaissance Specific Plan*. According to the *Renaissance Specific Plan,* the off-site traffic noise impacts are considered to be *significant and unavoidable*. (2) Mitigation Measure N-06, described below, while not specific to off-site traffic noise levels in the *Renaissance Specific Plan EIR,* is identified to reduce the traffic noise impacts to future residential and commercial land uses within the *Renaissance Specific Plan*.

> *N-06 The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and any proposed commercial retail uses located adjacent to Alder Avenue, Baseline Road, or SR-210. Each noise impact analysis shall identify potential transportation noise impacts and provide mitigation, if necessary, to reduce the traffic noise impacts to within the City noise level standards.*

3.6.2 ON-SITE TRAFFIC NOISE IMPACTS

The following Mitigation Measures are identified in the *Renaissance Specific Plan EIR* to reduce the on-site traffic noise level impacts to future land uses, such as the Project, within the Renaissance Specific Plan. While off-site traffic noise level increases are identified as a *significant and unavoidable* impact in the *Renaissance Specific Plan EIR*, Mitigation Measure N-06 is used to reduce the future on-site noise levels at the proposed land uses within the *Renaissance Specific Plan*.

N-06 The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and any proposed commercial retail uses located adjacent to Alder Avenue, Baseline Road, or SR-210. Each noise impact analysis shall identify potential transportation noise impacts and provide mitigation, if necessary, to reduce the traffic noise impacts to within the City noise level standards.

3.6.3 CONSTRUCTION NOISE AND VIBRATION IMPACTS

With Mitigation Measures N-01 to N-05, the *Renaissance Specific Plan EIR* shows a *less than significant* noise impact due to construction of the proposed *Renaissance Specific Plan* land uses. Further, the impacts from construction-related vibration are also considered *less than significant* with the implementation of Mitigation Measure N-07, which requires a vibration impact analysis for future developments to satisfy the County of San Bernardino vibration level standards. Consistent with the *Renaissance Specific Plan EIR,* this noise study uses the County of San Bernardino vibration level standards to analyze the potential vibration impacts from due to Project construction. The *Renaissance Specific Plan* Mitigation Measures for construction noise and vibration are provided below:

N-01 Construction activities shall be limited to the City's allowable hours of construction activities shown in Table 4.11-2 in accordance with the City's Noise Ordinance.

N-02 All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

N-03 Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from any nearby noise sensitive uses, unless safety or technical factors take precedence.

N-04 Stationary combustion equipment such as pumps or generators operating within 300 feet of any nearby noise sensitive uses shall be shielded with a noise protection barrier.

N-05 The City shall require that a noise impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed noise sensitive land uses. Each noise impact analysis shall identify potential construction noise impacts and provide mitigation, if necessary to reduce the construction noise impacts to within the City noise level standards.

N-07 The City shall require that a vibration impact analysis be prepared for all proposed residential subdivisions within the Specific Plan and for any commercial or business developments located adjacent to existing or proposed vibration sensitive land uses. Each vibration impact analysis shall identify potential construction-related vibration impacts and provide mitigation, if necessary, to reduce the construction to within the County vibration level standards.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

C. A substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project; or

D. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

F. For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

While the CEQA Guidelines and the City of Rialto General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under CEQA Guideline A, they do not define the levels at which increases are considered substantial for use under Guidelines B, C, and D. CEQA Guidelines E and F apply to nearby public and private airports, if any, and the Project's land use compatibility, as discussed below.

The closest airport which would require additional noise analysis under CEQA guidelines E and F is the Rialto Municipal Airport, however, airport operations have been permanently ceased at the time of this report. Therefore, the potential impacts under CEQA guidelines E and F are considered to be *less than significant*, and are not further analyzed in this noise study.

4.1 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels and the location of noise-sensitive receivers in order to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (19)

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. With this in mind, the Federal Interagency Committee on Noise (FICON) (20) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL).

For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for the purpose of this analysis, FICON identifies a *readily perceptible* 5 dBA or greater project related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. According to the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. Table 4-1 below provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Federal Interagency Committee on Noise (FICON), 1992.

4.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *Rialto Noise Guidelines for Land Use Planning* is used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area, such as commercial and business park land uses. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise level for non-noise-sensitive land use, such as commercial and business park uses, is 65 dBA CNEL. Noise levels

greater than 65 dBA CNEL are considered *conditionally acceptable* according to the *Rialto Noise Guidelines for Land Use Planning*.

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *readily perceptible* 5 dBA and *barely perceptible* 3 dBA criteria are used. When the without Project noise levels at the non-noise-sensitive land uses are below the *normally acceptable* 65 dBA CNEL compatibility criteria, a *readily perceptible* 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the *normally acceptable* 65 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *Rialto Noise Guidelines for Land Use Planning normally acceptable* 65 dBA CNEL exterior noise level criteria.

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-2 shows the significance criteria summary matrix.

OFF-SITE TRAFFIC NOISE

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):
    - are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
    - range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase; or
    - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. commercial, etc.):
    - are less than the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *normally acceptable* 65 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
    - are greater than the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *normally acceptable* 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase.

ON-SITE TRAFFIC NOISE

- If the on-site exterior noise levels:
    - exceed the *normally acceptable* 65 dBA CNEL exterior noise level criteria (City of Rialto General Plan Safety & Noise Element, Exhibit 5.5); or
    - are below the *conditionally acceptable* 75 dBA CNEL exterior noise level criteria and the interior noise levels exceed 45 dBA CNEL at the hotel use located within the Project site (City of Rialto General Plan Safety & Noise Element, Measure 8.94).

CONSTRUCTION NOISE AND VIBRATION

- If Project-related construction activities:

- occur at any time other than the permitted hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays (City of Rialto Municipal Code, Section 9.50.070); or
- create noise levels which exceed the 85 dBA Leq acceptable noise level threshold at the nearby sensitive receiver locations (NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure).

- If short-term Project-generated construction vibration levels exceed the County of San Bernardino acceptable vibration standard of 0.2 in/sec PPV at sensitive receiver locations (County of San Bernardino Development Code, Section 83.01.090 (c) (2)).

TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site[1]	Noise-Sensitive	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive	if ambient is < 65 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
On-Site[2]	Non-Noise-Sensitive	General Commercial Land Use Exterior	65 dBA CNEL *normally acceptable;* 75 dBA CNEL *conditionally acceptable*	
		General Commercial Land Use Interior	45 dBA CNEL	
Construction Noise & Vibration	Noise-Sensitive	Permitted Construction Hours[3]		
		October 1 - April 30	7:00 a.m. to 5:30 p.m. Mondays to Fridays	
		May 1 - September 30	6:00 a.m. to 7:00 p.m. Mondays to Fridays	
		Any Time of Year	8:00 a.m. to 5:00 p.m. Saturdays; no activity on Sundays & holidays.	
		Noise Level Threshold[4]	85 dBA Leq	n/a
		Vibration Level Threshold[5]	0.2 in/sec PPV	n/a

[1] Source: FICON, 1992.
[2] Source: City of Rialto General Plan Safety & Noise Element, Exhibit 5.5 and Implementation Plan, Measure 8.94.
[3] Source: City of Rialto Municipal Code (Appendix 3.1).
[4] Source: NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure, June 1998.
[5] Source: County of San Bernardino Development Code, Section 83.01.090 (c) (2).
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, four 24-hour noise level measurements were taken at sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, January 12th, 2015. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (21)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. To describe the existing noise environment, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels west of the Project site on Palmetto Avenue east of existing residential homes and north of an existing industrial use. The noise level measurements collected show an overall 24-hour exterior noise level of 75.3 dBA CNEL. The hourly noise levels measured at location L1 ranged from 67.4 to 73.2 dBA Leq during the daytime hours and from 63.6 to 72.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 69.9 dBA Leq with an average nighttime noise level of 68.4 dBA Leq.
- Location L2 represents the noise levels west of the Project site on Highland Avenue, adjacent to SR-210. The noise level measurements collected show an overall 24-hour exterior noise level of 78.8 dBA CNEL. The hourly noise levels measured at location L2 ranged from 71.5 to 74.9 dBA Leq during the daytime hours and from 68.9 to 75.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 73.0 dBA Leq with an average nighttime noise level of 71.9 dBA Leq.
- Location L3 represents the noise levels at the northern Project site boundary and the SR-210 eastbound off ramp. The 24-hour CNEL indicates that the overall exterior noise level is 76.9 dBA CNEL. At location L3 the background ambient noise levels ranged from 67.0 to 73.3 dBA Leq during the daytime hours to levels of 66.4 to 73.8 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 71.3 dBA Leq with an average nighttime noise level of 70.1 dBA Leq.
- Located on Tamarind Avenue south of the Project site, location L4 represents the noise levels on east of existing industrial uses and south of an existing residential home. The noise level measurements collected show an overall 24-hour exterior noise level of 67.0 dBA CNEL. The hourly noise levels measured at location L4 ranged from 58.7 to 64.6 dBA Leq during the daytime hours and from 53.4 to 63.3 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 62.0 dBA Leq with an average nighttime noise level of 59.8 dBA Leq.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network. This includes the auto and heavy truck activities on SR-210 near the noise level measurement locations. The 24-hour existing noise level measurements shown on Table 5-1 present the worst-case existing unmitigated ambient noise conditions.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Distance To Project Boundary (Feet)	Description	Energy Average Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	1,940'	Located west of the Project site on Palmetto Avenue east of existing residential homes and north of an existing industrial use.	69.9	68.4	75.3
L2	1,550'	Located west of the Project site on Highland Avenue, adjacent to SR-210.	73.0	71.9	78.8
L3	50'	Located at the northern Project site boundary and the SR-210 eastbound off ramp.	71.3	70.1	76.9
L4	3,290'	Located on Tamarind Avenue south of the Project site east of existing industrial uses and south of an existing residential home.	62.0	59.8	67.0

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (22) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (23) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 19 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the City of Rialto General Plan, Renaissance Specific Plan, and City of Fontana General Plan Circulation Elements, and the posted vehicle speeds. For the purpose of this analysis, soft site conditions are used to analyze the traffic noise impacts within the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Caltrans' research has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (24)

The Existing, Existing plus Ambient (EA) 2019, and EA plus Cumulative (EAC) 2019 average daily traffic volumes used for this study are presented on Table 6-2 and are provided by the *Commercial Development Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (1) Table 6-3 presents the time of day vehicle splits and Table 6-4 presents the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks and heavy trucks for input into the FHWA noise prediction model.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Adjacent Land Use[1]	Distance From Centerline To Nearest Adjacent Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Sierra Av.	n/o Highland Av.	Community Commercial	60'	45
2	Sierra Av.	s/o Highland Av.	Residential	60'	45
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	32'	45
4	Alder Av.	n/o SR-210 WB Ramps	Employment	50'	50
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	50'	50
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	50'	50
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	50'	50
8	Alder Av.	n/o Walnut Av.	Employment	50'	50
9	Alder Av.	s/o Walnut Av.	Business Center	50'	50
10	Alder Av.	n/o Baseline Av.	Employment	50'	50
11	Alder Av.	s/o Baseline Av.	Residential	50'	40
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	161'	70
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	161'	70
14	Highland Av.	e/o Sierra Av.	Residential	52'	45
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	50'	50
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	50'	50
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	50'	50
18	Baseline Av.	w/o Alder Av.	Residential	50'	50
19	Baseline Av.	e/o Alder Av.	Residential	50'	50

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the City of Rialto General Plan, Renaissance Specific Plan, and the City of Fontana General Plan Circulation Elements.
[3] Posted speed limits.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic (1,000's)[1]					
			Existing		Existing + Ambient (EA) 2019		EA + Cumulative (EAC) 2019	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	Sierra Av.	n/o Highland Av.	36.1	36.5	39.1	39.5	39.1	39.5
2	Sierra Av.	s/o Highland Av.	27.0	27.4	29.2	29.6	29.2	29.6
3	Palmetto Av.	s/o Renaissance Pkwy.	1.7	2.5	1.8	2.6	1.8	2.6
4	Alder Av.	n/o SR-210 WB Ramps	13.1	13.3	14.1	14.4	21.5	21.8
5	Alder Av.	s/o SR-210 WB Ramps	15.2	16.3	16.4	17.6	27.1	28.3
6	Alder Av.	s/o SR-210 EB Ramps	19.0	21.0	20.5	22.6	35.0	37.1
7	Alder Av.	s/o Renaissance Pkwy.	18.0	19.4	19.5	20.9	32.9	34.3
8	Alder Av.	n/o Walnut Av.	17.6	19.0	19.0	20.4	31.1	32.5
9	Alder Av.	s/o Walnut Av.	16.2	17.6	17.5	18.9	28.5	29.9
10	Alder Av.	n/o Baseline Av.	16.3	17.7	17.6	19.0	21.4	22.8
11	Alder Av.	s/o Baseline Av.	12.1	12.5	13.1	13.5	15.5	15.9
12	SR-210 Fwy.	w/o Alder Av.	101.4	102.0	109.8	110.4	116.1	116.7
13	SR-210 Fwy.	e/o Alder Av.	96.7	97.3	104.7	105.3	110.2	110.8
14	Highland Av.	e/o Sierra Av.	7.0	7.8	7.6	8.4	8.6	9.4
15	Renaissance Pkwy.	w/o Palmetto Av.	4.7	5.5	5.1	5.9	6.3	7.1
16	Renaissance Pkwy.	e/o Palmetto Av.	4.0	5.6	4.4	6.0	5.5	7.1
17	Renaissance Pkwy.	e/o Alder Av.	4.1	4.3	4.4	4.7	6.5	6.8
18	Baseline Av.	w/o Alder Av.	12.2	12.5	13.2	13.5	14.0	14.3
19	Baseline Av.	e/o Alder Av.	14.7	15.3	15.9	16.5	18.4	19.0

[1] Source: Alder Av. & SR-210 Commercial Development Traffic Impact Analysis, January 2016.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Time Period	Vehicle Type		
	Autos	Medium Trucks	Heavy Trucks
Daytime (7:00 a.m. - 7:00 p.m.)	77.5%	84.8%	86.5%
Evening (7:00 p.m. - 10:00 p.m.)	12.9%	4.9%	2.7%
Nighttime (10:00 p.m. - 7:00 a.m.)	9.6%	10.3%	10.8%
Total:	100.0%	100.0%	100.0%

TABLE 6-4: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
SR-210[1]	90.00%	5.24%	4.76%	100.00%
All Segments	97.42%	1.84%	0.74%	100.00%

[1] Caltrans Data Branch Annual Average Daily Truck Traffic on the California Highways System, 2014.

6.3 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The on-site roadway parameters including the average daily traffic (ADT) volumes used for this study are presented on Table 6-5. To predict the future on-site noise environment at the Project site, the EAPC 2019 average daily traffic volume for SR-210 was obtained from the *Commercial Development Traffic Impact Analysis*, prepared by Urban Crossroads, Inc. (1) To predict the future traffic noise environment, the EAPC ADT volume for SR-210 was doubled to reflect worst-case future traffic conditions, as shown on Table 6-5. The traffic volumes shown on Table 6-5 reflect future long-range traffic conditions needed to assess the future on-site traffic noise environment and to identify the appropriate noise mitigation measures that address the worst-case future noise conditions. For the purposes of this analysis, soft site conditions were used to analyze the on-site traffic noise impacts for the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation.

Table 6-3 presents the time of day vehicle splits by vehicle type, and Table 6-4 presents the total traffic flow distributions (vehicle mixes) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks and heavy trucks for input into the FHWA Model based on roadway types.

To predict the future noise environment at each building within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the Project site plan showing the plotting of each building in relationship to SR-71 and SR-60, as shown in Appendix 6.1. The site plan is used to identify the relationship between the roadway centerline elevation, the pad elevation and the centerline distance to the noise barrier, and the building façade. The exterior noise level impacts at the first-floor receivers were placed five feet above the pad elevation and ten feet from the proposed barrier location or at the proposed building façade, whichever is greater. All second floor receivers were located 14 feet above the proposed finished floor elevation and all third floor receivers were located 23 feet above the proposed finished floor elevation. Fourth floor receivers were located at 32 feet above the proposed finished floor elevation. As previously discussed in Section 6.2, research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (24)

TABLE 6-5: ON-SITE ROADWAY PARAMETERS

Roadway Segment	Lanes	Classification	Average Daily Traffic Volume[1]	Speed Limit (mph)[2]	Site Conditions[3]
SR-210	8	Freeway	233,400	70	Soft

[1] Based on a doubling of the EAPC volume on SR-210 from the Commercial Development Traffic Impact Analysis, January 2016.
[2] Speed limit is based on posted speed limits plus 5 mph to account for worst-case conditions.
[3] Source: Caltrans, Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report, June 1995.

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7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Commercial Development Traffic Impact Analysis*. (1) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Without / With Project: This scenario refers to the existing present-day noise conditions, without and with the proposed Project.
- Existing plus Ambient Growth (EA) 2019 Without / With Project: This scenario refers to the background noise conditions at future Year 2019 without and with the proposed Project plus ambient growth.
- EA plus Cumulative (EAC) 2019 Without / With Project: This scenario refers to the background noise conditions at future Year 2019 without and with the proposed Project. This scenario corresponds to 2019 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

7.1 TRAFFIC NOISE CONTOURS

To quantify the Project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 19 roadway segments surrounding the Project were calculated based on the changes in the average daily traffic volumes. Based on the noise impact significance criteria described in Section 4 and shown on Table 4-2, a significant off-site traffic noise level impact occurs:

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):
    - are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
    - range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase; or
    - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. commercial, etc.):
    - are less than the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *normally acceptable* 65 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
    - are greater than the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5, *normally acceptable* 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase.

Both the noise-sensitive and non-noise-sensitive significance criteria are applied to the Project-related off-site traffic noise level increases based on the land uses adjacent to the study area roadway segments. Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours

represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not take into account the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-6 present a summary of the exterior traffic noise levels, without barrier attenuation, for the 19 study area roadway segments analyzed from the without Project to the with Project conditions in each of the three timeframes: Existing, Existing plus Ambient Growth (EA) 2019, and EA plus Cumulative (EAC) 2019 conditions. Appendix 7.1 includes a summary of the traffic noise level contours for each of the six traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	72.7	91	197	424
2	Sierra Av.	s/o Highland Av.	Residential	71.5	75	162	349
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	61.7	RW	RW	42
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.0	50	107	231
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	70.6	55	119	256
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.6	64	138	297
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.4	62	133	286
8	Alder Av.	n/o Walnut Av.	Employment	71.3	61	131	282
9	Alder Av.	s/o Walnut Av.	Business Center	70.9	57	124	267
10	Alder Av.	n/o Baseline Av.	Employment	70.9	58	124	268
11	Alder Av.	s/o Baseline Av.	Residential	67.2	RW	70	151
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.3	426	917	1976
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.1	412	888	1914
14	Highland Av.	e/o Sierra Av.	Residential	66.0	RW	61	131
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.5	RW	54	117
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	64.8	RW	RW	105
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	64.9	RW	50	107
18	Baseline Av.	w/o Alder Av.	Residential	69.7	RW	102	221
19	Baseline Av.	e/o Alder Av.	Residential	70.5	54	116	250

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	72.8	92	198	427
2	Sierra Av.	s/o Highland Av.	Residential	71.5	76	164	353
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	63.4	RW	RW	54
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.0	50	109	234
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	70.9	58	124	268
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	72.0	68	147	317
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.7	65	140	301
8	Alder Av.	n/o Walnut Av.	Employment	71.6	64	138	297
9	Alder Av.	s/o Walnut Av.	Business Center	71.3	61	131	282
10	Alder Av.	n/o Baseline Av.	Employment	71.3	61	131	283
11	Alder Av.	s/o Baseline Av.	Residential	67.4	RW	72	155
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.4	427	921	1983
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.2	414	892	1922
14	Highland Av.	e/o Sierra Av.	Residential	66.5	RW	65	140
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	66.2	RW	60	130
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	66.3	RW	61	131
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	65.1	RW	51	110
18	Baseline Av.	w/o Alder Av.	Residential	69.8	RW	104	224
19	Baseline Av.	e/o Alder Av.	Residential	70.7	55	119	257

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EA 2019 WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	96	208	447
2	Sierra Av.	s/o Highland Av.	Residential	71.8	79	171	368
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	RW	RW	43
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.3	52	113	243
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	71.0	58	125	269
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.9	67	145	312
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.7	65	140	302
8	Alder Av.	n/o Walnut Av.	Employment	71.6	64	138	297
9	Alder Av.	s/o Walnut Av.	Business Center	71.2	60	130	281
10	Alder Av.	n/o Baseline Av.	Employment	71.3	61	131	282
11	Alder Av.	s/o Baseline Av.	Residential	67.6	RW	74	160
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.7	449	967	2083
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.5	435	937	2018
14	Highland Av.	e/o Sierra Av.	Residential	66.4	RW	64	138
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.9	RW	57	123
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	65.2	RW	52	112
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	65.2	RW	52	112
18	Baseline Av.	w/o Alder Av.	Residential	70.0	50	108	233
19	Baseline Av.	e/o Alder Av.	Residential	70.8	57	122	263

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: EA 2019 WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	97	209	450
2	Sierra Av.	s/o Highland Av.	Residential	71.9	80	172	372
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	63.6	RW	RW	55
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.4	53	114	246
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	71.3	61	131	282
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	72.3	72	155	333
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	72.0	68	147	316
8	Alder Av.	n/o Walnut Av.	Employment	71.9	67	144	311
9	Alder Av.	s/o Walnut Av.	Business Center	71.6	64	137	295
10	Alder Av.	n/o Baseline Av.	Employment	71.6	64	138	297
11	Alder Av.	s/o Baseline Av.	Residential	67.7	RW	76	163
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.7	450	971	2091
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.5	436	940	2026
14	Highland Av.	e/o Sierra Av.	Residential	66.8	RW	68	148
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	66.5	RW	63	136
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	66.6	RW	64	138
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	65.5	RW	54	117
18	Baseline Av.	w/o Alder Av.	Residential	70.1	51	110	236
19	Baseline Av.	e/o Alder Av.	Residential	71.0	58	125	270

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: EAC 2019 WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	96	208	447
2	Sierra Av.	s/o Highland Av.	Residential	71.8	79	171	368
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	RW	RW	43
4	Alder Av.	n/o SR-210 WB Ramps	Employment	72.1	69	149	322
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	73.1	81	174	376
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	74.2	96	207	446
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	74.0	92	198	428
8	Alder Av.	n/o Walnut Av.	Employment	73.7	89	191	412
9	Alder Av.	s/o Walnut Av.	Business Center	73.4	84	180	389
10	Alder Av.	n/o Baseline Av.	Employment	72.1	69	149	321
11	Alder Av.	s/o Baseline Av.	Residential	68.3	RW	83	179
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.9	466	1004	2162
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.7	450	969	2088
14	Highland Av.	e/o Sierra Av.	Residential	66.9	RW	70	150
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	66.8	RW	66	142
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	66.2	RW	60	130
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	66.9	RW	67	145
18	Baseline Av.	w/o Alder Av.	Residential	70.3	52	112	242
19	Baseline Av.	e/o Alder Av.	Residential	71.5	63	135	290

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: EAC 2019 WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)	Distance to Contour from Centerline (Feet)[2]		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	97	209	450
2	Sierra Av.	s/o Highland Av.	Residential	71.9	80	172	372
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	63.6	RW	RW	55
4	Alder Av.	n/o SR-210 WB Ramps	Employment	72.2	70	151	325
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	73.3	83	180	387
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	74.5	100	215	463
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	74.2	95	204	440
8	Alder Av.	n/o Walnut Av.	Employment	73.9	91	197	424
9	Alder Av.	s/o Walnut Av.	Business Center	73.6	86	186	401
10	Alder Av.	n/o Baseline Av.	Employment	72.4	72	155	335
11	Alder Av.	s/o Baseline Av.	Residential	68.4	RW	84	182
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.9	467	1007	2170
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.7	452	973	2096
14	Highland Av.	e/o Sierra Av.	Residential	67.3	RW	74	159
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	67.3	RW	71	154
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	67.3	RW	71	154
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	67.1	RW	69	149
18	Baseline Av.	w/o Alder Av.	Residential	70.4	53	114	245
19	Baseline Av.	e/o Alder Av.	Residential	71.6	64	138	297

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] "RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING CONDITION PROJECT TRAFFIC NOISE LEVELS

Table 7-1 presents the Existing without Project conditions CNEL noise levels. From this we can see that the exterior noise levels are expected to range from 61.7 to 76.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 63.4 to 76.4 dBA CNEL. As shown on Table 7-7 the Project will generate a noise level increase of up to 1.7 dBA CNEL on the study area roadway segments. Based on the significance criteria in Section 4, the Project-related noise level increases are considered *less than significant* under Existing conditions at the land uses adjacent to roadways conveying Project traffic.

7.3 EA 2019 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-8 presents a comparison of the EA 2019 without and with Project conditions CNEL noise levels. Table 7-3 shows that the exterior noise levels without accounting for any noise attenuation features are expected to range from 62.0 to 76.7 dBA CNEL without the Project. Table 7-4 presents the EA 2019 with Project conditions noise level contours that are expected to range from 63.6 to 76.7 dBA CNEL. As shown on Table 7-8 the Project will generate *less than significant* noise level increases of up to 1.6 dBA CNEL on the study area roadway segments. Based on the significance criteria in Section 4, the Project-related increases represent a *less than significant* impact under EA 2019 conditions.

7.4 EAC 2019 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-9 presents a comparison of the EAC 2019 without and with Project conditions CNEL noise levels. Table 7-5 shows that the exterior noise levels without accounting for any noise attenuation features are expected to range from 62.0 to 76.9 dBA CNEL without the Project. Table 7-6 presents the EAC 2019 with Project conditions noise level contours that are expected to range from 63.6 to 76.9 dBA CNEL. As shown on Table 7-9 the Project will generate *less than significant* noise level increases of up to 1.6 dBA CNEL on the study area roadway segments. Based on the significance criteria in Section 4, the Project-related increases represent a *less than significant* impact under EAC 2019 conditions.

7.5 RENAISSANCE SPECIFIC PLAN EIR COMPARISON

The *Renaissance Specific Plan EIR*, previously discussed in Section 3.4, identifies a *significant and unavoidable* impact for off-site traffic noise due to the *Renaissance Specific Plan*. (2) However, the results of this Commercial Development off-site traffic noise analysis indicate that the long-term noise impacts due to the Project will be *less than significant* under all traffic scenarios. The findings of this noise study vary from those of the *Renaissance Specific Plan EIR* due to the greater detail of the Project site plan and Project information available at the time of this noise study than what was used in the *Renaissance Specific Plan EIR*; the Project off-site traffic noise impacts are less than the potential impacts identified in the *Renaissance Specific Plan*.

TABLE 7-7: EXISTING OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	72.7	72.8	0.1	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.5	71.5	0.0	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	61.7	63.4	1.7	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.0	70.0	0.0	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	70.6	70.9	0.3	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.6	72.0	0.4	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.4	71.7	0.3	No	No
8	Alder Av.	n/o Walnut Av.	Employment	71.3	71.6	0.3	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	70.9	71.3	0.4	No	No
10	Alder Av.	n/o Baseline Av.	Employment	70.9	71.3	0.4	No	No
11	Alder Av.	s/o Baseline Av.	Residential	67.2	67.4	0.2	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.3	76.4	0.1	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.1	76.2	0.1	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.0	66.5	0.5	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.5	66.2	0.7	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	64.8	66.3	1.5	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	64.9	65.1	0.2	No	No
18	Baseline Av.	w/o Alder Av.	Residential	69.7	69.8	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	70.5	70.7	0.2	No	No

[1] Sources: City of Rialto Renaissance Specific Plan, Figure 2-2, and the City of Fontana General Plan Land Use Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Significance Criteria (Section 4).

TABLE 7-8: EA 2019 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	73.1	0.0	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.8	71.9	0.1	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	63.6	1.6	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	70.3	70.4	0.1	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	71.0	71.3	0.3	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	71.9	72.3	0.4	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	71.7	72.0	0.3	No	No
8	Alder Av.	n/o Walnut Av.	Employment	71.6	71.9	0.3	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	71.2	71.6	0.4	No	No
10	Alder Av.	n/o Baseline Av.	Employment	71.3	71.6	0.3	No	No
11	Alder Av.	s/o Baseline Av.	Residential	67.6	67.7	0.1	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.7	76.7	0.0	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.5	76.5	0.0	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.4	66.8	0.4	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	65.9	66.5	0.6	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	65.2	66.6	1.4	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	65.2	65.5	0.3	No	No
18	Baseline Av.	w/o Alder Av.	Residential	70.0	70.1	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	70.8	71.0	0.2	No	No

[1] Source: City of San Bernardino General Plan Land Use Element, Figure LU-2.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Significance Criteria (Section 4).

TABLE 7-9: EAC 2019 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Sierra Av.	n/o Highland Av.	Community Commercial	73.1	73.1	0.0	No	No
2	Sierra Av.	s/o Highland Av.	Residential	71.8	71.9	0.1	No	No
3	Palmetto Av.	s/o Renaissance Pkwy.	Freeway Commercial	62.0	63.6	1.6	No	No
4	Alder Av.	n/o SR-210 WB Ramps	Employment	72.1	72.2	0.1	No	No
5	Alder Av.	s/o SR-210 WB Ramps	Freeway Incubator	73.1	73.3	0.2	No	No
6	Alder Av.	s/o SR-210 EB Ramps	Freeway Commercial	74.2	74.5	0.3	No	No
7	Alder Av.	s/o Renaissance Pkwy.	Freeway Commercial	74.0	74.2	0.2	No	No
8	Alder Av.	n/o Walnut Av.	Employment	73.7	73.9	0.2	No	No
9	Alder Av.	s/o Walnut Av.	Business Center	73.4	73.6	0.2	No	No
10	Alder Av.	n/o Baseline Av.	Employment	72.1	72.4	0.3	No	No
11	Alder Av.	s/o Baseline Av.	Residential	68.3	68.4	0.1	No	No
12	SR-210 Fwy.	w/o Alder Av.	Freeway Commercial	76.9	76.9	0.0	No	No
13	SR-210 Fwy.	e/o Alder Av.	Freeway Commercial	76.7	76.7	0.0	No	No
14	Highland Av.	e/o Sierra Av.	Residential	66.9	67.3	0.4	No	No
15	Renaissance Pkwy.	w/o Palmetto Av.	Residential	66.8	67.3	0.5	No	No
16	Renaissance Pkwy.	e/o Palmetto Av.	Freeway Commercial	66.2	67.3	1.1	No	No
17	Renaissance Pkwy.	e/o Alder Av.	Freeway Commercial	66.9	67.1	0.2	No	No
18	Baseline Av.	w/o Alder Av.	Residential	70.3	70.4	0.1	No	No
19	Baseline Av.	e/o Alder Av.	Residential	71.5	71.6	0.1	No	No

[1] Source: City of San Bernardino General Plan Land Use Element, Figure LU-2.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Significance Criteria (Section 4).

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8 ON-SITE TRANSPORTATION NOISE IMPACTS

An on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the proposed Commercial Development Project. It is expected that the primary source of noise impacts to the Project site will be traffic noise from SR-210. The Project will also experience some background traffic noise impacts from the Alder Avenue and Renaissance Parkway, however, the traffic noise from these roads will largely be overshadowed by the traffic noise on SR-210.

8.1 ON-SITE EXTERIOR NOISE ANALYSIS

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-3 to 6-5, the expected future exterior noise levels for the buildings were calculated. Table 8-1 presents a summary of future exterior noise level impacts in the outdoor areas (seating) and at the building façades. The on-site traffic noise level impacts indicate that the buildings facing SR-210 will experience unmitigated exterior noise levels ranging from 72.4 to 74.2 dBA CNEL. The on-site traffic noise analysis calculations are provided in Appendix 8.1.

To satisfy the City of Rialto exterior noise level compatibility criteria for general commercial land uses no exterior noise mitigation is required. The on-site noise analysis shows that the exterior noise levels will be *conditionally acceptable* at the hotel, restaurant, and gas station uses with noise levels below 75 dBA CNEL. The outdoor seating areas will experience *conditionally acceptable* noise levels of up to 72.4 dBA CNEL, however, the City of Rialto compatibility criteria for general commercial land uses does not require any exterior noise mitigation for the outdoor seating areas of the Commercial Development Project.

TABLE 8-1: EXTERIOR NOISE LEVELS (CNEL)

Land Use[1]	Roadway	Unmitigated Noise Level (dBA CNEL)	Land Use Compatibility[2]
Hotel	SR-210 Freeway	74.2	Conditionally Acceptable
Outdoor Seating	SR-210 Freeway	72.4	Conditionally Acceptable

[1] See Project site plan (Appendix 6.1) for locations.
[2] Based on the City of Rialto General Plan Safety & Noise Element, Exhibit 5.5.

8.2 ON-SITE INTERIOR NOISE ANALYSIS

To ensure that the interior noise levels comply with the City of Rialto 45 dBA CNEL interior noise standards, future noise levels were calculated at the first and second floor building facades.

8.2.1 NOISE REDUCTION METHODOLOGY

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: (1) weather-stripped solid core exterior doors; (2) upgraded dual glazed windows; (3) mechanical ventilation/air conditioning; and (4) exterior wall/roof assembles free of cut outs or openings.

8.2.2 INTERIOR NOISE LEVEL ASSESSMENT

To provide the necessary interior noise level reduction for the noise-sensitive hotel rooms within the Project site, Tables 8-2 and 8-5 indicate that the hotel building will require a means of mechanical ventilation (e.g. air conditioning). Table 8-2 shows that the future unmitigated noise levels at the first floor building façade are expected to approach 74.2 dBA CNEL. The first floor interior noise level analysis shows that the City of Rialto 45 dBA CNEL interior noise level standards can be satisfied using upgraded windows with a minimum STC rating of 40. Table 8-3 shows that the future noise levels at the second floor building façade are expected to approach 74.1 dBA CNEL, and upgraded windows with a minimum STC rating of 40 are required to satisfy the City of Rialto's 45 dBA CNEL interior noise level standards.

Tables 8-4 and 8-5 show that the future noise levels approaching 74.1 dBA CNEL at the third and fourth floor building façades require upgraded windows with a minimum STC rating of 40 to satisfy the City of Rialto's 45 dBA CNEL interior noise level standards. The interior noise analysis shows that with the recommended interior noise mitigation measures described in the Executive Summary, the Project will satisfy the City of Rialto 45 dBA CNEL interior noise level standards. The interior noise mitigation measures are consistent with the 2014 State of California's Green Building Standards Code requirements for non-residential buildings within the 65 dBA noise contour of a freeway which requires minimum STC ratings of 40 for all windows.

8.3 RENAISSANCE SPECIFIC PLAN EIR COMPARISON

The on-site traffic noise analysis for the Project is consistent with Mitigation Measure (MM) N-06 identified in the *Renaissance Specific Plan EIR*, previously discussed in Section 3.4, which requires a noise impact analysis for *proposed commercial retail uses located adjacent to Alder Avenue, Baseline Road, or SR-210*. Based on the findings of this analysis, with the interior noise mitigation measures recommended in the Executive Summary, the Project is consistent with MM N-06. (2)

TABLE 8-2: FIRST FLOOR INTERIOR NOISE IMPACTS (CNEL)

Building	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Interior Noise Level[5]
Hotel	74.2	29.2	38.0	Yes	36.2
Outdoor Seating	n/a	n/a	n/a	n/a	n/a

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated interior noise reduction with the recommended STC rating for all windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"n/a" = Outdoor seating area does not have an interior area requiring an interior noise reduction analysis.

TABLE 8-3: SECOND FLOOR INTERIOR NOISE IMPACTS (CNEL)

Building	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Interior Noise Level[5]
Hotel	74.1	29.1	38.0	Yes	36.1
Outdoor Seating	n/a	n/a	n/a	n/a	n/a

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated interior noise reduction with the recommended STC rating for all windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"n/a" = Outdoor seating area does not have an interior area requiring an interior noise reduction analysis.

TABLE 8-4: THIRD FLOOR INTERIOR NOISE IMPACTS (CNEL)

Building	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Interior Noise Level[5]
Hotel	74.1	29.1	38.0	Yes	36.1
Outdoor Seating	n/a	n/a	n/a	n/a	n/a

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated interior noise reduction with the recommended STC rating for all windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"n/a" = Outdoor seating area does not have an interior area requiring an interior noise reduction analysis.

TABLE 8-5: FOURTH FLOOR INTERIOR NOISE IMPACTS (CNEL)

Building	Noise Level at Façade[1]	Required Interior Noise Reduction[2]	Estimated Interior Noise Reduction[3]	Upgraded Windows[4]	Interior Noise Level[5]
Hotel	74.1	29.1	38.0	Yes	36.1
Outdoor Seating	n/a	n/a	n/a	n/a	n/a

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated interior noise reduction with the recommended STC rating for all windows.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"n/a" = Outdoor seating area does not have an interior area requiring an interior noise reduction analysis.

9 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following four receiver locations, as shown on Exhibit 9-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Representative sensitive receivers in the vicinity of the Project site include the single-family residential homes represented by locations R1 to R4. The closest sensitive receiver is represented by location R1 where an existing residential home is located approximately 2,040 feet west of the Project site boundary. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures.

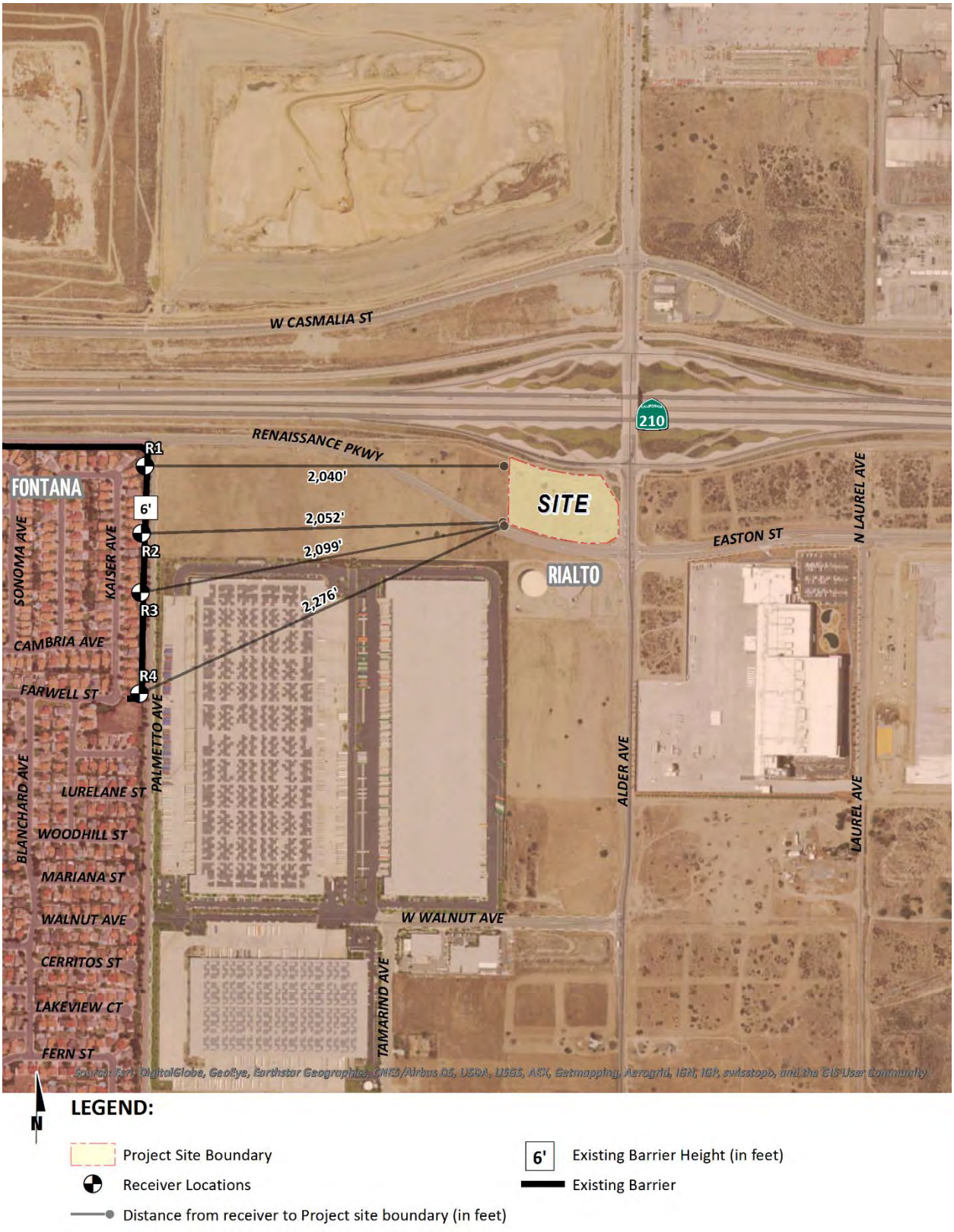
R1: Located approximately 2,040 feet west of the Project site on Coronado Avenue, R1 represents the existing residential homes closest to the Project site.

R2: Location R2 represents existing residential homes located roughly 2,052 feet west of the Project site on Kaiser Avenue.

R3: Location R3 represents the existing residential homes situated southwest of the Project site at a distance of approximately 2,099 feet across Palmetto Avenue.

R4: Location R4 represents the existing residential homes situated approximately 2,276 feet southwest of the Project site on Kaiser Avenue.

EXHIBIT 9-A: RECEIVER LOCATIONS



10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project.

10.1 CONSTRUCTION NOISE STANDARDS

To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this analysis presents the appropriate construction noise standards for the City of Rialto and the adjacent jurisdiction of the City of Fontana. However, the permitted hours of construction for the City of Rialto are the only applicable hour restrictions for the Project since the construction activity will be within the City of Rialto jurisdiction.

10.1.1 CITY OF RIALTO CONSTRUCTION NOISE STANDARDS

The City of Rialto Municipal Code, Section 9.50.070, states that construction activities are permitted between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays. (14) While the City establishes limits to the hours during which construction activity may take place, neither the City's General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*.

10.1.2 CITY OF FONTANA CONSTRUCTION NOISE STANDARDS

The City of Fontana set restrictions to control noise impacts associated with the construction of the proposed Project. According to Section 18-63(b)(7), *Construction or repairing of buildings or structures,* construction activity is limited: *between the hours of 7:00 a.m. and 6:00 p.m. on weekdays and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays except in the case of urgent necessity*. (15) Like the City of Rialto, the City of Fontana establishes limits to the hours during which construction activity may take place, but neither its General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*.

10.1.3 CONSTRUCTION NOISE LEVEL THRESHOLD

To evaluate whether the Project will generate a substantial periodic increase in short-term noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). (16) A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in

half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. (16) For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA Leq is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time period, they are expressed as Leq noise levels. Therefore, the noise level threshold of 85 dBA Leq over a period of eight hours or more is used to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations.

10.2 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers and portable generators that when combined can reach high levels. The number and mix of construction equipment is expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to in excess of 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver. The construction stages used in this analysis are consistent with the *Commercial Development Air Quality Impact Analysis* prepared by Urban Crossroads, Inc. (25)

10.3 CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the sixteen construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 10-1 have been adjusted for consistency to describe a common reference distance of 50 feet.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA Leq)	Reference Noise Levels @ 50 Feet (dBA Leq)[6]
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	59.2
2	Dozer Activity[1]	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	67.5
4	Foundation Trenching[2]	30'	72.6	68.2
5	Rough Grading Activities[2]	30'	77.9	73.5
6	Residential Framing[3]	30'	66.7	62.3
7	Water Truck Pass-By & Backup Alarm[4]	30'	76.3	71.9
8	Dozer Pass-By[4]	30'	84.0	79.6
9	Two Scrapers & Water Truck Pass-By[4]	30'	83.4	79.0
10	Two Scrapers Pass-By[4]	30'	83.7	79.3
11	Scraper, Water Truck, & Dozer Activity[4]	30'	79.7	75.3
12	Concrete Mixer Truck Movements[5]	50'	71.2	71.2
13	Concrete Paver Activities[5]	30'	70.0	65.6
14	Concrete Mixer Pour & Paving Activities[5]	30'	70.3	65.9
15	Concrete Mixer Backup Alarms & Air Brakes[5]	50'	71.6	71.6
16	Concrete Mixer Pour Activities[5]	50'	67.7	67.7

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.
[4] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.
[5] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[6] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

10.4 CONSTRUCTION NOISE ANALYSIS

Tables 10-2 to 10-6 show the Project construction stages and the reference construction noise levels used for each stage. Table 10-7 provides a summary of the noise levels from each stage of construction at each of the sensitive receiver locations. Based on the reference construction noise levels, the Project-related construction noise levels when the peak reference noise level is operating at the closest point within the center of construction activity to the nearest the sensitive receiver location will range from 41.4 to 42.3 dBA Leq.

TABLE 10-2: SITE PREPARATION EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Dozer Pass-By	79.6
Peak Reference Noise Level at 50 Feet (dBA Leq):	79.6

Receiver Location	Distance to Construction Activity (Feet)[2]	Distance Attenuation (dBA Leq)[3]	Estimated Noise Barrier Attenuation (dBA Leq)[4]	Construction Noise Level (dBA Leq)
R1	2,040'	-32.2	-5.0	42.3
R2	2,052'	-32.3	-5.0	42.3
R3	2,099'	-32.5	-5.0	42.1
R4	2,276'	-33.2	-5.0	41.4

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

TABLE 10-3: GRADING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Rough Grading Activities	73.5
Dozer Pass-By	79.6
Peak Reference Noise Level at 50 Feet (dBA Leq):	79.6

Receiver Location	Distance to Construction Activity (Feet)[2]	Distance Attenuation (dBA Leq)[3]	Estimated Noise Barrier Attenuation (dBA Leq)[4]	Construction Noise Level (dBA Leq)
R1	2,040'	-32.2	-5.0	42.3
R2	2,052'	-32.3	-5.0	42.3
R3	2,099'	-32.5	-5.0	42.1
R4	2,276'	-33.2	-5.0	41.4

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

TABLE 10-4: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)
Construction Vehicle Maintenance Activities	67.5
Foundation Trenching	68.2
Peak Reference Noise Level at 50 Feet (dBA Leq):	68.2

Receiver Location	Distance to Construction Activity (Feet)[2]	Distance Attenuation (dBA Leq)[3]	Estimated Noise Barrier Attenuation (dBA Leq)[4]	Construction Noise Level (dBA Leq)
R1	2,040'	-32.2	-5.0	30.9
R2	2,052'	-32.3	-5.0	30.9
R3	2,099'	-32.5	-5.0	30.7
R4	2,276'	-33.2	-5.0	30.0

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

TABLE 10-5: PAVING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)
Concrete Mixer Truck Movements	71.2
Concrete Paver Activities	65.6
Concrete Mixer Pour & Paving Activities	65.9
Concrete Mixer Backup Alarms & Air Brakes	71.6
Concrete Mixer Pour Activities	67.7
Peak Reference Noise Level at 50 Feet (dBA Leq):	71.6

Receiver Location	Distance to Construction Activity (Feet)[2]	Distance Attenuation (dBA Leq)[3]	Estimated Noise Barrier Attenuation (dBA Leq)[4]	Construction Noise Level (dBA Leq)
R1	2,040'	-32.2	-5.0	34.4
R2	2,052'	-32.3	-5.0	34.3
R3	2,099'	-32.5	-5.0	34.1
R4	2,276'	-33.2	-5.0	33.4

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

TABLE 10-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)
Construction Vehicle Maintenance Activities	67.5
Peak Reference Noise Level at 50 Feet (dBA Leq):	67.5

Receiver Location	Distance to Construction Activity (Feet)[2]	Distance Attenuation (dBA Leq)[3]	Estimated Noise Barrier Attenuation (dBA Leq)[4]	Construction Noise Level (dBA Leq)
R1	2,040'	-32.2	-5.0	30.2
R2	2,052'	-32.3	-5.0	30.2
R3	2,099'	-32.5	-5.0	30.0
R4	2,276'	-33.2	-5.0	29.3

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

TABLE 10-7: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA LEQ)

Receiver Location[1]	Construction Phase Hourly Noise Level (dBA Leq)					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak Activity[2]
R1	42.3	42.3	30.9	34.4	30.2	42.3
R2	42.3	42.3	30.9	34.3	30.2	42.3
R3	42.1	42.1	30.7	34.1	30.0	42.1
R4	41.4	41.4	30.0	33.4	29.3	41.4

[1] Noise receiver locations are shown on Exhibit 9-A.
[2] Estimated construction noise levels during peak operating conditions.

10.5 CONSTRUCTION NOISE THRESHOLDS OF SIGNIFICANCE

The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the closest point from the center of construction activity. Table 10-8 shows the unmitigated peak construction noise levels at the nearby sensitive receiver locations will range from 41.4 to 42.3 dBA Leq and will satisfy the construction noise level threshold of 85 dBA Leq at the nearby sensitive receiver locations. Therefore, the construction of the Project will result in a *less than significant* noise impact at the nearby sensitive receiver locations during peak construction activity.

TABLE 10-8: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA Leq)		
	Peak Activity[2]	Threshold[3]	Threshold Exceeded?[4]
R1	42.3	85	No
R2	42.3	85	No
R3	42.1	85	No
R4	41.4	85	No

[1] Noise receiver locations are shown on Exhibit 9-A.
[2] Estimated construction noise levels during peak operating conditions, as shown on Table 10-7.
[3] Construction noise level threshold as shown on Table 4-2.
[4] Do the estimated Project construction noise levels exceed the construction noise level thresholds?

10.6 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to building, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences to cause a vibration impact.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within

the Project site include grading and paving. Using the vibration source level of construction equipment provided on Table 6-6 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-9 presents the expected Project related vibration levels at the sensitive receiver locations.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec (PPV) at a distance of 25 feet. At distances ranging from 2,040 to 2,276 feet from the Project site, construction vibration velocity levels are expected to approach 0.0001 in/sec PPV, as shown on Table 10-9. Based on the County of San Bernardino vibration standard of 0.2 in/sec PPV, the construction-related vibration impacts are considered *less than significant.*

Further, vibration levels at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating at the Project site perimeter. Moreover, construction at the Project site will be restricted to daytime hours consistent with City of Rialto requirements thereby eliminating potential vibration impacts during the sensitive nighttime hours.

TABLE 10-9: CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver Location[1]	Distance To Const. Activity (Feet)	Receiver PPV Levels (in/sec)[2]				Peak Particle Vibration (PPV)	Threshold Exceeded?[4]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer		
R1	2,040'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R2	2,052'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R3	2,099'	0.0000	0.0000	0.0001	0.0001	0.0001	No
R4	2,276'	0.0000	0.0000	0.0001	0.0001	0.0001	No

[1] Receiver locations are shown on Exhibit 9-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 6-6.
[3] Does the peak vibration exceed the maximum acceptable vibration threshold?

10.7 CONSTRUCTION NOISE AND VIBRATION ABATEMENT MEASURES

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following practices would reduce any noise level increases produced by the construction equipment to the nearby noise-sensitive residential land uses. Further, the noise abatement measures identified below are based on the *Renaissance Specific Plan EIR* Mitigation Measures N-01 to N-05, and N-07, however, since the unmitigated Project-related construction noise levels will be *less than significant* the Mitigation Measures are not required. Therefore, the construction noise and vibration abatement measures in Section 10.7 of this report are provided consistent with the *Renaissance Specific Plan EIR* Mitigation Measures only where applicable (e.g. permitted hours of construction activity and properly installed and effective mufflers):

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays (*Renaissance Specific Plan EIR,* Mitigation Measure N-01). The Project construction supervisor shall ensure compliance with the permitted construction hours.
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards (*Renaissance Specific Plan EIR,* Mitigation Measure N-02). The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

10.8 RENAISSANCE SPECIFIC PLAN EIR COMPARISON

The results of the construction noise and vibration analysis for the Project show that the unmitigated noise and vibration levels from Project construction are considered *less than significant* impacts. The *Renaissance Specific Plan EIR*, previously described in Section 3.6, identifies Mitigation Measures to reduce potentially significant construction noise and vibration levels from the *Renaissance Specific Plan* development, however, since the Project's unmitigated construction noise and vibration levels are *less than significant*, the Mitigation Measures are not required. Therefore, the construction noise and vibration abatement measures in Section 10.7 of this report are provided consistent with the *Renaissance Specific Plan EIR* Mitigation Measures only where applicable (e.g. permitted hours of construction activity and properly installed and effective mufflers).

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22. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.

23. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.

24. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.

25. **Urban Crossroads, Inc.** *Commercial Development Air Quality Impact Analysis.* September 2016.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Commercial Development Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5979.

Bill Lawson, P.E., INCE
Principal
URBAN CROSSROADS, INC.
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Irvine, CA 92606
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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF RIALTO MUNICIPAL CODE

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Chapter 9.50 - NOISE CONTROL

Sections:

9.50.010 - Purpose and intent.

A. It is the purpose of these regulations to implement the goals and objectives of the noise element of the city's general plan to establish community-wide noise standards and to serve as a reference for locating other city regulations relating to noise in the community. It is further the purpose of these regulations to recognize that the existence of excessive noise within the city is a condition that is detrimental to the health, safety, welfare and quality of life of the citizens and shall be regulated in the public interest.

B. In furtherance of the foregoing purpose, it is found and declared as follows:

   1. The making, creation or maintenance of such loud, unnecessary, unnatural or unusual noises that are prolonged, unusual, annoying, disturbing and unnatural in their time, place and use are a detriment to public health, comfort, convenience, safety, general welfare and the peace and quiet of the city and its inhabitants; and

   2. The public necessity for the provisions and prohibitions contained in and enacted by this chapter is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions set forth in and enacted by this chapter are in pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, general welfare and property and the peace and quiet of the city and its inhabitants.

(Ord. 1417 § 1 (part), 2008)

9.50.020 - Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

"Construction equipment" means tools, machinery or equipment used in connection with construction operations, including all types of "special construction" equipment as defined in the pertinent sections of California Vehicle Code when used in the construction process on any construction site, home improvement site or property maintenance site, regardless of whether such site be located on highway or off highway.

"Enforcement officer" means a city code enforcement officer or peace officer authorized to enforce the provisions and prohibitions of this chapter pursuant to Section 9.50.080.

"Plainly audible" means any sound that can be detected by a person using his or her unaided hearing faculties. As an example, if the sound source under investigation is a portable or personal vehicular sound amplification or reproduction device, the investigating enforcement officer need not determine the title of a

song, specific words, or the artist performing the song. The detection of the vibration from the rhythmic bass component of the music is sufficient to constitute a plainly audible sound.

"Public right-of-way" means any street, avenue, boulevard, highway, sidewalk, alley or similar place, owned or controlled by a government entity.

"Public space" means any real property or structures on real property, owned by a government entity and normally accessible to the public, including but not limited to parks and other recreation areas.

"Responsible person" means:

1. Any person who owns, leases or is lawfully in charge of the property or motor vehicle where the noise violation takes place; or
2. Any person who owns or controls the source of the noise or violation. If the responsible person is a minor, then the parent or guardian who has custody of the child at the time of the violation shall be the responsible person who is liable under this chapter.

(Ord. 1417 § 1 (part), 2008)

9.50.030 - Prohibited acts.

A. It is unlawful for any person to engage in the following activities:
   1. Sounding any horn or signal device on any automobile, motorcycle, bus or other motor vehicle in any other manner or circumstances or for any other purpose than required or permitted by the Vehicle Code or other California laws.
   2. Racing the engine of any motor vehicle while the vehicle is not in motion, except when necessary to do so in the course of repairing, adjusting or testing the same.
   3. Operating or permitting the use of any motor vehicle on any public right-of-way or public place or on private property within a residential zone for which the exhaust muffler, intake muffler or any other noise abatement device has been modified or changed in a manner such that the noise emitted by the motor vehicle is increased above that emitted by the vehicle as originally manufactured.
   4. Operating or permitting the use or operation of personal or commercial music or sound amplification or production equipment that is:
      a. Plainly audible across property boundaries;
      b. Plainly audible through partitions common to two residences within a building;
      c. Plainly audible at a distance of fifty feet in any direction from the source of music or sound between the hours of eight a.m. and ten p.m.; or
      d. Plainly audible at a distance of twenty-five feet in any direction from the source of music or sound between the hours of ten p.m. and eight a.m.

5. The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or any motor vehicle burglar alarm, except for emergency purposes or for testing, unless such alarm is terminated within fifteen minutes of activation.
6. Creating excessive noise adjacent to any school, church, court or library while the same is in use, or adjacent to any hospital or care facility, which unreasonably interferes with the workings of such institution, or which disturbs or unduly annoys patients in the hospital, students in the school, users of the court or library, provided conspicuous signs are displayed in such streets indicating the presence of a school, institution of learning, church, court or hospital.
7. Making or knowingly and unreasonably permitting to be made any unreasonably loud, unnecessary or unusual noise that disturbs the comfort, repose, health, peace and quiet or which causes discomfort or annoyance to any reasonable person of normal sensitivity. The characteristics and conditions that may be considered in determining whether this section has been violated, include, but are not limited to, the following:
    a. The level of noise;
    b. Whether the nature of the noise is usual or unusual;
    c. Whether the origin of the noise is natural or unnatural;
    d. The level of the background noise;
    e. The proximity of the noise to sleeping facilities;
    f. The nature and zoning of the areas within which the noise emanates;
    g. The density of the inhabitation of the area within which the noise emanates;
    h. The time of day or night the noise occurs;
    i. The duration of the noise;
    j. Whether the noise is recurrent, intermittent or constant; and
    k. Whether the noise is produced by a commercial or noncommercial activity.

B. A violation of this section is an infraction and a public nuisance.

C. A violation of this section may result in the following:
1. Issuance of an infraction citation;
2. Issuance of a notice of public nuisance;
3. Imposition of criminal and civil penalties; and
4. Confiscation and impoundment as evidence, of the components that are amplifying or transmitting the prohibited noise.

D. An enforcement officer who encounters a violation of this section may issue a written notice to the responsible person demanding immediate abatement of the violation (written notice). The written notice shall inform the recipient that a second violation of the same provision within a seventy-two-

hour period may result in the issuance of a criminal citation and/or notice of public nuisance, the imposition of criminal and civil penalties, and confiscation and impoundment as evidence, of the components that are amplifying or transmitting the prohibited noise.

E. Any peace officer who encounters a second violation of this section within a seventy-two-hour period following issuance of a written notice is empowered to confiscate and impound as evidence, any or all of the components amplifying or transmitting the sound.

F. Any person claiming legal ownership of the items confiscated and impounded under this section may request the return of the item by filing a written request with the police department within seven calendar days of the confiscation. Such requests shall be processed in accordance with the procedures adopted by the department.

(Ord. 1417 § 1 (part), 2008)

9.50.040 - Excessive noise and vibration emanating from a motor vehicle.

A. No person shall operating or occupy a motor vehicle on any public right-of-way, public place or private property, while operating or permitting the use or operation of any radio, stereo receiver, musical instrument, television, computer, compact disc player, tape recorder, cassette player or any other device for the production or reproduction of sound from within the motor vehicle so that the sound is plainly audible at a distance of fifty feet from such vehicle, or in the case of a motor vehicle on private property, beyond the property line.

B. Pursuant to Section 9.50.130, a violation of this section is a misdemeanor offense and a public nuisance.

C. A violation of this section may result in the following:

1. Issuance of a misdemeanor citation;
2. Issuance of a notice of public nuisance;
3. Imposition of criminal and civil penalties; and
4. Immediate confiscation and impoundment as evidence, of the components that are amplifying or transmitting the prohibited noise or the immediate confiscation and impoundment of the motor vehicle to which the component is attached if the same may not be removed without causing harm to the vehicle or the component.

D. Any person claiming legal ownership of a motor vehicle confiscated and impounded under this section may request the return of the vehicle by filing a written request with the police department within seven calendar days of the confiscation. Such requests shall be processed in accordance with the procedures adopted by the department.

E. Any person claiming legal ownership of the items confiscated and impounded under this section, other than a motor vehicle, may request the return of the item by filing a written request with the police department, which shall be processed in accordance with the procedures adopted by the department.

(Ord. 1417 § 1 (part), 2008)

9.50.050 - Controlled hours of operation.

It is unlawful for any person to engage in the following activities other than between the hours of seven a.m. and eight p.m. in all zones:

A. Operate or permit the use of powered model vehicles and planes;

B. Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within one thousand feet of a residence;

C. Operate or permit the use of domestic power tools, or machinery or any other equipment or tool in any garage, workshop, house or any other structure;

D. Operate or permit the use of gasoline or electric powered leaf blowers, such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters and other property;

E. Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the city manager;

F. Operate or permit the use of pile driver, steam or gasoline shovel, pneumatic hammer, steam or electric hoist or other similar devices;

G. Operate or permit the use of electrically operated compressor, fan, and other similar devices;

H. Perform ground maintenance on golf course grounds and tennis courts contiguous to golf courses that creates a noise disturbance across a residential or commercial property line;

I. Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of ten thousand pounds, or of any auxiliary equipment attached to such a vehicle, including but not limited to refrigerated truck compressors, for a period longer than fifteen minutes in any hour while the vehicle is stationary and on a public right-of-way or public space except when movement of the vehicle is restricted by other traffic;

J. Repair, rebuild, reconstruct or dismantle any motor vehicle or other mechanical equipment or devices in a manner so as to be plainly audible across property lines.

(Ord. 1417 § 1 (part), 2008)

9.50.060 - Exemptions.

The following activities and noise sources shall be exempt from the provisions of this chapter:

A. Those noise events in the community (e.g., airport noise, arterial traffic noise, railroad noise) that are more accurately measured by application of the general plan noise element policy, utilizing the community noise equivalent level (CNEL) method;

B.

Activities conducted on the grounds of any public or private school during regular hours of operation;

C. Outdoor gatherings, public dances, shows and sporting and entertainment events provided the events are authorized by the city;

D. Activities conducted at public spaces during regular hours of operation;

E. Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work;

F. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;

G. Mobile noise sounds associated with agricultural operations provided such operations do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturdays, or at any time on Sunday or a state holiday;

H. Mobile noise sources associated with agricultural pest control through pesticide application;

I. Warning devices necessary for the protection of the public safety, including, but not limited to, police, fire and ambulance sirens and train horns and sounds for the purpose of alerting persons to the existence of an emergency;

J. Construction, repair or excavation necessary for the immediate preservation of life or property;

K. Construction, operation, maintenance and repairs of equipment, apparatus or facilities of park and recreation departments, public work projects or essential public services and facilities, including trash collection and those of public utilities subject to the regulatory jurisdiction of the California Public Utilities Commission;

L. Construction, repair or excavation work performed pursuant to a valid written agreement with the city or any of its political subdivisions which agreement provides for noise mitigation measures;

M. Any activity to the extent regulation thereof has been preempted by state or federal law;

N. Any activity or noise source governed elsewhere in this code. Such activities include but are not limited to:

1. Security alarm systems (see Chapter 7.01 of this code),
2. Animal noise (see Title 6 of this code),
3. Sound trucks and advertising by sound (see Chapter 9 of this code),
4. Performance standards for various commercial and industrial uses (see Title 18 of this code);

O. Sounds generated in commercial and industrial zones that are necessary and incidental to the uses permitted therein;

P. Sounds generated from or incidental to emergency repairs to any public works function; and

Q.

Sounds generated in connection with speech or communication protected by the U.S. Constitution or the California Constitution, expect to the extent such sounds are subject to permissible time, manner and place restrictions.

(Ord. 1417 § 1 (part), 2008)

9.50.070 - Disturbances from construction activity.

A. No person shall be engaged or employed, or cause any other person to be engaged or employed, in any work of construction, erection, alteration, repair, addition, movement, demolition, or improvement to any building or structure except within the hours provided for by subsection B of this section.

B. The permitted hours for such construction work are as follows:

1. October 1st through April 30th.

Monday—Friday	7:00 a.m. to 5:30 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No permissible hours
State holidays	No permissible hours

2. May 1st through September 30th.

Monday—Friday	6:00 a.m. to 7:00 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No permissible hours
State holidays	No permissible hours

C. For purposes of this section, the following definitions shall apply:

1. "Building" means any structure used or intended for supporting or sheltering any use or occupancy.

2.

"Structure" means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

D. For purposes of this section, the following exceptions shall apply:
   1. Emergency repair of existing installations, equipment, or appliances; and
   2. Such work that complies with the terms and conditions of a written early work permit issued by the city manager or his or her designee upon a showing of a sufficient need and justification for the permit due to hot or inclement weather, the use of an unusually long process material, or other circumstances of an unusual and compelling nature.

(Ord. 1417 § 1 (part), 2008)

9.50.080 - Administration.

Except as otherwise provided, the provisions and prohibitions of this chapter shall be jointly administered by and the responsibility of the city's police department and department of development services, code enforcement division. The chief of police may adopt administrative rules and regulations which are consistent with the provisions of this chapter for the purpose of implementing the same.

(Ord. 1417 § 1 (part), 2008)

9.50.090 - Cost recovery for second response.

A. Any and all personnel who may be deployed by the city pursuant to this chapter shall be deemed to be on regular duty under the general supervision of the chief of police, fire chief, the director of development services or other city department director, and any officer or employee in charge under their respective commands and shall be entitled to any and all benefits provided by law or ordinance for such personnel as employees of the city, except that the rate of pay for such special security services shall be set forth herein. The pay for each employee thus employed during such employment shall be at his or her actual rate of pay. The chief of police or other department director, as the case may be, shall report to the chief financial officer the name of the person, firm, organization or corporation requiring such personnel, the names of the employees so employed and the number of hours of employment of each. The chief financial officer shall thereupon bill the person.

B. Whenever any enforcement officer issues a written warning to a responsible person to discontinue a noise violation, the responsible person shall be liable for the actual cost of each subsequent response required to abate the violation within seventy-two hours of the issuance of the written warning (response charge).

C. The bill for the response charge shall be served upon the responsible person within thirty days after the violation. If the responsible person has no last known business or residence address, the location of the violation shall be deemed to be the proper address for service. The bill shall include a notice of the right

of the person being charged to request a hearing to dispute the imposition of the response charge or the amount of the charge.

D. The response charge shall be deemed to be a civil debt to the city.

E. All responsible persons shall be jointly and severally liable for the response charge regardless of whether or not they received a written notice.

(Ord. 1417 § 1 (part), 2008)

9.50.100 - Public nuisance.

A violation of this chapter by any person responsible for committing, causing or maintaining such violation shall constitute a public nuisance that shall be subject to the provisions of Chapters 9.39 and 9.42 of this title.

(Ord. 1417 § 1 (part), 2008)

9.50.110 - Infraction violation.

A violation of Section 9.50.030, 9.50.050 or 9.50.070 of this chapter by any person responsible for committing, causing or maintaining such violation shall constitute an infraction violation and the violator shall be subject to the provisions set forth in Section 1.16.010 of this code, including but not limited to the imposition of any and all criminal penalties set forth therein.

(Ord. 1417 § 1 (part), 2008)

9.50.120 - Misdemeanor violation.

A violation of Section 9.50.040 of this chapter by any person responsible for committing, causing or maintaining such violation shall constitute a misdemeanor violation which shall be subject to the provisions set forth in Section 1.16.010 of this code, including but not limited to the imposition of any and all criminal penalties set forth therein.

(Ord. 1417 § 1 (part), 2008)

9.50.130 - Civil fines.

Any person convicted of an infraction or misdemeanor violation under this chapter shall, for each separate violation, be subject to: (A) a fine in an amount not to exceed two hundred fifty dollars for a first conviction of an offense; (B) a fine in an amount not to exceed five hundred dollars for a second conviction of the same offense within a twelve-month period from the date of the first offense; and (C) a fine in an amount not to exceed seven hundred fifty dollars for the third conviction of the same offense within a

twelve-month period from the date of the first offense. The fine for a fourth and any subsequent convictions of the same offense within a twelve-month period from the date of the first offense shall be one thousand dollars.

(Ord. 1417 § 1 (part), 2008)

9.50.140 - Additional penalties.

Nothing in this chapter shall preclude the city from pursuing any other legal remedies provided by this code or otherwise available to the city at law or in equity.

(Ord. 1417 § 1 (part), 2008)

APPENDIX 3.2:

CITY OF FONTANA MUNICIPAL CODE

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DIVISION 6. - PERFORMANCE STANDARDS

Sec. 30-181. - Purpose.

This section establishes standards for conducting activities in residential zoning districts. The standards are designed to protect residents from annoying or potentially harmful environmental conditions.

Sec. 30-182. - Noise.

(a) No use shall create or cause to be created any sound that exceeds the ambient noise standards outlined in Table 30-182.A.

(b) No use shall create or cause creation of noise from a portable electronic device such as a car stereo, portable radio and/or cassette/compact disc player or similar device which exceeds the ambient noise standards outlined in Table 30-182.A.

Table 30-182.A.
Noise Standards

Location of Measurement	Maximum Allowable	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
A. All zoning districts		
Interior	45 db	45 db
Exterior	65 db	65 db

Sec. 30-183. - Vibration.

No use shall create or cause to be created any activity that causes a vibration that can be felt beyond the property line with or without the aid of an instrument.

Sec. 30-184. - Light and glare.

All lights shall be directed and/or shielded to prevent the light from adversely affecting adjacent properties. No structure or feature shall be permitted which creates adverse glare effects.

Sec. 30-185. - Odors.

All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

Sec. 30-186. - Electromagnetic interference.

No use, activity or process shall be conducted which produces electromagnetic interference with normal radio and television receptions beyond the property line.

APPENDIX 5.1:

STUDY AREA PHOTOS

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L1_E
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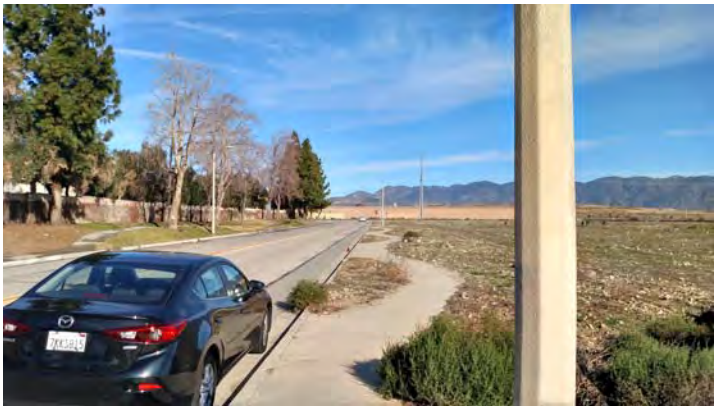

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L1_S
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L1_W
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L2
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L2_SE
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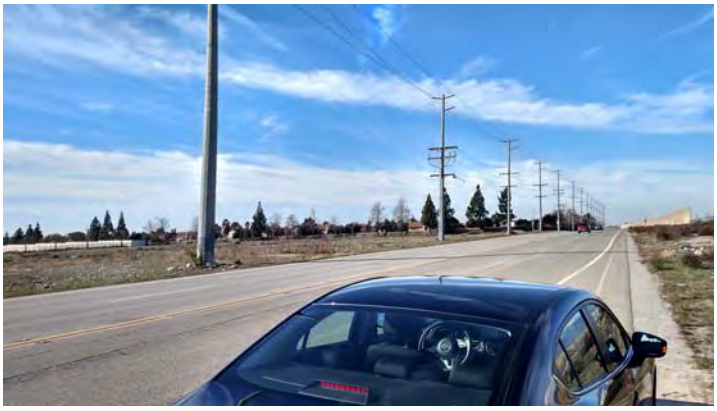

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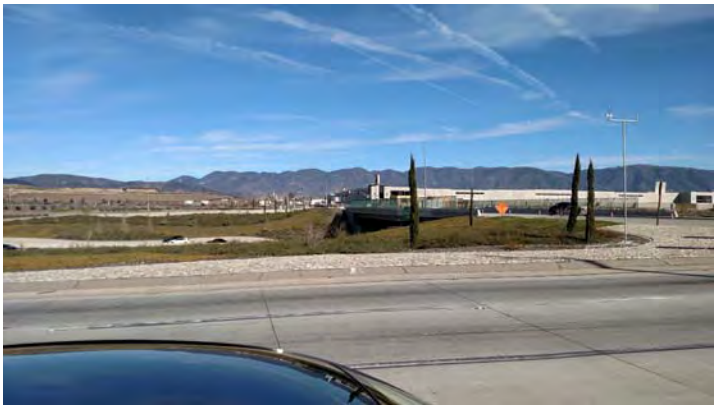

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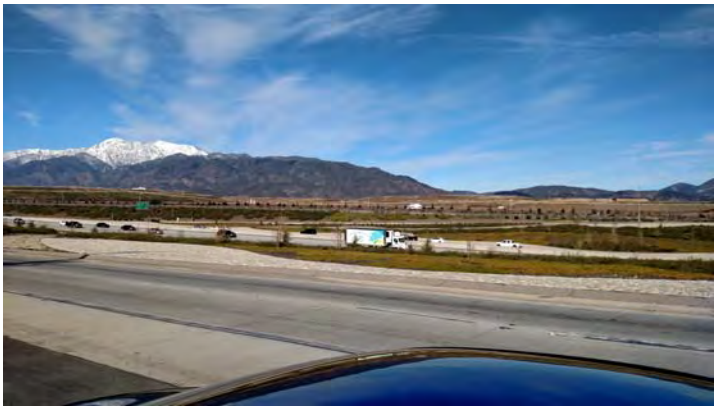

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L4_E
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L4_NW
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L4_S
34, 7' 29.739000", 117, 25' 22.183200"

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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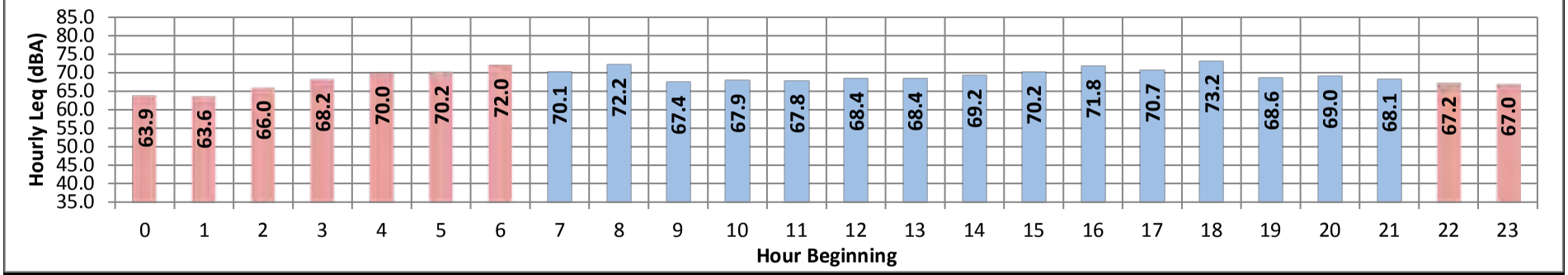
24-Hour Noise Level Measurement Summary

				Energy Average Leq		24-Hour
Project Name:	Commercial Development	*JN:*	9896	*Day*	*Night*	*CNEL*
Location:	L1 - Located west of the Project site on Palmetto Avenue east of existing residential homes and north of an existing industrial use.	*Analyst:*	A. Wolfe	69.9	68.4	75.3
		Date:	1/12/2016			

Hourly Leq dBA Readings (unadjusted)



Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	67.4	83.3	47.8	77.0	75.0	73.0	72.0	65.0	58.0	52.0	51.0	49.0
	Max	73.2	102.2	63.1	80.0	78.0	77.0	76.0	72.0	67.0	65.0	64.0	64.0
Energy Average:		69.9	Average:		78.3	76.9	74.8	73.5	68.1	63.2	57.9	56.8	55.3
Night	Min	63.6	82.4	52.7	75.0	72.0	66.0	64.0	61.0	59.0	57.0	56.0	55.0
	Max	72.0	93.2	61.4	80.0	79.0	78.0	77.0	72.0	67.0	64.0	63.0	62.0
Energy Average:		68.4	Average:		77.7	76.0	73.0	70.4	64.8	62.6	59.8	59.0	57.7
Hourly Summary													
Night	0	63.9	82.4	54.6	75.0	73.0	69.0	65.0	62.0	60.0	57.0	57.0	56.0
	1	63.6	85.9	52.8	75.0	72.0	66.0	64.0	61.0	59.0	57.0	56.0	55.0
	2	66.0	86.2	52.7	78.0	76.0	72.0	68.0	62.0	60.0	58.0	57.0	55.0
	3	68.2	87.2	53.8	79.0	77.0	75.0	72.0	64.0	62.0	59.0	58.0	55.0
	4	70.0	89.3	59.7	79.0	78.0	76.0	74.0	67.0	65.0	63.0	62.0	61.0
	5	70.2	89.9	61.4	79.0	78.0	76.0	74.0	68.0	66.0	64.0	63.0	62.0
	6	72.0	83.7	59.8	80.0	79.0	78.0	77.0	72.0	67.0	63.0	62.0	61.0
Day	7	70.1	90.2	50.3	79.0	78.0	76.0	75.0	70.0	63.0	54.0	53.0	51.0
	8	72.2	100.2	51.7	80.0	78.0	75.0	74.0	69.0	63.0	56.0	54.0	52.0
	9	67.4	87.1	49.4	77.0	76.0	74.0	72.0	65.0	58.0	53.0	52.0	50.0
	10	67.9	86.0	52.2	78.0	76.0	74.0	72.0	66.0	63.0	58.0	56.0	54.0
	11	67.8	86.6	57.9	77.0	75.0	73.0	72.0	66.0	63.0	61.0	60.0	59.0
	12	68.4	86.0	58.4	78.0	76.0	74.0	72.0	67.0	63.0	61.0	60.0	59.0
	13	68.4	83.8	47.8	77.0	76.0	74.0	73.0	68.0	63.0	53.0	51.0	49.0
	14	69.2	87.5	48.9	78.0	77.0	75.0	74.0	70.0	62.0	52.0	51.0	50.0
	15	70.2	88.9	52.1	78.0	77.0	75.0	74.0	71.0	65.0	55.0	54.0	52.0
	16	71.8	90.4	63.1	80.0	78.0	77.0	76.0	72.0	67.0	65.0	64.0	64.0
	17	70.7	87.0	61.2	78.0	77.0	76.0	75.0	71.0	67.0	64.0	63.0	62.0
	18	73.2	102.2	52.8	79.0	78.0	75.0	74.0	69.0	64.0	59.0	56.0	53.0
	19	68.6	83.3	57.5	78.0	77.0	75.0	73.0	66.0	63.0	60.0	60.0	59.0
	20	69.0	86.9	57.0	79.0	78.0	75.0	74.0	66.0	62.0	59.0	59.0	58.0
	21	68.1	85.9	55.8	78.0	76.0	74.0	72.0	65.0	62.0	59.0	59.0	57.0
Night	22	67.2	86.0	56.8	77.0	76.0	73.0	71.0	64.0	63.0	60.0	59.0	58.0
	23	67.0	93.2	52.8	77.0	75.0	72.0	69.0	63.0	61.0	57.0	57.0	56.0

24-Hour Noise Level Measurement Summary

Project Name: Commercial Development

Location: L2 - Located west of the Project site on Highland Avenue, adjacent to SR-210.

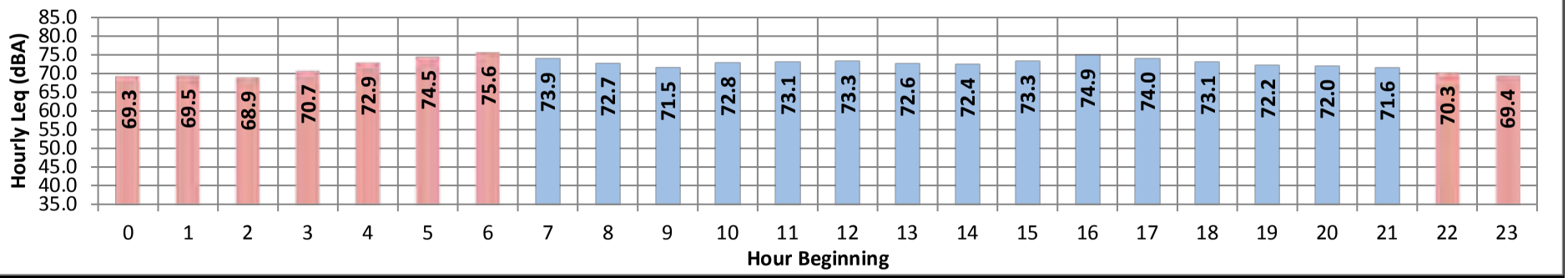
JN: 9896

Analyst: A. Wolfe

Date: 1/12/2016

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
73.0	71.9	78.8

Hourly Leq dBA Readings (unadjusted)

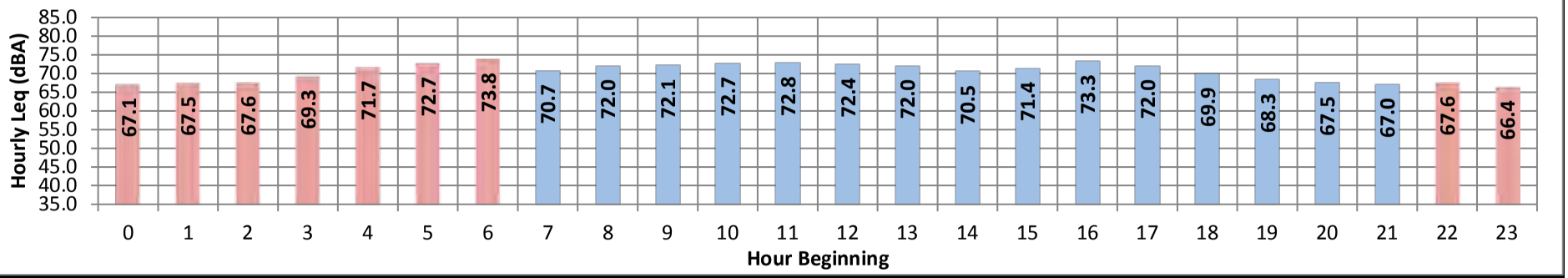


Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	71.5	82.7	59.6	77.0	77.0	75.0	74.0	72.0	70.0	66.0	64.0	62.0
	Max	74.9	96.2	68.9	80.0	79.0	77.0	77.0	75.0	74.0	72.0	71.0	70.0
Energy Average:		73.0	Average:		78.1	77.3	75.7	75.3	73.1	71.5	68.5	67.4	65.5
Night	Min	68.9	81.0	54.1	77.0	75.0	73.0	72.0	69.0	66.0	60.0	59.0	57.0
	Max	75.6	90.0	66.5	81.0	80.0	78.0	78.0	76.0	74.0	72.0	71.0	69.0
Energy Average:		71.9	Average:		78.1	76.9	75.1	74.1	71.3	68.9	64.6	63.4	61.3
Hourly Summary													
Night	0	69.3	81.0	55.8	77.0	76.0	74.0	73.0	69.0	66.0	61.0	59.0	57.0
	1	69.5	88.2	54.1	78.0	76.0	74.0	73.0	69.0	66.0	60.0	59.0	57.0
	2	68.9	84.7	54.4	77.0	75.0	73.0	72.0	69.0	66.0	61.0	60.0	58.0
	3	70.7	85.7	58.9	78.0	77.0	75.0	74.0	71.0	68.0	64.0	63.0	60.0
	4	72.9	86.7	64.0	79.0	78.0	76.0	75.0	73.0	71.0	68.0	67.0	65.0
	5	74.5	87.3	64.9	79.0	79.0	78.0	77.0	75.0	73.0	70.0	69.0	68.0
	6	75.6	87.9	66.5	81.0	80.0	78.0	78.0	76.0	74.0	72.0	71.0	69.0
Day	7	73.9	92.3	63.9	79.0	78.0	77.0	76.0	74.0	72.0	69.0	68.0	66.0
	8	72.7	92.9	60.3	78.0	77.0	75.0	75.0	73.0	71.0	68.0	67.0	64.0
	9	71.5	82.7	60.4	78.0	77.0	75.0	74.0	72.0	70.0	66.0	65.0	63.0
	10	72.8	83.8	62.9	78.0	77.0	76.0	75.0	73.0	72.0	68.0	67.0	65.0
	11	73.1	85.1	63.0	78.0	77.0	76.0	76.0	74.0	72.0	69.0	68.0	65.0
	12	73.3	84.2	64.0	78.0	77.0	76.0	76.0	74.0	72.0	69.0	68.0	67.0
	13	72.6	87.5	61.4	77.0	77.0	76.0	75.0	73.0	71.0	68.0	67.0	65.0
	14	72.4	85.5	61.9	78.0	77.0	75.0	75.0	73.0	71.0	68.0	67.0	66.0
	15	73.3	82.8	65.7	79.0	78.0	76.0	75.0	73.0	72.0	69.0	69.0	68.0
	16	74.9	92.1	68.9	80.0	79.0	77.0	77.0	75.0	74.0	72.0	71.0	70.0
	17	74.0	87.2	68.0	79.0	77.0	76.0	76.0	74.0	73.0	71.0	70.0	69.0
	18	73.1	96.2	61.8	78.0	77.0	76.0	75.0	73.0	71.0	69.0	68.0	66.0
	19	72.2	85.0	61.1	77.0	77.0	75.0	75.0	72.0	71.0	68.0	67.0	64.0
	20	72.0	87.7	59.6	77.0	77.0	75.0	75.0	72.0	70.0	67.0	65.0	63.0
	21	71.6	83.1	59.8	78.0	77.0	75.0	75.0	72.0	70.0	66.0	64.0	62.0
Night	22	70.3	82.3	58.1	77.0	76.0	74.0	73.0	71.0	69.0	64.0	63.0	60.0
	23	69.4	90.0	55.9	77.0	75.0	74.0	72.0	69.0	67.0	61.0	60.0	58.0

24-Hour Noise Level Measurement Summary

				Energy Average Leq		24-Hour
Project Name:	Commercial Development	*JN:*	9896	*Day*	*Night*	*CNEL*
Location:	L3 - Located at the northern Project site boundary and the SR-210 eastbound off ramp.	*Analyst:*	A. Wolfe	71.3	70.1	76.9
		Date:	1/12/2016			

Hourly Leq dBA Readings (unadjusted)



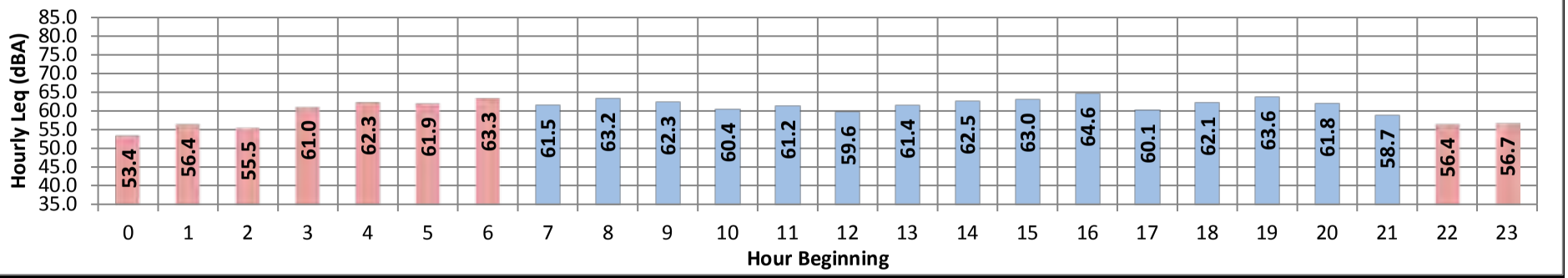
Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	67.0	79.7	59.4	73.0	71.0	69.0	69.0	67.0	66.0	64.0	63.0	61.0
	Max	73.3	91.3	67.5	79.0	78.0	76.0	75.0	73.0	72.0	71.0	70.0	69.0
Energy Average:		71.3	Average:		76.8	75.3	73.6	72.7	70.8	69.4	66.7	65.9	64.5
Night	Min	66.4	78.2	55.6	73.0	72.0	70.0	69.0	66.0	65.0	61.0	60.0	58.0
	Max	73.8	84.6	68.4	77.0	76.0	76.0	75.0	74.0	73.0	71.0	71.0	69.0
Energy Average:		70.1	Average:		74.9	73.7	72.2	71.3	69.6	67.9	65.1	64.3	62.8
Hourly Summary													
Night	0	67.1	78.9	57.3	74.0	72.0	71.0	70.0	68.0	65.0	61.0	60.0	59.0
	1	67.5	84.6	55.6	75.0	74.0	71.0	70.0	67.0	65.0	61.0	60.0	58.0
	2	67.6	80.4	57.6	74.0	73.0	71.0	70.0	68.0	66.0	63.0	62.0	60.0
	3	69.3	78.2	60.6	74.0	73.0	72.0	72.0	70.0	68.0	65.0	64.0	62.0
	4	71.7	81.9	64.7	76.0	75.0	74.0	73.0	72.0	71.0	69.0	68.0	67.0
	5	72.7	79.7	66.7	77.0	76.0	75.0	74.0	73.0	72.0	70.0	69.0	68.0
	6	73.8	81.8	68.4	77.0	76.0	76.0	75.0	74.0	73.0	71.0	71.0	69.0
Day	7	70.7	85.4	59.4	77.0	75.0	74.0	74.0	71.0	68.0	64.0	63.0	61.0
	8	72.0	86.8	60.6	77.0	77.0	75.0	74.0	72.0	71.0	66.0	65.0	63.0
	9	72.1	86.1	63.1	78.0	76.0	75.0	74.0	72.0	71.0	67.0	66.0	64.0
	10	72.7	89.0	65.7	78.0	76.0	75.0	74.0	73.0	71.0	69.0	69.0	67.0
	11	72.8	85.9	66.3	79.0	78.0	76.0	75.0	73.0	71.0	69.0	68.0	68.0
	12	72.4	90.1	66.0	78.0	76.0	75.0	74.0	72.0	71.0	69.0	69.0	67.0
	13	72.0	88.9	61.7	78.0	77.0	75.0	74.0	72.0	71.0	66.0	65.0	63.0
	14	70.5	91.0	62.1	78.0	76.0	74.0	73.0	70.0	68.0	66.0	65.0	63.0
	15	71.4	89.6	64.0	78.0	77.0	75.0	74.0	71.0	69.0	67.0	66.0	65.0
	16	73.3	84.4	67.5	77.0	76.0	75.0	74.0	73.0	72.0	71.0	70.0	69.0
	17	72.0	88.5	64.9	76.0	75.0	74.0	73.0	72.0	71.0	68.0	67.0	66.0
	18	69.9	91.3	62.8	77.0	74.0	71.0	70.0	69.0	68.0	66.0	65.0	64.0
	19	68.3	79.7	62.6	74.0	73.0	71.0	70.0	68.0	67.0	65.0	64.0	63.0
	20	67.5	79.7	60.4	74.0	73.0	70.0	69.0	67.0	66.0	64.0	63.0	62.0
	21	67.0	80.0	61.2	73.0	71.0	69.0	69.0	67.0	66.0	64.0	63.0	62.0
Night	22	67.6	81.3	61.3	74.0	72.0	70.0	69.0	68.0	66.0	64.0	64.0	63.0
	23	66.4	79.5	57.6	73.0	72.0	70.0	69.0	66.0	65.0	62.0	61.0	59.0

URBAN CROSSROADS

24-Hour Noise Level Measurement Summary

				Energy Average Leq		24-Hour
Project Name:	Commercial Development	*JN:*	9896	*Day*	*Night*	*CNEL*
Location:	L4 - Located on Tamarind Avenue south of the Project site east of existing industrial uses and south of an existing residential home.	*Analyst:*	A. Wolfe	62.0	59.8	67.0
		Date:	1/12/2016			

Hourly Leq dBA Readings (unadjusted)



Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	58.7	78.8	40.4	71.0	69.0	64.0	60.0	51.0	47.0	42.0	42.0	41.0
	Max	64.6	89.1	49.1	76.0	74.0	70.0	68.0	60.0	56.0	51.0	50.0	49.0
Energy Average:		62.0	Average:		73.1	70.8	66.9	64.5	56.6	51.9	47.3	46.5	45.5
Night	Min	53.4	74.2	42.1	64.0	62.0	57.0	54.0	50.0	46.0	44.0	43.0	42.0
	Max	63.3	87.4	49.8	75.0	73.0	68.0	66.0	57.0	54.0	52.0	51.0	50.0
Energy Average:		59.8	Average:		69.9	67.4	63.0	60.3	53.3	50.6	48.0	47.7	46.7
Hourly Summary													
Night	0	53.4	74.2	46.0	64.0	62.0	57.0	54.0	50.0	49.0	47.0	47.0	46.0
	1	56.4	77.7	45.2	68.0	64.0	59.0	58.0	52.0	49.0	47.0	47.0	46.0
	2	55.5	79.3	45.9	67.0	64.0	58.0	56.0	52.0	51.0	48.0	48.0	47.0
	3	61.0	87.4	46.6	72.0	69.0	66.0	63.0	55.0	52.0	49.0	48.0	47.0
	4	62.3	84.1	49.8	73.0	71.0	68.0	65.0	57.0	54.0	52.0	51.0	50.0
	5	61.9	84.3	49.6	73.0	71.0	67.0	64.0	57.0	53.0	51.0	51.0	50.0
	6	63.3	85.3	49.0	75.0	73.0	68.0	66.0	56.0	54.0	50.0	50.0	49.0
Day	7	61.5	82.3	45.8	72.0	70.0	67.0	65.0	57.0	55.0	48.0	47.0	46.0
	8	63.2	84.6	48.2	73.0	72.0	69.0	67.0	60.0	56.0	51.0	50.0	49.0
	9	62.3	87.7	47.8	74.0	72.0	66.0	64.0	56.0	54.0	51.0	50.0	49.0
	10	60.4	82.1	47.2	72.0	70.0	66.0	63.0	54.0	51.0	49.0	48.0	47.0
	11	61.2	83.1	46.6	74.0	70.0	66.0	63.0	55.0	50.0	48.0	48.0	47.0
	12	59.6	78.8	46.4	71.0	69.0	65.0	63.0	56.0	51.0	48.0	48.0	47.0
	13	61.4	81.8	40.4	73.0	71.0	67.0	64.0	57.0	53.0	44.0	42.0	41.0
	14	62.5	87.6	40.5	74.0	71.0	67.0	65.0	58.0	49.0	42.0	42.0	41.0
	15	63.0	86.3	40.7	74.0	72.0	69.0	67.0	59.0	52.0	45.0	44.0	42.0
	16	64.6	86.4	49.1	76.0	74.0	70.0	68.0	59.0	54.0	51.0	50.0	49.0
	17	60.1	80.8	49.0	71.0	69.0	66.0	63.0	57.0	53.0	50.0	50.0	49.0
	18	62.1	83.8	44.4	73.0	71.0	68.0	66.0	59.0	52.0	47.0	46.0	45.0
	19	63.6	89.1	42.3	74.0	71.0	67.0	65.0	55.0	50.0	45.0	44.0	43.0
	20	61.8	82.8	43.9	75.0	71.0	67.0	64.0	56.0	52.0	47.0	46.0	45.0
	21	58.7	84.0	42.0	71.0	69.0	64.0	60.0	51.0	47.0	44.0	43.0	42.0
Night	22	56.4	79.4	42.9	68.0	66.0	61.0	58.0	51.0	47.0	44.0	44.0	43.0
	23	56.7	77.9	42.1	69.0	67.0	63.0	59.0	50.0	46.0	44.0	43.0	42.0

APPENDIX 6.1:

SITE PLAN

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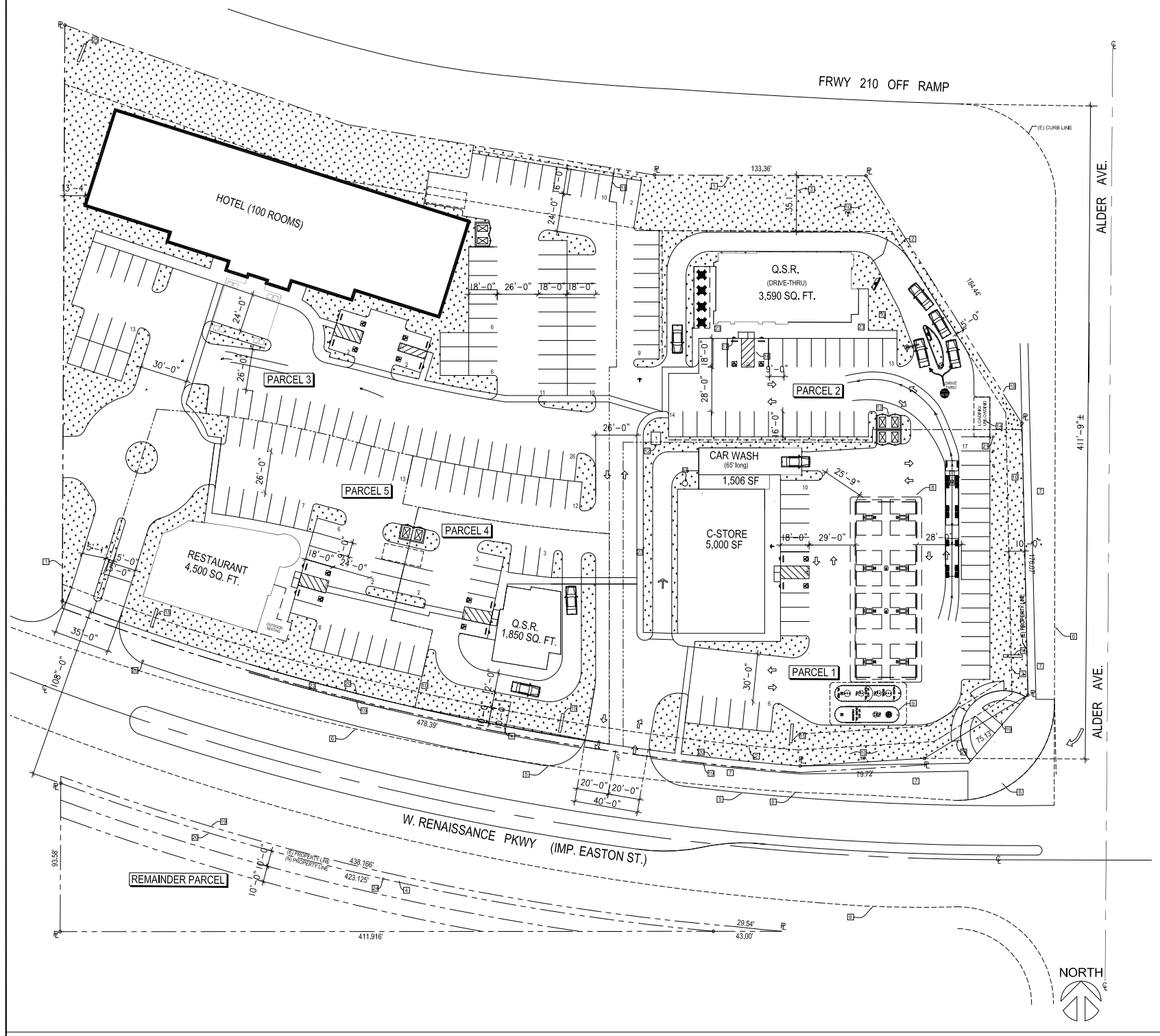
S.W.C. of Alder Ave., & Interstate 210 Freeway, City of Rialto, CA

Project Data

APN#: 0240-191-034, 035 & 043
ZONING: FREEWAY COMMERCIAL

Parcel	Site Area	Building Area	Parking Required	Parking Proposed	Uses
PARCEL 1	50,332 SF	6,506 SF	20	33+16 UNDER CANOPY	GAS STATION, CARWASH & C-STORE,1-STORY
PARCEL 2	36,564 SF	3,590 SF	47.87	38	QSR WITH DRIVE-THRU, 1-STORY
PARCEL 3	81,229 SF	63,000 SF	100	98	HOTEL (100) KEYS, 4-STORY
PARCEL 4	16,007 SF	1,850 SF	24.67	10	QSR WITH DRIVE-THRU, 1-STORY
PARCEL 5	27,937 SF	4,500 SF	36	36	FULL SERVICE RESTAURANT, 1-STORY
REMAINER PARCEL	16,293 SF	--	--	--	
SUB-TOTAL:	228,362 SF	79,446 SF	229	231	
STREET DEDICATION: 1,850+2,338=4,188 SF					
TOTAL: 232,550 SF (5.339 AC.)					

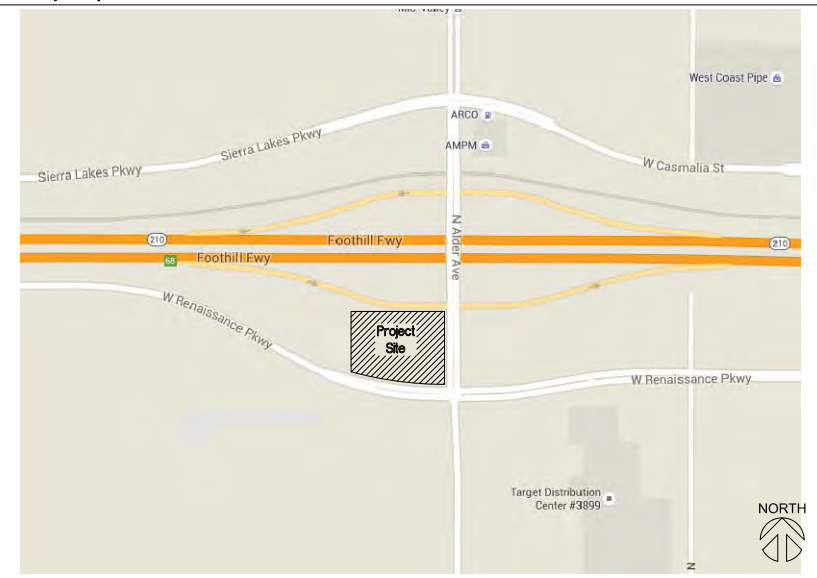


Proposed Site Plan

SCALE: 1"=30'-0"

Vicinity Map

NOT TO SCALE



Reference Notes

1. PROPERTY LINES
2. SET BACK LINES
3. EDISON EASEMENT
4. ROAD DEDICATION
5. (N) CONCRETE CURB & GUTTER
6. (E) CONCRETE CURB & GUTTER
7. (E) CONC. SIDEWALK
8. (N) 39'X110' CANOPY
9. (N) UNDER GROUND STORAGE TANKS
10. (N) LANDSCAPE
11. (N) HEALY TANK
12. (N) TRANSFORMER PAD
13. (N) TRASH ENCLOSURE
14. (N) LOADING/UNLOADING
15. (N) MONU. SIGN
16. (N) HCP PARKING
17. (N) HCP RAMP
18. (N) LINE OF PAD
19. (E) PROPERTY LINE
20. (N) PROPERTY LINE
21. (N) VACUUM
22. (N) 4' WIDE PATH OF TRAVEL, 2% X-SLOPE
23. (N) CONC. SIDEWALK
24. (N) CITY MONUMENT SIGN
25. (N) FWY PYLON SIGN 75 FT HEIGHT
26. (N) TRAFFIC SIGNAL

Project Data

CODE: CBC 2013
TYPE OF CONSTRUCTION: VA
SPRINKLER: YES
ZONING: C ZONE
BUILDING OCCUPANCY: A2, B & M
SITE AREA: = 232,550 S.F. (5.339 AC.)
BUILDING AREA:
PARCEL 1
GROCERY STORE (5,000 S.F.)
CARWASH (1,506 S.F.)
PARCEL 2
Q.S.R. (3,590 S.F.),
PARCEL 3
HOTEL - 100 KEY (14,325X3+17,397=60,372 S.F.)
PARCEL 4
Q.S.R. (1,850 S.F.)
RESTAURANT (4,500 S.F.)
REMAINDER PARCEL
VACANT (18,142 S.F.)
LOT COVERAGE:
= 5,000+1,506+3,590+1,850+4,500+17,397=33,843 SF
33,843/228,362 (NET)=14.82%±

PARKING CALCULATION

PARKING REQUIRED:

1)	C- STORE 5,000 S.F.(1/250)	20 CARS
2)	FOOD 3,590 S.F. (1/75 S.F.)	47.87 CARS
3)	HOTEL 100 KEYS	100 CARS
4)	FOOD 1,850 S.F. (1/75 S.F.)	24.67 CARS
	RESTAURANT (SIT-DN) 4,500 S.F. (1/125 S.F.)	36 CARS
	TOTAL REQUIRED:	229 CARS

PARKING PROVIDED:
STANDARD (9'X18'): 213 CARS
ACCESSIBLE (9'X18'): 12 CARS
DRIVE THRU (CREDIT) 6 CARS
231 CARS

LOADING/UNLOADING: 3 PROVIDED

LANDSCAPE PROVIDED: 69,344 SF± 67,244/228,362=29.45%

2335 FOOTHILL BLVD., #101, UPLAND, CA 91786
PHONE: (909) 608-7118 FAX: (909) 606-1137

PROJECT: COMMERCIAL DEVELOPMENT
ADDRESS: S.W.C. Alder Ave., & Interstate 210 Freeway, San Bernardino County, CA
CLIENT: SATER BROS 4000 EDISON AVE., CHINO, CA 91710

SHEET TITLE: S.W.C. Alder Ave., & Interstate 210 Freeway, San Bernardino County, CA

CONSULTANT:

JOB NO.
DRAWN BY:
SUPERVISED BY:
CHECKED BY:
PLAN CHECK
PERMIT SET
BID SET

REVISIONS
1 PLANNING REVISION 2/8/16
2 PLANNING REVISION 8/16/16

SHEET NO.:
A 1.01
OF SHEETS
SHEET

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APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	36,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,610 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.62	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.61	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.57	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.5	69.6	67.8	61.7	70.4	71.0
Medium Trucks:	65.2	63.7	57.4	55.8	64.3	64.5
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4
Vehicle Noise:	73.3	71.6	68.4	63.7	72.3	72.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	184	395	852
CNEL:	91	197	424	914

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,700 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.36	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.88	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.83	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	68.3	66.5	60.5	69.1	69.7
Medium Trucks:	64.0	62.5	56.1	54.6	63.0	63.3
Heavy Trucks:	64.8	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	72.0	70.3	67.2	62.5	71.0	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	151	326	702
CNEL:	75	162	349	753

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,700 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	170 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	32.0 feet
Centerline Dist. to Observer:	32.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-9.65	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-26.88	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-30.84	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.5	58.6	56.8	50.7	59.4	60.0
Medium Trucks:	54.3	52.8	46.4	44.8	53.3	53.5
Heavy Trucks:	55.1	53.7	44.6	45.9	54.2	54.4
Vehicle Noise:	62.3	60.6	57.4	52.7	61.3	61.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	8	18	39	84
CNEL:	9	19	42	90

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,310 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.24	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.47	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.43	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.8	66.9	65.2	59.1	67.7	68.4
Medium Trucks:	62.4	60.9	54.6	53.0	61.5	61.7
Heavy Trucks:	62.9	61.4	52.4	53.6	62.0	62.1
Vehicle Noise:	70.5	68.8	65.7	61.0	69.5	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	100	215	464
CNEL:	50	107	231	499

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,520 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.59	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.83	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.78	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	67.6	65.8	59.8	68.4	69.0
Medium Trucks:	63.1	61.6	55.2	53.7	62.1	62.4
Heavy Trucks:	63.5	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	71.2	69.4	66.4	61.6	70.2	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	110	238	512
CNEL:	55	119	256	551

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,900 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.38	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.86	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.8	60.7	69.4	70.0
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	276	595
CNEL:	64	138	297	639

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,800 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.14	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.09	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.05	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	68.3	66.6	60.5	69.1	69.7
Medium Trucks:	63.8	62.3	55.9	54.4	62.9	63.1
Heavy Trucks:	64.2	62.8	53.8	55.0	63.4	63.5
Vehicle Noise:	71.9	70.2	67.1	62.3	70.9	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	124	266	574
CNEL:	62	133	286	616

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,760 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.05	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.19	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.15	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.5	60.4	69.0	69.6
Medium Trucks:	63.7	62.2	55.8	54.3	62.8	63.0
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	71.8	70.1	67.0	62.2	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	262	565
CNEL:	61	131	282	607

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,620 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.31	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.55	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.51	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.1	60.0	68.7	69.3
Medium Trucks:	63.4	61.8	55.5	53.9	62.4	62.6
Heavy Trucks:	63.8	62.4	53.3	54.6	62.9	63.0
Vehicle Noise:	71.5	69.7	66.7	61.9	70.4	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	115	248	535
CNEL:	57	124	267	574

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,630 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.29	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.53	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.48	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.1	60.1	68.7	69.3
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	63.8	62.4	53.3	54.6	62.9	63.1
Vehicle Noise:	71.5	69.7	66.7	61.9	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	116	249	537
CNEL:	58	124	268	577

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,210 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.61	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.85	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.81	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.9	62.1	56.1	64.7	65.3
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	61.1	59.7	50.6	51.9	60.2	60.4
Vehicle Noise:	67.8	66.1	62.8	58.2	66.8	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	66	141	305
CNEL:	33	70	151	326

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	10,140 vehicles
Vehicle Speed:	70 mph
Near/Far Lane Distance:	138 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	161.0 feet
Centerline Dist. to Observer:	161.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	5.98	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-8.16	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-8.10	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.5	71.6	69.8	63.8	72.4	73.0
Medium Trucks:	69.5	68.0	61.7	60.1	68.6	68.8
Heavy Trucks:	72.6	71.2	62.2	63.4	71.8	71.9
Vehicle Noise:	77.0	75.3	71.0	67.5	76.0	76.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	403	868	1,869	4,027
CNEL:	426	917	1,976	4,256

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	96,700	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	9,670	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	5.77	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-8.36	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-8.30	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	71.4	69.6	63.6	72.2	72.8
Medium Trucks:	69.3	67.8	61.5	59.9	68.4	68.6
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7
Vehicle Noise:	76.7	75.1	70.8	67.3	75.8	76.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	390	840	1,811	3,901
CNEL:	412	888	1,914	4,124

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,000	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	700	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	61	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	52.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.50	0.97	-1.20	-4.66	0.000	0.000
Medium Trucks:	79.45	-20.74	1.00	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-24.69	1.00	-1.20	-5.41	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.7	62.8	61.1	55.0	63.6	64.2
Medium Trucks:	58.5	57.0	50.6	49.1	57.6	57.8
Heavy Trucks:	59.4	57.9	48.9	50.1	58.5	58.6
Vehicle Noise:	66.6	64.8	61.7	57.0	65.5	66.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	57	122	262
CNEL:	28	61	131	282

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,700	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	470	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.69	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-22.93	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-26.88	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.4	62.5	60.7	54.7	63.3	63.9
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3
Heavy Trucks:	58.4	57.0	47.9	49.2	57.5	57.7
Vehicle Noise:	66.1	64.3	61.3	56.5	65.1	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	109	234
CNEL:	25	54	117	252

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,000	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	400	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.39	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-23.63	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-27.58	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.7	61.8	60.0	54.0	62.6	63.2
Medium Trucks:	57.3	55.8	49.4	47.9	56.3	56.6
Heavy Trucks:	57.7	56.3	47.2	48.5	56.8	57.0
Vehicle Noise:	65.4	63.6	60.6	55.8	64.4	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	21	45	98	210
CNEL:	23	49	105	226

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	410 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.28	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-23.52	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-27.47	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.8	61.9	60.1	54.1	62.7	63.3
Medium Trucks:	57.4	55.9	49.5	48.0	56.4	56.7
Heavy Trucks:	57.8	56.4	47.4	48.6	57.0	57.1
Vehicle Noise:	65.5	63.7	60.7	55.9	64.5	64.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	21	46	99	214
CNEL:	23	50	107	230

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,220 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.54	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.78	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.74	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	66.6	64.9	58.8	67.4	68.0
Medium Trucks:	62.1	60.6	54.3	52.7	61.2	61.4
Heavy Trucks:	62.5	61.1	52.1	53.3	61.7	61.8
Vehicle Noise:	70.2	68.5	65.4	60.7	69.2	69.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	95	205	443
CNEL:	48	102	221	475

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,700 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,470 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.74	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.97	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.93	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	67.4	65.7	59.6	68.2	68.9
Medium Trucks:	62.9	61.4	55.1	53.5	62.0	62.2
Heavy Trucks:	63.4	61.9	52.9	54.1	62.5	62.6
Vehicle Noise:	71.0	69.3	66.2	61.5	70.0	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	50	108	233	501
CNEL:	54	116	250	538

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	36,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,650 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.67	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.57	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.52	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.5	69.6	67.9	61.8	70.4	71.0
Medium Trucks:	65.3	63.8	57.4	55.9	64.3	64.6
Heavy Trucks:	66.1	64.7	55.7	56.9	65.3	65.4
Vehicle Noise:	73.4	71.6	68.5	63.8	72.3	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	398	858
CNEL:	92	198	427	920

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,740	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	80	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	60.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.43	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.81	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.77	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.3	68.4	66.6	60.6	69.2	69.8
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0	64.2
Vehicle Noise:	72.1	70.4	67.2	62.5	71.1	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	71	153	329	709
CNEL:	76	164	353	760

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,500	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	250	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	12	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	32.0	feet
Centerline Dist. to Observer:	32.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.97	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-25.21	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-29.17	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.1	60.2	58.5	52.4	61.0	61.6
Medium Trucks:	55.9	54.4	48.1	46.5	55.0	55.2
Heavy Trucks:	56.8	55.4	46.3	47.6	55.9	56.1
Vehicle Noise:	64.0	62.2	59.1	54.4	63.0	63.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	11	23	50	108
CNEL:	12	25	54	116

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,330	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.17	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.41	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.36	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.9	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	62.5	61.0	54.6	53.1	61.5	61.8
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	70.6	68.9	65.8	61.0	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	101	218	469
CNEL:	50	109	234	504

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,630	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.29	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.53	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.48	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.1	60.1	68.7	69.3
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	63.8	62.4	53.3	54.6	62.9	63.1
Vehicle Noise:	71.5	69.7	66.7	61.9	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	116	249	537
CNEL:	58	124	268	577

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,100 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.81	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.42	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.38	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0	64.2
Vehicle Noise:	72.6	70.8	67.8	63.0	71.6	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	137	295	636
CNEL:	68	147	317	683

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,940 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.47	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.77	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.72	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.9	60.8	69.5	70.1
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4
Heavy Trucks:	64.6	63.1	54.1	55.4	63.7	63.8
Vehicle Noise:	72.3	70.5	67.5	62.7	71.2	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	60	130	280	603
CNEL:	65	140	301	648

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,900 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.38	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.86	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.8	60.7	69.4	70.0
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	276	595
CNEL:	64	138	297	639

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,760 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.05	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.19	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.15	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.5	60.4	69.0	69.6
Medium Trucks:	63.7	62.2	55.8	54.3	62.8	63.0
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	71.8	70.1	67.0	62.2	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	262	565
CNEL:	61	131	282	607

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,700	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,770	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.07	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.17	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.12	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	68.3	66.5	60.4	69.1	69.7
Medium Trucks:	63.7	62.2	55.9	54.3	62.8	63.0
Heavy Trucks:	64.2	62.7	53.7	55.0	63.3	63.4
Vehicle Noise:	71.9	70.1	67.1	62.3	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	263	567
CNEL:	61	131	283	609

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,500	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,250	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.47	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.71	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.66	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	59.9	58.4	52.0	50.5	59.0	59.2
Heavy Trucks:	61.2	59.8	50.8	52.0	60.4	60.5
Vehicle Noise:	67.9	66.2	62.9	58.4	66.9	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	67	144	311
CNEL:	33	72	155	333

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	10,200	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.01	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-8.13	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-8.07	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.5	71.6	69.8	63.8	72.4	73.0
Medium Trucks:	69.6	68.1	61.7	60.1	68.6	68.8
Heavy Trucks:	72.6	71.2	62.2	63.4	71.8	71.9
Vehicle Noise:	77.0	75.3	71.1	67.5	76.0	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	404	871	1,876	4,042
CNEL:	427	921	1,983	4,273

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	97,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	9,730	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	5.80	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-8.34	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-8.28	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	71.4	69.6	63.6	72.2	72.8
Medium Trucks:	69.4	67.8	61.5	59.9	68.4	68.6
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7
Vehicle Noise:	76.8	75.1	70.9	67.3	75.8	76.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	392	844	1,818	3,917
CNEL:	414	892	1,922	4,141

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,800 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	780 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	61 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	52.0 feet
Centerline Dist. to Observer:	52.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.03	0.97	-1.20	-4.66	0.000	0.000
Medium Trucks:	79.45	-20.27	1.00	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-24.22	1.00	-1.20	-5.41	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.2	63.3	61.5	55.5	64.1	64.7
Medium Trucks:	59.0	57.5	51.1	49.6	58.0	58.3
Heavy Trucks:	59.8	58.4	49.4	50.6	59.0	59.1
Vehicle Noise:	67.0	65.3	62.1	57.5	66.0	66.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	61	131	282
CNEL:	30	65	140	303

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	550 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.00	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-22.24	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-26.20	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.2	61.4	55.4	64.0	64.6
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	57.9
Heavy Trucks:	59.1	57.7	48.6	49.9	58.2	58.4
Vehicle Noise:	66.8	65.0	62.0	57.2	65.7	66.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	56	121	260
CNEL:	28	60	130	280

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	560 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.93	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-22.17	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-26.12	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.2	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	58.7	57.2	50.9	49.3	57.8	58.0
Heavy Trucks:	59.2	57.7	48.7	50.0	58.3	58.4
Vehicle Noise:	66.9	65.1	62.1	57.3	65.8	66.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	57	122	263
CNEL:	28	61	131	283

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	430 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.07	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-23.31	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-27.27	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.0	62.1	60.3	54.3	62.9	63.5
Medium Trucks:	57.6	56.1	49.7	48.2	56.6	56.9
Heavy Trucks:	58.0	56.6	47.6	48.8	57.2	57.3
Vehicle Noise:	65.7	64.0	60.9	56.1	64.7	65.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	22	48	103	221
CNEL:	24	51	110	237

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,250 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.44	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.68	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.63	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	66.7	65.0	58.9	67.5	68.1
Medium Trucks:	62.2	60.7	54.4	52.8	61.3	61.5
Heavy Trucks:	62.6	61.2	52.2	53.4	61.8	61.9
Vehicle Noise:	70.3	68.6	65.5	60.8	69.3	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	45	97	209	450
CNEL:	48	104	224	483

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,530 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.56	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.80	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.76	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	67.6	65.9	59.8	68.4	69.0
Medium Trucks:	63.1	61.6	55.2	53.7	62.2	62.4
Heavy Trucks:	63.5	62.1	53.1	54.3	62.7	62.8
Vehicle Noise:	71.2	69.5	66.4	61.6	70.2	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	111	239	515
CNEL:	55	119	257	553

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,910 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.97	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.22	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.9	68.1	62.1	70.7	71.3
Medium Trucks:	65.6	64.1	57.7	56.2	64.6	64.9
Heavy Trucks:	66.4	65.0	56.0	57.2	65.6	65.7
Vehicle Noise:	73.7	71.9	68.8	64.1	72.6	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	90	194	417	898
CNEL:	96	208	447	964

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,920 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.70	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.54	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.49	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.9	60.8	69.4	70.1
Medium Trucks:	64.3	62.8	56.5	54.9	63.4	63.6
Heavy Trucks:	65.2	63.7	54.7	56.0	64.3	64.4
Vehicle Noise:	72.4	70.6	67.5	62.8	71.4	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	159	343	740
CNEL:	79	171	368	793

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,800 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	180 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	32.0 feet
Centerline Dist. to Observer:	32.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-9.40	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-26.64	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-30.59	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.7	58.8	57.0	51.0	59.6	60.2
Medium Trucks:	54.5	53.0	46.6	45.1	53.6	53.8
Heavy Trucks:	55.4	53.9	44.9	46.1	54.5	54.6
Vehicle Noise:	62.6	60.8	57.7	53.0	61.5	62.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	9	19	40	87
CNEL:	9	20	43	93

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,410 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.92	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.15	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.11	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	67.3	65.5	59.4	68.1	68.7
Medium Trucks:	62.8	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	63.2	61.8	52.7	54.0	62.3	62.4
Vehicle Noise:	70.9	69.1	66.1	61.3	69.8	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	226	487
CNEL:	52	113	243	524

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,640 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.26	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.50	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.45	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.2	60.1	68.7	69.3
Medium Trucks:	63.4	61.9	55.5	54.0	62.5	62.7
Heavy Trucks:	63.8	62.4	53.4	54.6	63.0	63.1
Vehicle Noise:	71.5	69.8	66.7	61.9	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	116	250	539
CNEL:	58	125	269	579

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,050 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.71	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.53	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.49	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.8	68.9	67.1	61.1	69.7	70.3
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.7
Heavy Trucks:	64.8	63.4	54.3	55.6	63.9	64.1
Vehicle Noise:	72.5	70.7	67.7	62.9	71.5	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	135	290	626
CNEL:	67	145	312	672

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,950 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.49	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.75	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.70	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	68.7	66.9	60.9	69.5	70.1
Medium Trucks:	64.2	62.7	56.3	54.7	63.2	63.4
Heavy Trucks:	64.6	63.2	54.1	55.4	63.7	63.9
Vehicle Noise:	72.3	70.5	67.5	62.7	71.2	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	61	130	281	605
CNEL:	65	140	302	650

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,900 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.38	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.86	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.8	60.7	69.4	70.0
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	276	595
CNEL:	64	138	297	639

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,750 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.02	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.22	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.17	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.4	60.4	69.0	69.6
Medium Trucks:	63.7	62.2	55.8	54.3	62.7	63.0
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	71.8	70.1	67.0	62.2	70.8	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	261	563
CNEL:	60	130	281	605

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,760 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.05	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.19	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.15	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.5	60.4	69.0	69.6
Medium Trucks:	63.7	62.2	55.8	54.3	62.8	63.0
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	71.8	70.1	67.0	62.2	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	262	565
CNEL:	61	131	282	607

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,100	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,310	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.27	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.51	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.46	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	64.2	62.5	56.4	65.0	65.6
Medium Trucks:	60.1	58.6	52.2	50.7	59.2	59.4
Heavy Trucks:	61.4	60.0	51.0	52.2	60.6	60.7
Vehicle Noise:	68.1	66.4	63.1	58.6	67.1	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	69	149	321
CNEL:	34	74	160	344

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	10,980	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.33	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-7.81	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-7.75	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.8	71.9	70.2	64.1	72.7	73.3
Medium Trucks:	69.9	68.4	62.0	60.5	68.9	69.2
Heavy Trucks:	73.0	71.5	62.5	63.8	72.1	72.2
Vehicle Noise:	77.3	75.7	71.4	67.8	76.3	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	425	915	1,971	4,246
CNEL:	449	967	2,083	4,488

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	10,470	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.12	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-8.02	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-7.96	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.6	71.7	70.0	63.9	72.5	73.1
Medium Trucks:	69.7	68.2	61.8	60.3	68.7	69.0
Heavy Trucks:	72.8	71.3	62.3	63.5	71.9	72.0
Vehicle Noise:	77.1	75.4	71.2	67.6	76.1	76.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	411	886	1,909	4,114
CNEL:	435	937	2,018	4,348

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,600	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	760	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	61	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	52.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.14	0.97	-1.20	-4.66	0.000	0.000
Medium Trucks:	79.45	-20.38	1.00	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-24.34	1.00	-1.20	-5.41	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.2	61.4	55.4	64.0	64.6
Medium Trucks:	58.9	57.4	51.0	49.5	57.9	58.1
Heavy Trucks:	59.7	58.3	49.3	50.5	58.9	59.0
Vehicle Noise:	66.9	65.2	62.0	57.4	65.9	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	60	129	277
CNEL:	30	64	138	297

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,100	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	510	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.33	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-22.57	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-26.53	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.7	62.8	61.1	55.0	63.6	64.3
Medium Trucks:	58.3	56.8	50.5	48.9	57.4	57.6
Heavy Trucks:	58.8	57.3	48.3	49.5	57.9	58.0
Vehicle Noise:	66.5	64.7	61.6	56.9	65.4	65.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	53	115	247
CNEL:	27	57	123	266

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	440	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.97	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-23.21	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-27.17	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.1	62.2	60.4	54.4	63.0	63.6
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0
Heavy Trucks:	58.1	56.7	47.7	48.9	57.3	57.4
Vehicle Noise:	65.8	64.1	61.0	56.2	64.8	65.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	22	48	104	224
CNEL:	24	52	112	241

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	440	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.97	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-23.21	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-27.17	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.1	62.2	60.4	54.4	63.0	63.6
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0
Heavy Trucks:	58.1	56.7	47.7	48.9	57.3	57.4
Vehicle Noise:	65.8	64.1	61.0	56.2	64.8	65.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	22	48	104	224
CNEL:	24	52	112	241

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,200	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,320	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.20	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.44	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.40	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.9	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	62.5	61.0	54.6	53.1	61.5	61.7
Heavy Trucks:	62.9	61.5	52.4	53.7	62.0	62.2
Vehicle Noise:	70.6	68.8	65.8	61.0	69.5	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	100	217	466
CNEL:	50	108	233	501

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EA 2019 Without Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,900 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,590 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.39	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.63	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.59	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.7	67.8	66.0	60.0	68.6	69.2
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0
Vehicle Noise:	71.4	69.6	66.6	61.8	70.4	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	53	114	245	528
CNEL:	57	122	263	567

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,950 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.01	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.22	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.18	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.9	70.0	68.2	62.1	70.8	71.4
Medium Trucks:	65.6	64.1	57.8	56.2	64.7	64.9
Heavy Trucks:	66.5	65.1	56.0	57.3	65.6	65.8
Vehicle Noise:	73.7	72.0	68.8	64.1	72.7	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	90	195	420	905
CNEL:	97	209	450	970

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,960 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.76	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.48	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.43	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	68.7	66.9	60.9	69.5	70.1
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.7
Heavy Trucks:	65.2	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	72.4	70.7	67.6	62.9	71.4	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	75	161	346	746
CNEL:	80	172	372	800

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	260 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	32.0 feet
Centerline Dist. to Observer:	32.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.80	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-25.04	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-29.00	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	60.4	58.6	52.6	61.2	61.8
Medium Trucks:	56.1	54.6	48.2	46.7	55.2	55.4
Heavy Trucks:	56.9	55.5	46.5	47.7	56.1	56.2
Vehicle Noise:	64.2	62.4	59.2	54.6	63.1	63.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	11	24	52	111
CNEL:	12	26	55	119

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,440	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.82	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.06	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.02	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	67.4	65.6	59.5	68.2	68.8
Medium Trucks:	62.8	61.3	55.0	53.4	61.9	62.1
Heavy Trucks:	63.3	61.8	52.8	54.1	62.4	62.5
Vehicle Noise:	71.0	69.2	66.2	61.4	69.9	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	106	229	494
CNEL:	53	114	246	531

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,600	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,760	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.05	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.19	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.15	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	68.2	66.5	60.4	69.0	69.6
Medium Trucks:	63.7	62.2	55.8	54.3	62.8	63.0
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	71.8	70.1	67.0	62.2	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	262	565
CNEL:	61	131	282	607

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,600	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,260	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.13	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.11	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.06	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.2	69.3	67.5	61.5	70.1	70.7
Medium Trucks:	64.8	63.3	56.9	55.4	63.8	64.1
Heavy Trucks:	65.2	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	72.9	71.2	68.1	63.3	71.9	72.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	67	144	310	668
CNEL:	72	155	333	717

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,900	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,090	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.79	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.45	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.40	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	64.5	63.0	56.6	55.0	63.5	63.7
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0	64.2
Vehicle Noise:	72.6	70.8	67.8	63.0	71.5	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	137	294	634
CNEL:	68	147	316	681

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,040 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.69	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.55	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.51	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	64.4	62.9	56.5	54.9	63.4	63.6
Heavy Trucks:	64.8	63.4	54.3	55.6	63.9	64.1
Vehicle Noise:	72.5	70.7	67.7	62.9	71.4	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	62	134	289	624
CNEL:	67	144	311	670

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,900 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,890 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.36	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.88	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.84	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.4	68.5	66.8	60.7	69.3	69.9
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.4	63.0	54.0	55.2	63.6	63.7
Vehicle Noise:	72.1	70.4	67.3	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	593
CNEL:	64	137	295	637

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,900 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.38	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.86	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.8	60.7	69.4	70.0
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	276	595
CNEL:	64	138	297	639

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,350 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.14	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-17.37	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-21.33	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	64.4	62.6	56.5	65.2	65.8
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5
Heavy Trucks:	61.6	60.1	51.1	52.4	60.7	60.8
Vehicle Noise:	68.3	66.5	63.3	58.7	67.2	67.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	71	152	328
CNEL:	35	76	163	351

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	11,040	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.35	-7.06	-1.20	*-4.82*	0.000	0.000
Medium Trucks:	85.95	-7.79	-7.06	-1.20	*-4.89*	0.000	0.000
Heavy Trucks:	88.97	-7.73	-7.06	-1.20	*-5.06*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.9	72.0	70.2	64.1	72.8	73.4
Medium Trucks:	69.9	68.4	62.0	60.5	69.0	69.2
Heavy Trucks:	73.0	71.6	62.5	63.8	72.1	72.3
Vehicle Noise:	77.3	75.7	71.4	67.9	76.3	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	426	918	1,978	4,261
CNEL:	450	971	2,091	4,505

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	10,530	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.14	-7.06	-1.20	*-4.82*	0.000	0.000
Medium Trucks:	85.95	-7.99	-7.06	-1.20	*-4.89*	0.000	0.000
Heavy Trucks:	88.97	-7.93	-7.06	-1.20	*-5.06*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.7	71.8	70.0	63.9	72.6	73.2
Medium Trucks:	69.7	68.2	61.8	60.3	68.7	69.0
Heavy Trucks:	72.8	71.4	62.3	63.6	71.9	72.1
Vehicle Noise:	77.1	75.5	71.2	67.6	76.1	76.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	413	890	1,917	4,129
CNEL:	436	940	2,026	4,365

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	840	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	61	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	52.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.71	0.97	-1.20	*-4.66*	0.000	0.000
Medium Trucks:	79.45	-19.95	1.00	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.90	1.00	-1.20	*-5.41*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.6	61.9	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.9	58.4	58.6
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4
Vehicle Noise:	67.4	65.6	62.5	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	64	138	296
CNEL:	32	68	148	318

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,900	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	590	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.70	1.08	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.94	1.11	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-25.89	1.11	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.5	61.7	55.7	64.3	64.9
Medium Trucks:	59.0	57.5	51.1	49.6	58.0	58.2
Heavy Trucks:	59.4	58.0	48.9	50.2	58.5	58.7
Vehicle Noise:	67.1	65.3	62.3	57.5	66.1	66.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	59	127	273
CNEL:	29	63	136	293

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	600 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.63	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.87	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-25.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	59.0	57.5	51.2	49.6	58.1	58.3
Heavy Trucks:	59.5	58.0	49.0	50.3	58.6	58.7
Vehicle Noise:	67.2	65.4	62.4	57.6	66.1	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	59	128	276
CNEL:	30	64	138	296

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,700 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	470 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.69	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-22.93	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-26.88	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.4	62.5	60.7	54.7	63.3	63.9
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3
Heavy Trucks:	58.4	57.0	47.9	49.2	57.5	57.7
Vehicle Noise:	66.1	64.3	61.3	56.5	65.1	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	109	234
CNEL:	25	54	117	252

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,350 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.11	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.34	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.30	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	67.1	65.3	59.3	67.9	68.5
Medium Trucks:	62.6	61.1	54.7	53.2	61.6	61.8
Heavy Trucks:	63.0	61.6	52.5	53.8	62.1	62.3
Vehicle Noise:	70.7	68.9	65.9	61.1	69.6	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	102	220	473
CNEL:	51	110	236	509

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAP 2019 With Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,650 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.23	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.47	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.43	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.8	67.9	66.2	60.1	68.7	69.4
Medium Trucks:	63.4	61.9	55.6	54.0	62.5	62.7
Heavy Trucks:	63.9	62.4	53.4	54.6	63.0	63.1
Vehicle Noise:	71.5	69.8	66.7	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	54	117	251	541
CNEL:	58	125	270	581

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,910 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.97	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.22	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.9	68.1	62.1	70.7	71.3
Medium Trucks:	65.6	64.1	57.7	56.2	64.6	64.9
Heavy Trucks:	66.4	65.0	56.0	57.2	65.6	65.7
Vehicle Noise:	73.7	71.9	68.8	64.1	72.6	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	90	194	417	898
CNEL:	96	208	447	964

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,920 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.70	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.54	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.49	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.9	60.8	69.4	70.1
Medium Trucks:	64.3	62.8	56.5	54.9	63.4	63.6
Heavy Trucks:	65.2	63.7	54.7	56.0	64.3	64.4
Vehicle Noise:	72.4	70.6	67.5	62.8	71.4	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	159	343	740
CNEL:	79	171	368	793

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,800 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	180 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	32.0 feet
Centerline Dist. to Observer:	32.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-9.40	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-26.64	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-30.59	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.7	58.8	57.0	51.0	59.6	60.2
Medium Trucks:	54.5	53.0	46.6	45.1	53.6	53.8
Heavy Trucks:	55.4	53.9	44.9	46.1	54.5	54.6
Vehicle Noise:	62.6	60.8	57.7	53.0	61.5	62.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	9	19	40	87
CNEL:	9	20	43	93

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,150 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.92	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.32	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.28	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.0	69.1	67.3	61.3	69.9	70.5
Medium Trucks:	64.6	63.1	56.7	55.2	63.6	63.9
Heavy Trucks:	65.0	63.6	54.5	55.8	64.2	64.3
Vehicle Noise:	72.7	70.9	67.9	63.1	71.7	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	65	139	300	646
CNEL:	69	149	322	694

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,100	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,710	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.92	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-15.32	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.27	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.0	70.1	68.3	62.3	70.9	71.5
Medium Trucks:	65.6	64.1	57.7	56.2	64.6	64.9
Heavy Trucks:	66.0	64.6	55.6	56.8	65.2	65.3
Vehicle Noise:	73.7	72.0	68.9	64.1	72.7	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	75	162	350	753
CNEL:	81	174	376	809

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,000	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,500	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.03	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.21	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.16	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.1	71.2	69.4	63.4	72.0	72.6
Medium Trucks:	66.7	65.2	58.8	57.3	65.7	66.0
Heavy Trucks:	67.1	65.7	56.7	57.9	66.3	66.4
Vehicle Noise:	74.8	73.1	70.0	65.2	73.8	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	89	193	415	894
CNEL:	96	207	446	960

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,900	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,290	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.76	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.47	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.43	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.8	70.9	69.2	63.1	71.7	72.4
Medium Trucks:	66.4	64.9	58.6	57.0	65.5	65.7
Heavy Trucks:	66.9	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	74.5	72.8	69.7	65.0	73.5	74.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	86	185	398	857
CNEL:	92	198	428	921

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,100	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,110	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.52	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.72	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.68	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.6	70.7	68.9	62.9	71.5	72.1
Medium Trucks:	66.2	64.7	58.3	56.8	65.2	65.5
Heavy Trucks:	66.6	65.2	56.2	57.4	65.8	65.9
Vehicle Noise:	74.3	72.5	69.5	64.7	73.3	73.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	83	178	383	826
CNEL:	89	191	412	887

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,850 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.14	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-15.10	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.05	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.2	70.3	68.6	62.5	71.1	71.7
Medium Trucks:	65.8	64.3	57.9	56.4	64.9	65.1
Heavy Trucks:	66.2	64.8	55.8	57.0	65.4	65.5
Vehicle Noise:	73.9	72.2	69.1	64.3	72.9	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	78	168	362	779
CNEL:	84	180	389	837

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,140 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.90	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.34	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.30	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.0	69.1	67.3	61.3	69.9	70.5
Medium Trucks:	64.6	63.1	56.7	55.2	63.6	63.8
Heavy Trucks:	65.0	63.6	54.5	55.8	64.1	64.3
Vehicle Noise:	72.7	70.9	67.9	63.1	71.6	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	139	299	644
CNEL:	69	149	321	692

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,550 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.46	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-16.77	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.73	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	65.0	63.2	57.1	65.8	66.4
Medium Trucks:	60.8	59.3	53.0	51.4	59.9	60.1
Heavy Trucks:	62.2	60.7	51.7	53.0	61.3	61.4
Vehicle Noise:	68.9	67.1	63.9	59.3	67.8	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	77	167	359
CNEL:	38	83	179	385

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	###### vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	11,610 vehicles
Vehicle Speed:	70 mph
Near/Far Lane Distance:	138 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	161.0 feet
Centerline Dist. to Observer:	161.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.57	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-7.57	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-7.51	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	70.1	68.6	62.3	60.7	69.2	69.4
Heavy Trucks:	73.2	71.8	62.7	64.0	72.3	72.5
Vehicle Noise:	77.5	75.9	71.6	68.1	76.6	76.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	441	949	2,046	4,407
CNEL:	466	1,004	2,162	4,659

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	11,020	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.34	-7.06	-1.20	*-4.82*	0.000	0.000
Medium Trucks:	85.95	-7.80	-7.06	-1.20	*-4.89*	0.000	0.000
Heavy Trucks:	88.97	-7.74	-7.06	-1.20	*-5.06*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.8	71.9	70.2	64.1	72.8	73.4
Medium Trucks:	69.9	68.4	62.0	60.5	68.9	69.2
Heavy Trucks:	73.0	71.6	62.5	63.8	72.1	72.2
Vehicle Noise:	77.3	75.7	71.4	67.8	76.3	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	426	917	1,976	4,256
CNEL:	450	969	2,088	4,499

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,600	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	860	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	61	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	52.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.61	0.97	-1.20	*-4.66*	0.000	0.000
Medium Trucks:	79.45	-19.84	1.00	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.80	1.00	-1.20	*-5.41*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.7	62.0	55.9	64.5	65.1
Medium Trucks:	59.4	57.9	51.5	50.0	58.5	58.7
Heavy Trucks:	60.3	58.8	49.8	51.0	59.4	59.5
Vehicle Noise:	67.5	65.7	62.6	57.9	66.4	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	65	140	301
CNEL:	32	70	150	323

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	630	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.42	1.08	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.65	1.11	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-25.61	1.11	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.0	55.9	64.6	65.2
Medium Trucks:	59.3	57.7	51.4	49.8	58.3	58.5
Heavy Trucks:	59.7	58.3	49.2	50.5	58.8	58.9
Vehicle Noise:	67.4	65.6	62.6	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	61	132	285
CNEL:	31	66	142	306

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,500	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	550	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-5.00	1.08	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-22.24	1.11	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-26.20	1.11	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.2	61.4	55.4	64.0	64.6
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	57.9
Heavy Trucks:	59.1	57.7	48.6	49.9	58.2	58.4
Vehicle Noise:	66.8	65.0	62.0	57.2	65.7	66.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	56	121	260
CNEL:	28	60	130	280

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	650 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.28	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.52	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-25.47	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.9	62.1	56.1	64.7	65.3
Medium Trucks:	59.4	57.9	51.5	50.0	58.4	58.7
Heavy Trucks:	59.8	58.4	49.4	50.6	59.0	59.1
Vehicle Noise:	67.5	65.8	62.7	57.9	66.5	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	135	291
CNEL:	31	67	145	312

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,400 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.95	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.19	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.14	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.1	67.2	65.5	59.4	68.0	68.6
Medium Trucks:	62.7	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	70.8	69.1	66.0	61.3	69.8	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	225	485
CNEL:	52	112	242	521

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAC 2019 Without Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,840 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.24	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-17.00	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.95	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.3	68.4	66.7	60.6	69.2	69.8
Medium Trucks:	63.9	62.4	56.0	54.5	63.0	63.2
Heavy Trucks:	64.3	62.9	53.9	55.1	63.5	63.6
Vehicle Noise:	72.0	70.3	67.2	62.4	71.0	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	58	125	270	582
CNEL:	63	135	290	625

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Sierra Av.
Road Segment: n/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,950 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.01	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.22	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.18	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.9	70.0	68.2	62.1	70.8	71.4
Medium Trucks:	65.6	64.1	57.8	56.2	64.7	64.9
Heavy Trucks:	66.5	65.1	56.0	57.3	65.6	65.8
Vehicle Noise:	73.7	72.0	68.8	64.1	72.7	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	90	195	420	905
CNEL:	97	209	450	970

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Sierra Av.
Road Segment: s/o Highland Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,960 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.76	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.48	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.43	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.6	68.7	66.9	60.9	69.5	70.1
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.7
Heavy Trucks:	65.2	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	72.4	70.7	67.6	62.9	71.4	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	75	161	346	746
CNEL:	80	172	372	800

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Palmetto Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	260 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	32.0 feet
Centerline Dist. to Observer:	32.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	31.828
Medium Trucks:	31.548
Heavy Trucks:	31.576

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.80	2.84	-1.20	-4.51	0.000	0.000
Medium Trucks:	79.45	-25.04	2.90	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-29.00	2.89	-1.20	-5.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	60.4	58.6	52.6	61.2	61.8
Medium Trucks:	56.1	54.6	48.2	46.7	55.2	55.4
Heavy Trucks:	56.9	55.5	46.5	47.7	56.1	56.2
Vehicle Noise:	64.2	62.4	59.2	54.6	63.1	63.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	11	24	52	111
CNEL:	12	26	55	119

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: n/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,800 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,180 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.98	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.26	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.22	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.1	69.2	67.4	61.3	70.0	70.6
Medium Trucks:	64.6	63.1	56.8	55.2	63.7	63.9
Heavy Trucks:	65.1	63.6	54.6	55.9	64.2	64.3
Vehicle Noise:	72.8	71.0	68.0	63.2	71.7	72.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	65	140	302	652
CNEL:	70	151	325	700

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 WB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	28,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,830 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.11	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-15.13	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.08	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.2	70.3	68.5	62.5	71.1	71.7
Medium Trucks:	65.8	64.3	57.9	56.4	64.8	65.1
Heavy Trucks:	66.2	64.8	55.7	57.0	65.3	65.5
Vehicle Noise:	73.9	72.1	69.1	64.3	72.9	73.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	78	167	360	776
CNEL:	83	180	387	833

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: s/o SR-210 EB Ramps
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	37,100	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,710	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.29	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-13.95	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.91	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.4	71.5	69.7	63.6	72.3	72.9
Medium Trucks:	67.0	65.4	59.1	57.5	66.0	66.2
Heavy Trucks:	67.4	66.0	56.9	58.2	66.5	66.6
Vehicle Noise:	75.1	73.3	70.3	65.5	74.0	74.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	93	200	431	929
CNEL:	100	215	463	998

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Renaissance Pkwy.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	34,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,430	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.94	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.29	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.25	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.0	71.1	69.4	63.3	71.9	72.5
Medium Trucks:	66.6	65.1	58.7	57.2	65.7	65.9
Heavy Trucks:	67.0	65.6	56.6	57.8	66.2	66.3
Vehicle Noise:	74.7	73.0	69.9	65.1	73.7	74.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	88	190	409	882
CNEL:	95	204	440	947

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: n/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,500	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	3,250	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.71	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.53	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.48	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.8	70.9	69.1	63.1	71.7	72.3
Medium Trucks:	66.4	64.9	58.5	57.0	65.4	65.7
Heavy Trucks:	66.8	65.4	56.3	57.6	65.9	66.1
Vehicle Noise:	74.5	72.7	69.7	64.9	73.5	73.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	183	395	851
CNEL:	91	197	424	914

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Walnut Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,900	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,990	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.35	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-14.89	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-18.85	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.4	70.5	68.8	62.7	71.3	71.9
Medium Trucks:	66.0	64.5	58.1	56.6	65.1	65.3
Heavy Trucks:	66.4	65.0	56.0	57.2	65.6	65.7
Vehicle Noise:	74.1	72.4	69.3	64.6	73.1	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	80	173	373	805
CNEL:	86	186	401	864

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: n/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,800	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	2,280	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.17	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.07	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.02	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.2	69.4	67.6	61.5	70.2	70.8
Medium Trucks:	64.8	63.3	57.0	55.4	63.9	64.1
Heavy Trucks:	65.3	63.8	54.8	56.1	64.4	64.5
Vehicle Noise:	73.0	71.2	68.2	63.4	71.9	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	67	145	312	671
CNEL:	72	155	335	721

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Alder Av.
Road Segment: s/o Baseline Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,900	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,590	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	0.57	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	77.72	-16.66	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-20.62	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.0	65.1	63.3	57.2	65.9	66.5
Medium Trucks:	61.0	59.5	53.1	51.5	60.0	60.2
Heavy Trucks:	62.3	60.9	51.8	53.1	61.4	61.6
Vehicle Noise:	69.0	67.2	64.0	59.4	68.0	68.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	79	170	365
CNEL:	39	84	182	391

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: SR-210 Fwy.
Road Segment: w/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	11,670	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.59	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-7.55	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-7.49	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	70.1	68.6	62.3	60.7	69.2	69.4
Heavy Trucks:	73.2	71.8	62.8	64.0	72.4	72.5
Vehicle Noise:	77.6	75.9	71.7	68.1	76.6	76.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	442	953	2,053	4,422
CNEL:	467	1,007	2,170	4,675

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: SR-210 Fwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	######	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	11,080	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	161.0	feet
Centerline Dist. to Observer:	161.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.80%
Medium Trucks:	84.8%	4.9%	10.3%	3.58%
Heavy Trucks:	86.5%	2.7%	10.8%	3.63%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	145.551
Medium Trucks:	145.490
Heavy Trucks:	145.496

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	6.36	-7.06	-1.20	-4.82	0.000	0.000
Medium Trucks:	85.95	-7.77	-7.06	-1.20	-4.89	0.000	0.000
Heavy Trucks:	88.97	-7.71	-7.06	-1.20	-5.06	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.9	72.0	70.2	64.2	72.8	73.4
Medium Trucks:	69.9	68.4	62.1	60.5	69.0	69.2
Heavy Trucks:	73.0	71.6	62.5	63.8	72.1	72.3
Vehicle Noise:	77.3	75.7	71.4	67.9	76.4	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	427	920	1,983	4,272
CNEL:	452	973	2,096	4,516

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Highland Av.
Road Segment: e/o Sierra Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	940 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	61 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	52.0 feet
Centerline Dist. to Observer:	52.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	42.412
Medium Trucks:	42.203
Heavy Trucks:	42.223

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.22	0.97	-1.20	-4.66	0.000	0.000
Medium Trucks:	79.45	-19.46	1.00	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-23.41	1.00	-1.20	-5.41	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.0	64.1	62.3	56.3	64.9	65.5
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	60.6	59.2	50.2	51.4	59.8	59.9
Vehicle Noise:	67.9	66.1	63.0	58.3	66.8	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	69	148	319
CNEL:	34	74	159	343

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: w/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	710 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.90	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.13	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-25.09	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	60.2	58.8	49.7	51.0	59.3	59.5
Vehicle Noise:	67.9	66.1	63.1	58.3	66.9	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	66	143	309
CNEL:	33	71	154	331

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Palmetto Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,100 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	710 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.90	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.13	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-25.09	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1
Heavy Trucks:	60.2	58.8	49.7	51.0	59.3	59.5
Vehicle Noise:	67.9	66.1	63.1	58.3	66.9	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	31	66	143	309
CNEL:	33	71	154	331

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Renaissance Pkwy.
Road Segment: e/o Alder Av.
Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,800 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	680 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	56 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.08	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.32	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-25.28	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.0	64.1	62.3	56.3	64.9	65.5
Medium Trucks:	59.6	58.1	51.7	50.2	58.6	58.9
Heavy Trucks:	60.0	58.6	49.5	50.8	59.2	59.3
Vehicle Noise:	67.7	65.9	62.9	58.1	66.7	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	30	65	139	300
CNEL:	32	69	149	322

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Baseline Av.
Road Segment: w/o Alder Av.

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,300	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,430	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.86	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.09	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-22.05	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	67.3	65.6	59.5	68.1	68.7
Medium Trucks:	62.8	61.3	54.9	53.4	61.9	62.1
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4	62.5
Vehicle Noise:	70.9	69.2	66.1	61.3	69.9	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	106	228	492
CNEL:	53	114	245	529

Wednesday, January 06, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: EAPC 2019 With Project
Road Name: Baseline Av.
Road Segment: e/o Alder Av.

Project Name: Alder Av. & SR 210 Com
Job Number: 9896

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,000	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,900	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	56	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.725
Medium Trucks:	41.513
Heavy Trucks:	41.534

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.38	1.08	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-16.86	1.11	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.82	1.11	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	68.6	66.8	60.7	69.4	70.0
Medium Trucks:	64.0	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	276	595
CNEL:	64	138	297	639

Wednesday, January 06, 2016

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APPENDIX 8.1:

ON-SITE TRAFFIC NOISE CALCULATIONS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
Road Name: SR-210
Lot No: Hotel

Project Name: Alder Av. & SR-210 Commercial
Job Number: 9896
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	233,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	23,340	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	341.0	feet
Centerline Dist. to Observer:	341.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	1,517.0	feet
Road Elevation:	1,509.0	feet
Barrier Elevation:	1,517.0	feet
Road Grade:	0.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	90.00%
Medium Trucks:	84.8%	4.9%	10.3%	5.24%
Heavy Trucks:	86.5%	2.7%	10.8%	4.76%

Noise Source Elevations (in feet)

Autos:	1,509.000		
Medium Trucks:	1,511.297		
Heavy Trucks:	1,517.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	334.199
Medium Trucks:	334.118
Heavy Trucks:	333.983

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	76.79	9.47	-12.48	-1.20	*-4.74*	0.000	0.000
Medium Trucks:	82.53	-2.88	-12.48	-1.20	*-4.77*	0.000	0.000
Heavy Trucks:	85.83	-3.30	-12.47	-1.20	*-4.86*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.9	71.5	72.1
Medium Trucks:	66.0	64.5	58.1	56.6	65.0	65.3
Heavy Trucks:	68.9	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.9	71.5	72.1
Medium Trucks:	66.0	64.5	58.1	56.6	65.0	65.3
Heavy Trucks:	68.9	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.2

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
Road Name: SR-210
Lot No: Outdoor Seating

Project Name: Alder Av. & SR-210 Commercial
Job Number: 9896
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	233,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	23,340	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	441.0	feet
Centerline Dist. to Observer:	441.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	1,516.0	feet
Road Elevation:	1,504.0	feet
Barrier Elevation:	1,516.0	feet
Road Grade:	0.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	90.00%
Medium Trucks:	84.8%	4.9%	10.3%	5.24%
Heavy Trucks:	86.5%	2.7%	10.8%	4.76%

Noise Source Elevations (in feet)

Autos:	1,504.000		
Medium Trucks:	1,506.297		
Heavy Trucks:	1,512.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	435.900
Medium Trucks:	435.817
Heavy Trucks:	435.661

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	76.79	9.47	-14.21	-1.20	*-4.73*	0.000	0.000
Medium Trucks:	82.53	-2.88	-14.21	-1.20	*-4.76*	0.000	0.000
Heavy Trucks:	85.83	-3.30	-14.21	-1.20	*-4.82*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.2	61.1	69.7	70.4
Medium Trucks:	64.2	62.7	56.4	54.8	63.3	63.5
Heavy Trucks:	67.1	65.7	56.7	57.9	66.3	66.4
Vehicle Noise:	73.0	71.3	67.9	63.5	72.0	72.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.2	61.1	69.7	70.4
Medium Trucks:	64.2	62.7	56.4	54.8	63.3	63.5
Heavy Trucks:	67.1	65.7	56.7	57.9	66.3	66.4
Vehicle Noise:	73.0	71.3	67.9	63.5	72.0	72.4

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
Road Name: SR-210
Lot No: Hotel

Project Name: Alder Av. & SR-210 Commercial
Job Number: 9896
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	233,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	23,340	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	341.0	feet
Centerline Dist. to Observer:	341.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	14.0	feet
Pad Elevation:	1,517.0	feet
Road Elevation:	1,509.0	feet
Barrier Elevation:	1,517.0	feet
Road Grade:	0.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	90.00%
Medium Trucks:	84.8%	4.9%	10.3%	5.24%
Heavy Trucks:	86.5%	2.7%	10.8%	4.76%

Noise Source Elevations (in feet)

Autos:	1,509.000		
Medium Trucks:	1,511.297		
Heavy Trucks:	1,517.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	334.670
Medium Trucks:	334.527
Heavy Trucks:	334.239

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	76.79	9.47	-12.49	-1.20	*-13.10*	0.000	0.000
Medium Trucks:	82.53	-2.88	-12.49	-1.20	*-13.19*	0.000	0.000
Heavy Trucks:	85.83	-3.30	-12.48	-1.20	*-13.42*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.8	71.5	72.1
Medium Trucks:	66.0	64.5	58.1	56.6	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.8	71.5	72.1
Medium Trucks:	66.0	64.5	58.1	56.6	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Third Floor With Wall
Road Name: SR-210
Lot No: Hotel

Project Name: Alder Av. & SR-210 Commercial
Job Number: 9896
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	233,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	23,340	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	341.0	feet
Centerline Dist. to Observer:	341.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	23.0	feet
Pad Elevation:	1,517.0	feet
Road Elevation:	1,509.0	feet
Barrier Elevation:	1,517.0	feet
Road Grade:	0.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	90.00%
Medium Trucks:	84.8%	4.9%	10.3%	5.24%
Heavy Trucks:	86.5%	2.7%	10.8%	4.76%

Noise Source Elevations (in feet)

Autos:	1,509.000		
Medium Trucks:	1,511.297		
Heavy Trucks:	1,517.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	335.382
Medium Trucks:	335.177
Heavy Trucks:	334.737

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	76.79	9.47	-12.50	-1.20	*-21.22*	0.000	0.000
Medium Trucks:	82.53	-2.88	-12.50	-1.20	*-21.37*	0.000	0.000
Heavy Trucks:	85.83	-3.30	-12.49	-1.20	*-21.75*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.8	71.5	72.1
Medium Trucks:	66.0	64.4	58.1	56.5	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.6	70.7	68.9	62.8	71.5	72.1
Medium Trucks:	66.0	64.4	58.1	56.5	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Fourth Floor With Wall
Road Name: SR-210
Lot No: Hotel

Project Name: Alder Av. & SR-210 Commercial
Job Number: 9896
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	233,400	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	23,340	vehicles
Vehicle Speed:	70	mph
Near/Far Lane Distance:	138	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	341.0	feet
Centerline Dist. to Observer:	341.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	32.0	feet
Pad Elevation:	1,517.0	feet
Road Elevation:	1,509.0	feet
Barrier Elevation:	1,517.0	feet
Road Grade:	0.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	90.00%
Medium Trucks:	84.8%	4.9%	10.3%	5.24%
Heavy Trucks:	86.5%	2.7%	10.8%	4.76%

Noise Source Elevations (in feet)

Autos:	1,509.000		
Medium Trucks:	1,511.297		
Heavy Trucks:	1,517.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	336.333
Medium Trucks:	336.068
Heavy Trucks:	335.475

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	76.79	9.47	-12.52	-1.20	*-29.11*	0.000	0.000
Medium Trucks:	82.53	-2.88	-12.52	-1.20	*-29.32*	0.000	0.000
Heavy Trucks:	85.83	-3.30	-12.50	-1.20	*-29.84*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.5	70.6	68.9	62.8	71.4	72.0
Medium Trucks:	65.9	64.4	58.1	56.5	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.5	70.6	68.9	62.8	71.4	72.0
Medium Trucks:	65.9	64.4	58.1	56.5	65.0	65.2
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1
Vehicle Noise:	74.7	73.0	69.6	65.2	73.7	74.1

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Appendix D1:
Traffic Impact Analysis

Prepared by Urban Crossroads, Inc.
March 15, 2016

Commercial Development

TRAFFIC IMPACT ANALYSIS

CITY OF RIALTO

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MARCH 15, 2016 (REVISED)
FEBRUARY 23, 2016

09894-05 Report

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **III**
APPENDICES ..... **V**
LIST OF EXHIBITS ..... **VII**
LIST OF TABLES ..... **IX**
LIST OF ABBREVIATED TERMS ..... **XI**
1 INTRODUCTION **1**
1.1 Project Overview 1
1.2 Analysis Scenarios 3
1.3 Study Area 4
1.4 Analysis Findings 7
1.5 Recommended Improvements 9
1.6 Local and Regional Funding Mechanisms 11
1.7 On-Site Roadway and Site Access Improvements 15
2 METHODOLOGIES **19**
2.1 Level of Service 19
2.2 Intersection Capacity Analysis 19
2.3 Roadway Segment Capacity Analysis Methodology 22
2.4 Freeway Off-Ramp Queuing Analysis 22
2.5 Traffic Signal Warrant Analysis Methodology 23
2.6 Minimum Level of Service (LOS) 24
2.7 Thresholds of Significance 25
2.8 Project Fair Share Calculation Methodology 26
3 AREA CONDITIONS **27**
3.1 Existing Circulation Network 27
3.2 City of Rialto General Plan Circulation Element 27
3.3 Transit Service 40
3.4 Bicycle & Pedestrian Facilities 40
3.5 Existing (2015) Traffic Counts 40
3.6 Existing (2015) Conditions Intersection Operations Analysis 47
3.7 Existing (2015) Conditions Roadway Segment Analysis 47
3.8 Existing (2015) Conditions Traffic Signal Warrants Analysis 52
3.9 Existing (2015) Conditions Off-Ramp Queuing Analysis 52
3.10 Existing (2015) Conditions Basic Freeway Segment Analysis 52
3.11 Existing (2015) Conditions Freeway Merge/Diverge Analysis 57
3.12 Recommended Improvements 57
4 PROJECTED FUTURE TRAFFIC **59**
4.1 Project Trip Generation 59
4.2 Project Trip Distribution 62
4.3 Modal Split 62
4.4 Project Trip Assignment 62
4.5 Background Traffic 62
4.6 Cumulative Development Traffic 65
4.7 Near-Term Conditions 65
5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS **69**

5.1 Roadway Improvements 69
5.2 Existing plus Project Traffic Volume Forecasts 69
5.3 Intersection Operations Analysis 69
5.4 Roadway Segment Analysis 69
5.5 Traffic Signal Warrants Analysis 74
5.6 Off-Ramp Queuing Analysis 74
5.7 Basic Freeway Segment Analysis 74
5.8 Freeway Merge/Diverge Analysis 74
5.9 Recommended Improvements 79

6 EAP (2019) TRAFFIC CONDITIONS 81

6.1 Roadway Improvements 81
6.2 EAP (2019) Traffic Volume Forecasts 81
6.3 Intersection Operations Analysis 81
6.4 Roadway Segment Analysis 81
6.5 Traffic Signal Warrants Analysis 86
6.6 Off-Ramp Queuing Analysis 86
6.7 Basic Freeway Segment Analysis 86
6.8 Freeway Merge/Diverge Analysis 86
6.9 Recommended Improvements 86

7 EAPC (2019) TRAFFIC CONDITIONS 93

7.1 Roadway Improvements 93
7.2 EAPC (2019) Traffic Volume Forecasts 93
7.3 Intersection Operations Analysis 93
7.4 Roadway Segment Analysis 97
7.5 Traffic Signal Warrants Analysis 97
7.6 Off-Ramp Queuing Analysis 97
7.7 Basic Freeway Segment Analysis 97
7.8 Freeway Merge/Diverge Analysis 102
7.9 Recommended Improvements 102

8 REFERENCES 109

APPENDICES

APPENDIX 1.1: APPROVED TRAFFIC STUDY SCOPING AGREEMENT
APPENDIX 1.2: SITE ADJACENT QUEUING ANALYSIS WORKSHEETS
APPENDIX 3.1: EXISTING TRAFFIC COUNTS – OCTOBER 2015
APPENDIX 3.2: EXISTING (2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 3.3: EXISTING (2015) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 3.4: EXISTING (2015) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 3.5: EXISTING (2015) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 3.6: EXISTING (2015) CONDITIONS RAMP JUNCTION MERGE/DIVERGE ANALYSIS WORKSHEETS
APPENDIX 5.1: E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 5.2:
E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 5.3: E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 5.4: E+P BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 5.5: E+P CONDITIONS RAMP JUNCTION MERGE/DIVERGE ANALYSIS WORKSHEETS
APPENDIX 6.1: EAP (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 6.2: EAP (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 6.3:
EAP (2019) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 6.4: EAP (2019) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 6.5: EAP (2019) CONDITIONS RAMP JUNCTION MERGE/DIVERGE ANALYSIS WORKSHEETS
APPENDIX 7.1: EAPC (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 7.2: EAPC (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 7.3:
EAPC (2019) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 7.4: EAPC (2019) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 7.5: EAPC (2019) CONDITIONS RAMP JUNCTION MERGE/DIVERGE ANALYSIS WORKSHEETS
APPENDIX 7.6: EAPC (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 7.7: EAPC (2019) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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LIST OF EXHIBITS

EXHIBIT 1-1: PRELIMINARY SITE PLAN 2
EXHIBIT 1-2: LOCATION MAP 5
EXHIBIT 1-3: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS 17
EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS 28
EXHIBIT 3-2: CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT 29
EXHIBIT 3-3: CITY OF RIALTO GENERAL PLAN ROADWAY CROSS-SECTIONS 30
EXHIBIT 3-4: RENAISSANCE SPECIFIC PLAN CIRCULATION ELEMENT 33
EXHIBIT 3-5: RENAISSANCE SPECIFIC PLAN ROADWAY CROSS-SECTIONS 34
EXHIBIT 3-6: CITY OF FONTANA CIRCULATION MASTER PLAN 37
EXHIBIT 3-7: CITY OF FONTANA GENERAL PLAN ROADWAY CROSS-SECTIONS 38
EXHIBIT 3-8: EXISTING TRANSIT SERVICES 41
EXHIBIT 3-9: CITY OF RIALTO BICYCLE ROUTES 42
EXHIBIT 3-10: RENAISSANCE SPECIFIC PLAN BICYCLE AND PEDESTRIAN CIRCULATION PLAN 43
EXHIBIT 3-11: CITY OF FONTANA GENERAL PLAN BIKEWAYS 44
EXHIBIT 3-12: CITY OF FONTANA GENERAL PLAN TRAILS 45
EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES 46
EXHIBIT 3-14: EXISTING (2015) TRAFFIC VOLUMES 48
EXHIBIT 3-15: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EXISTING (2015) CONDITIONS 49
EXHIBIT 3-16: EXISTING (2015) FREEWAY MAINLINE VOLUMES 56
EXHIBIT 4-1: PROJECT DISTRIBUTION 63
EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES 64
EXHIBIT 4-3: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP 66
EXHIBIT 5-1: E+P TRAFFIC VOLUMES 70
EXHIBIT 5-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR E+P (2015) CONDITIONS 71
EXHIBIT 5-3: E+P FREEWAY MAINLINE VOLUMES 75
EXHIBIT 6-1: EAP (2019) TRAFFIC VOLUMES 82
EXHIBIT 6-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EAP (2019) CONDITIONS 83
EXHIBIT 6-3: EAP (2019) FREEWAY MAINLINE VOLUMES 87
EXHIBIT 7-1: EAPC (2019) TRAFFIC VOLUMES 94
EXHIBIT 7-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EAPC (2019) CONDITIONS 95
EXHIBIT 7-3: EAPC (2019) FREEWAY MAINLINE VOLUMES 98

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LIST OF TABLES

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS 6
TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS 6
TABLE 1-3: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS 7
TABLE 1-4: FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS 7
TABLE 1-5: SUMMARY OF INTERSECTION IMPROVEMENTS BY ANALYSIS SCENARIO 10
TABLE 1-6: SUMMARY OF ROADWAY SEGMENT IMPROVEMENTS 12
TABLE 1-7: PROJECT FAIR SHARE CALCULATIONS 14
TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS 19
TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS 21
TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS 23
TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2015) CONDITIONS 50
TABLE 3-2: EXISTING (205) CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS 51
TABLE 3-3: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EXISTING (2015) CONDITIONS 53
TABLE 3-4: BASIC FREEWAY SEGMENT ANALYSIS FOR EXISTING (2015) CONDITIONS 54
TABLE 3-5: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR EXISTING (2015) CONDITIONS 55
TABLE 3-6: EXISTING ROADWAY CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS WITH IMPROVEMENTS 58
TABLE 4-1: PROJECT TRIP GENERATION RATES 60
TABLE 4-2: PROJECT TRIP GENERATION SUMMARY 61
TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY 67
TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS 72
TABLE 5-2: E+P CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS 73
TABLE 5-3: PEAK HOUR FREEWAY OFF-RAMP QUEUEING SUMMARY FOR E+P CONDITIONS 76
TABLE 5-4: BASIC FREEWAY SEGMENT ANALYSIS FOR E+P CONDITIONS 77
TABLE 5-5: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR E+P CONDITIONS 78
TABLE 5-6: E+P CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS WITH IMPROVEMENTS 80
TABLE 6-1: INTERSECTION ANALYSIS FOR EAP (2019) CONDITIONS 84
TABLE 6-2: EAP (2019) CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS 85
TABLE 6-3: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAP (2019) CONDITIONS 88
TABLE 6-4: BASIC FREEWAY SEGMENT ANALYSIS FOR EAP (2019) CONDITIONS 89
TABLE 6-5: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR EAP (2019) CONDITIONS 90
TABLE 6-6: EAP (2019) CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS WITH IMPROVEMENTS 92
TABLE 7-1: INTERSECTION ANALYSIS FOR EAPC (2019) CONDITIONS 96
TABLE 7-2: EAPC (2019) ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS 99
TABLE 7-3: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EAPC (2019) CONDITIONS . 100
TABLE 7-4: BASIC FREEWAY SEGMENT ANALYSIS FOR EAPC (2019) CONDITIONS 101
TABLE 7-5: FREEWAY RAMP JUNCTION MERGE/DIVERGE FOR EAPC (2019) CONDITIONS 103
TABLE 7-6: INTERSECTION ANALYSIS FOR EAPC (2019) CONDITIONS WITH IMPROVEMENTS 104
TABLE 7-7: EAPC (2019) CONDITIONS ROADWAY SEGMENT VOLUME/CAPACITY ANALYSIS WITH IMPROVEMENTS 105
TABLE 7-8: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR EAPC (2019) CONDITIONS WITH IMPROVEMENTS 107

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CCI	Construction Cost Index
CMP	Congestion Management Program
DIF	Development Impact Fee
EAP	Existing Plus Ambient Growth Plus Project
EAPC	Existing Plus Ambient Growth Plus Project Plus Cumulative
EIR	Environmental Impact Report
E+P	Existing Plus Project
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
PHF	Peak Hour Factor
Project	Commercial Development
RIRO	Right-in/Right-Out
RTP	Regional Transportation Plan
SANBAG	San Bernardino Association of Governments
SCAG	Southern California Association of Governments
SHS	State Highway System
sf	Square Feet
TIA	Traffic Impact Analysis
Vphgph	Vehicles Per Hour Green Per Lane
v/c	Volume to Capacity

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Commercial Development ("Project") located on the southwest corner of Alder Avenue and the SR-210 Freeway in the City of Rialto as shown on Exhibit 1-1. It is our understanding that the proposed Project is located within Planning Area 11 of the *Renaissance Specific Plan.*

The purpose of this traffic impact analysis is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions. As directed by City of Rialto staff, this traffic study has been prepared in accordance with the City of Rialto Traffic Impact Study Guidelines (December 2013), and also where appropriate addresses requirements as identified by the San Bernardino County Congestion Management Program (CMP) *Guidelines for CMP Traffic Impact Analysis Reports* (Appendix C, 2005 Update), the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002), and consultation with City staff during the scoping process. (1) (2) (3) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TIA.

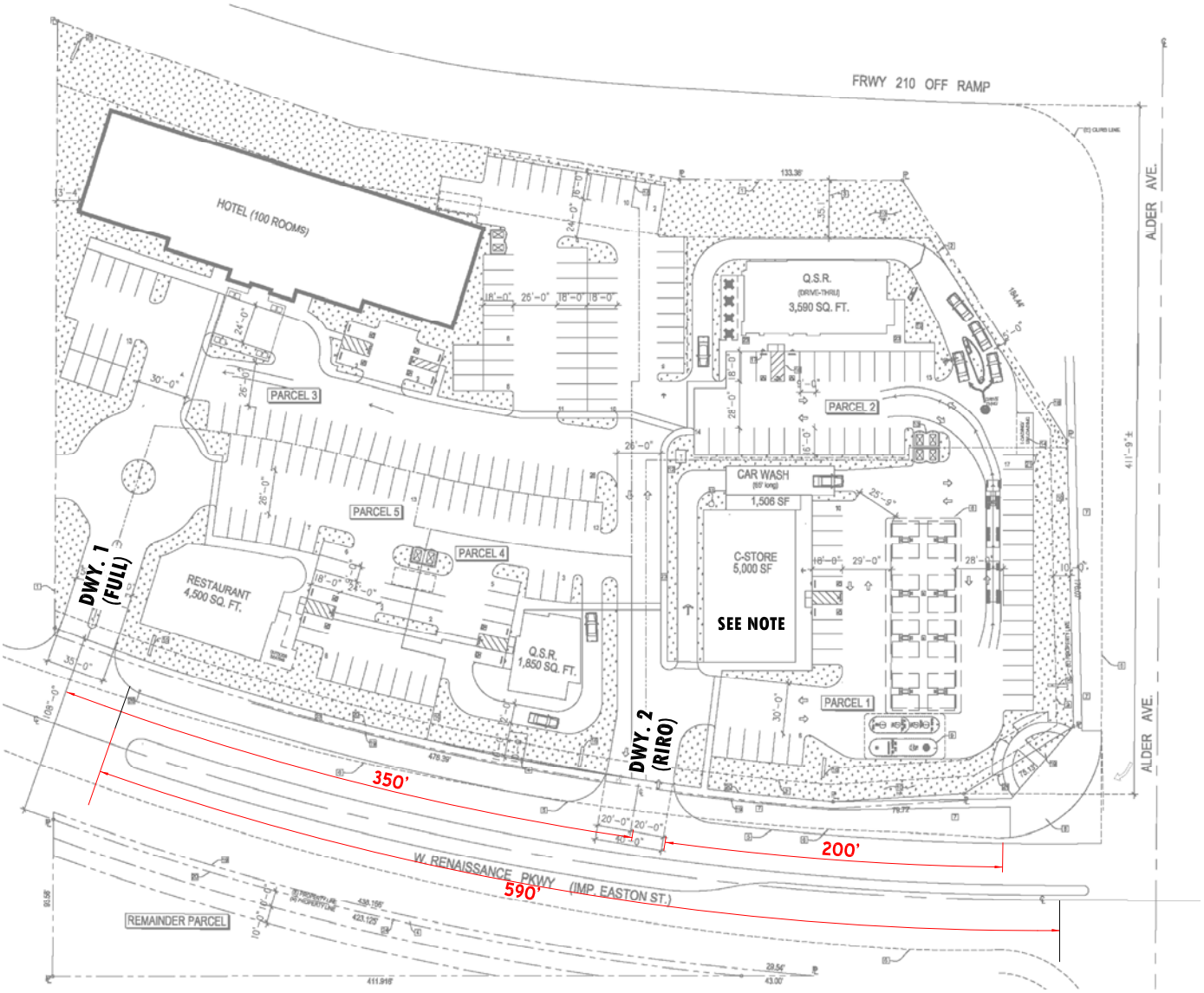
1.1 PROJECT OVERVIEW

The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, a 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, and 5,440 square feet of fast food with drive-through use. For the purposes of this traffic study, the Project is anticipated to be developed in a single phase with an anticipated opening year of 2019.

The Project is proposed to have access on Renaissance Parkway. Driveway 1 is assumed to allow for full-access. Driveways 2 is proposed for right-in/right-out (RIRO) access only. Regional access to the Project site will be provided by the SR-210 Freeway via Alder Avenue.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, 2012. (4) The Project is estimated to generate a net total of 5,262 trip-ends per day on a typical weekday with approximately 432 net AM peak hour trips and 380 net PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



NOTE: INCLUDES 1,000 SF OF FAST FOOD WITHOUT DRIVE THROUGH USE

LEGEND:

FULL = FULL ACCESS
RIRO = RIGHT-IN/RIGHT-OUT ONLY ACCESS

N

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1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2015)
- Existing plus Project (E+P)
- Existing plus Ambient Growth plus Project (EAP) (2019)
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2019)

1.2.1 EXISTING (2015) CONDITIONS

Information for Existing (2015) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The Existing Plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions. The E+P analysis is intended to identify the project-specific traffic impacts associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing (2015) conditions. Pursuant to City of Rialto traffic study guidelines, EAP is used to determine impacts. E+P is provided for informational use only.

1.2.3 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (EAP) CONDITIONS

The EAP (2019) traffic conditions analyses determine potential traffic impacts based on a comparison of the EAP traffic conditions to Existing (2015) conditions. To account for background traffic growth, an ambient growth factor from Existing conditions of 8.24% (2 percent per year over 4 years, compounded annually) has been included for 2019 conditions.

1.2.4 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (EAPC) CONDITIONS

The EAPC (2019) conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 8.24% (2 percent per year over 4 years, compounded annually) has been included for 2019 conditions. This comprehensive list was compiled from information provided by the City of Rialto and City of Fontana staff.

The EAPC (2019) conditions analysis will be utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the City of Rialto Development Impact Fee (DIF) program, or other approved funding mechanism can accommodate the cumulative traffic at the target Level of Service (LOS) identified by the City of Rialto. If the planned and funded improvements can provide the necessary improvements in delay, then the Project's payment into these established fee programs will be considered as long-range cumulative mitigation. Other improvements needed beyond the "funded" improvements

(such as localized improvements to non-funded facilities) are identified as such and would be subject to fair share or as identified by City staff.

The initial estimate of the future EAPC (2019) peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

The currently adopted Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP) (April 2012) growth forecasts for the City of Rialto identifies projected growth in population of 98,900 in 2008 to 125,200 in 2035, or a 26.59 percent increase over the 27-year period. (5) The change in population equates to roughly a 0.88 percent annual growth rate, compounded annually. Similarly, growth over the same 27-year period in households is projected to increase by 38.25 percent, or 1.21 percent annual growth rate. Finally, growth in employment over the same 27-year period is projected to increase by 43.23 percent, or a 1.34 percent annual growth rate.

Based on a comparison of Existing traffic volumes to the EAPC (2019) forecasts, the average growth rate is estimated at approximately 15.15 percent compounded annually between Existing and EAPC (2019) traffic conditions. The annual growth rate at each individual intersection is not lower than 3.03 percent to as high as 23.93 percent, compounded annually, over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Rialto for near term and long range traffic conditions, especially when considered along with the addition of cumulative development project traffic and project-related traffic. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate, as opposed to understate, the potential impacts to traffic and circulation.

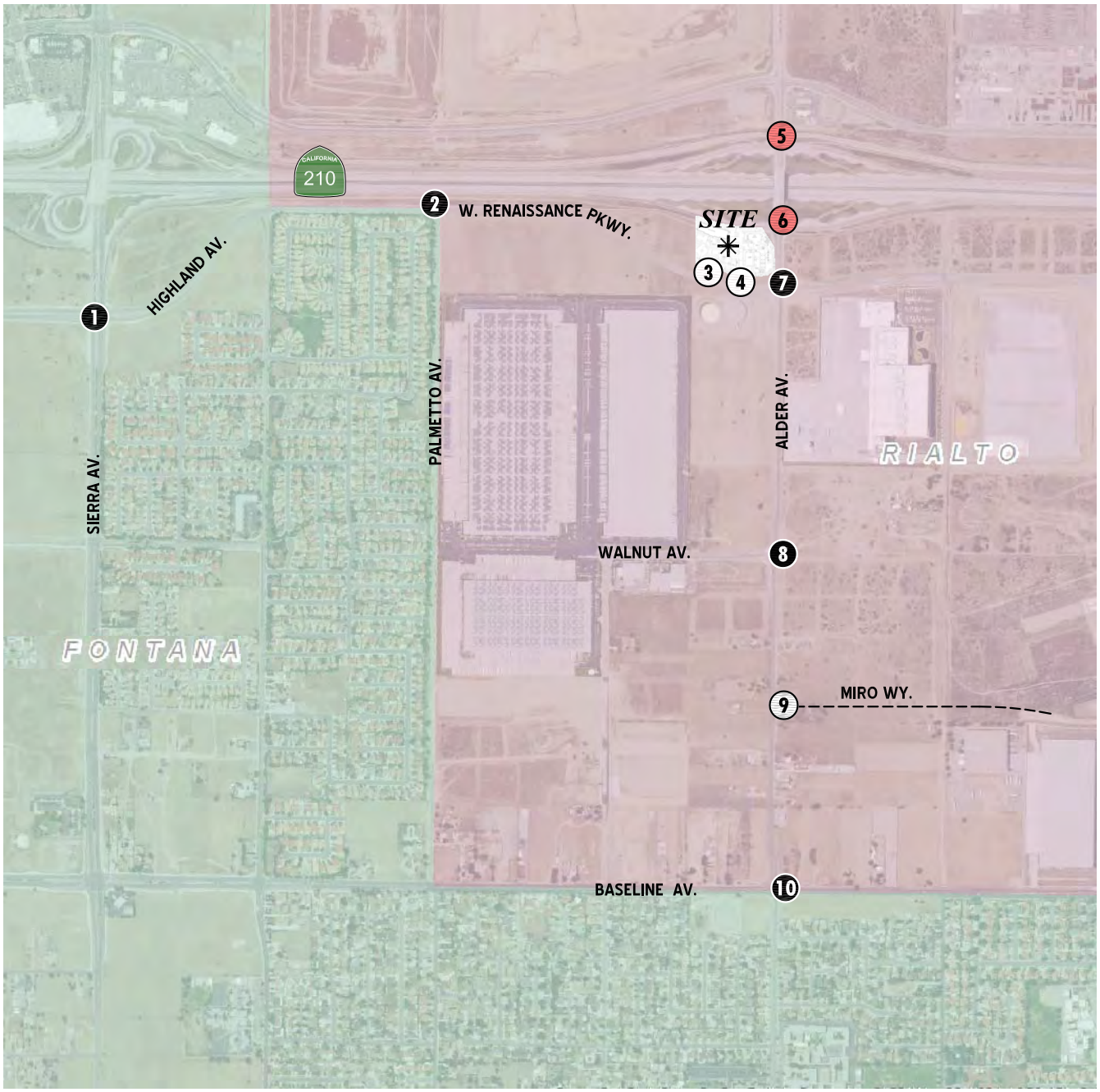
1.3 STUDY AREA

To ensure that this TIA satisfies the City of Rialto's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City is included in Appendix 1.1.

1.3.1 INTERSECTIONS

The following 10 study area intersections listed in Table 1-1 and shown on Exhibit 1-2 were selected for this TIA based on consultation with City of Rialto staff. In general, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- 0 = EXISTING INTERSECTION ANALYSIS LOCATION
- 0 = FUTURE INTERSECTION ANALYSIS LOCATION
- 0 = SANBAG CMP INTERSECTION ANALYSIS LOCATION
- _ _ _ = FUTURE ROAD

N

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URBAN CROSSROADS

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	City of Fontana	No
2	Palmetto Av. / Renaissance Pkwy.	City of Rialto, City of Fontana	No
3	Driveway 1 / Renaissance Pkwy. – Future	City of Rialto	No
4	Driveway 2 / Renaissance Pkwy. – Future	City of Rialto	No
5	Alder Av. / SR-210 Westbound Ramps	Caltrans	Yes
6	Alder Av. / SR-210 Eastbound Ramps	Caltrans	Yes
7	Alder Av. / Renaissance Pkwy.	City of Rialto	No
8	Alder Av. / Walnut Av.	City of Rialto	No
9	Alder Av. / Miro Wy.	City of Rialto	No
10	Alder Av. / Baseline Av.	City of Rialto, City of Fontana	No

The "50 peak hour trip" criterion utilized by the City of Rialto is consistent with the methodology employed by the County of San Bernardino, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential area of impact (i.e., study area).

1.3.2 ROADWAY SEGMENTS

The roadway segment study area utilized for this analysis is based on consultation with City of Rialto staff as shown on Table 1-2. The study area identifies a total of 3 existing roadway segments.

TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Roadway Segment Location	Jurisdiction
1	Renaissance Pkwy. – West of Alder Av.	City of Rialto
2	Alder Av. – North of Renaissance Pkwy.	City of Rialto
3	Alder Av. – South of Renaissance Pkwy.	City of Rialto

1.3.3 FREEWAY MAINLINE SEGMENTS

Study area freeway mainline analysis locations were selected based on Caltrans traffic study guidelines, which may require the analysis of State highway facilities. (3) Consistent with recent Caltrans guidance, and because impacts to freeway segments tend to dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry typically is not required. As such, this study evaluates the following freeway segments adjacent to the point of entry to the SHS, where the Project is anticipated to contribute 50 or more peak hour trips (see Table 1-3):

TABLE 1-3: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	SR-210 Freeway – Westbound, West of Alder Av.
2	SR-210 Freeway – Westbound, East of Alder Av.
3	SR-210 Freeway – Eastbound, West of Alder Av.
4	SR-210 Freeway – Eastbound, East of Alder Av.

1.3.4 FREEWAY MERGE/DIVERGE RAMP JUNCTIONS

The study area freeway merge/diverge ramp junction analysis locations include the following freeway ramp junctions for each direction of flow as shown on Table 1-4, where the Project is anticipated to contribute 50 or more peak hour trips:

TABLE 1-4: FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-210 Freeway – Westbound, On-Ramp at Alder Av. (Merge)
2	SR-210 Freeway – Westbound, Off-Ramp at Alder Av. (Diverge)
3	SR-210 Freeway – Eastbound, On-Ramp at Alder Av. (Merge)
4	SR-210 Freeway – Eastbound, Off-Ramp at Alder Av. (Diverge)

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2015), E+P, EAP (2019), and EAPC (2019).

1.4.1 INTERSECTIONS

Existing (2015) Conditions

There are no study area intersections that operate at an unacceptable LOS during the peak hours under Existing (2015) conditions.

E+P Conditions

There are no study area intersections that are anticipated to operate at an unacceptable LOS during the peak hours under E+P conditions.

EAP (2019) Conditions

The intersection analysis results indicate that the addition of Project traffic is not anticipated to result in any LOS deficiencies under EAP (2019) conditions.

EAPC (2019) Conditions

The intersection analysis results indicate that the following intersections are anticipated to operate at an unacceptable LOS (LOS E or worse) under EAPC (2019) conditions:

ID	Intersection Location
7	Alder Av. / Renaissance Pkwy – LOS F AM peak hour only
8	Alder Av. / Walnut Av. – LOS F AM and PM peak hours
9	Alder Av. / Miro Wy. – LOS E AM and PM peak hours
10	Alder Av. / Baseline Av. – LOS E AM and PM peak hours

1.4.2 ROADWAY SEGMENTS

Existing (2015) Conditions

The roadway segment volume-to-capacity (v/c) analysis results indicate that the following roadway segment is currently operating at an unacceptable LOS (LOS E or worse) under Existing conditions:

ID	Roadway Segment Location	Jurisdiction
3	Alder Av. – South of Renaissance Pkwy.	City of Rialto

E+P Conditions

The addition of Project traffic is not anticipated to result in any additional roadway segment v/c deficiencies, in addition to those previously identified under Existing conditions.

EAP (2019) Conditions

There are no additional roadway segments anticipated to operate at an unacceptable LOS under EAP (2019) conditions, in addition to those previously identified under Existing conditions.

EAPC (2019) Conditions

The following additional roadway segment is anticipated to operate at an unacceptable LOS under EAPC (2019) conditions, in addition to those previously identified under Existing conditions:

ID	Roadway Segment Location	Jurisdiction
4	Alder Av. – North of Renaissance Pkwy.	City of Rialto

1.4.3 FREEWAY MAINLINE AND RAMP JUNCTIONS

Existing (2015) Conditions

The SR-210 Freeway segments analyzed for this study operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing traffic conditions.

The freeway ramp merge and diverge areas are currently operating at LOS D or better.

E+P Conditions

The addition of Project traffic is not anticipated to result in any freeway segment LOS deficiencies.

The addition of Project traffic is not anticipated to result in any freeway ramp merge and diverge junction LOS deficiencies.

EAP (2019) Conditions

The SR-210 Freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for EAP (2019) traffic conditions.

All the SR-210 Freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better) for EAP (2019) traffic conditions.

EAPC (2019) Conditions

The SR-210 Freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for EAPC (2019) traffic conditions, with the exception of the following deficiencies:

ID	Freeway Mainline Segments
1	SR-210 Freeway Westbound, West of Alder Av. – LOS E PM peak hour only
3	SR-210 Freeway Eastbound, West of Alder Av. – LOS E AM and PM peak hours
4	SR-210 Freeway Eastbound, East of Alder Av. – LOS E PM peak hour only

The SR-210 Freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better) for EAPC (2019) traffic conditions, with the exception of the following deficiencies:

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-210 Freeway – Westbound, On-Ramp at Alder Av. – LOS E PM peak hour only
3	SR-210 Freeway – Eastbound, Off-Ramp at Alder Av. – LOS E AM and PM peak hours
4	SR-210 Freeway – Eastbound, On-Ramp at Alder Av. – LOS E PM peak hour only

1.5 RECOMMENDED IMPROVEMENTS

1.5.1 INTERSECTIONS

Table 1-5 lists the recommended intersection improvements necessary to reduce the identified intersection LOS deficiencies by traffic condition. In addition, Table 1-5 also indicates those improvements currently included in either the Renaissance Fee Program, City of Rialto or Regional DIF. In instances where improvement needs are not covered by DIF, the Project's fair share percentage has been calculated.

Table 1-5

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Recommended Improvements[1]				Improvements in Fee Program[1]	Fair Share %[2]
			Existing (2015)	E+P	EAP (2019)	EAPC (2019)		
7	Alder Av. / Renaissance Pkwy.	Rialto	None	None	None	Restripe SB right turn lane to shared through-right turn lane	Yes	--
8	Alder Av. / Walnut Av.	Rialto	None	None	None	Restripe SB approach to provide for a left turn lane and a shared through-right turn lane	Yes	--
9	Alder Av. / Miro Wy.	Rialto	None	None	None	Traffic signal SB left turn lane	No[2] No[3]	11.5%
10	Alder Av. / Baseline Av.	Rialto	None	None	None	2nd WB through lane	Yes	--

[1] Program improvements constructed by Project may be eligible for fee credit. In lieu fee payment is at discretion of City. Represents the fair share percentage for the Project during the most impacted peak hour.

[2] Two previously approved projects have already been conditioned to contribute to the future signalization of this intersection on a fair-share basis. The Project will also contribute on a fair-share basis to this recommended improvement.

[3] Improvement of Miro Way is anticipated to be constructed by a cumulative development as part of their project's site access.

1.5.2 ROADWAY SEGMENTS

Table 1-6 lists the recommended roadway improvements consistent with the identified intersection improvements shown previously in Table 1-5, by traffic condition. In addition, Table 1-6 also indicates those improvements currently included in either the Renaissance Fee Program, City of Rialto or Regional DIF or TUMF fee programs. In instances where improvement needs are not covered by DIF, the Project's fair share percentage has been calculated.

Alder Avenue is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration, including full sidewalk, curb, gutter, and landscaping, is a $4.9 million project included in the City-wide DIF. DIF fees are being collected incrementally as development in the area is approved.

1.5.3 FREEWAY SEGMENTS

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Rialto (or other neighboring jurisdictions) on SHS roadway segments. As such, no improvements have been recommended to address the EAPC cumulative deficiencies on the SHS.

1.6 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Rialto are funded through a combination of direct project mitigation, development impact fee programs or fair share contributions, such as the City of Rialto Development Impact Fee (DIF) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

1.6.1 MEASURE "I" FUNDS

In 2004, the voters of San Bernardino County approved the 30-year extension of Measure "I", a one-half of one percent sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure "I" extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by San Bernardino Association of Governments (SANBAG) and concluded that each jurisdiction should include a regional fee component in their local programs in order to meet the Measure "I" requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction and was most recently updated in November 2013. Revenues collected through these programs are used in tandem with Measure "I" funds to deliver projects identified in the Nexus Study.

While Measure "I" is a self-executing sales tax administered by SANBAG, it bears discussion here because the funds raised through Measure "I" have funded in the past and will continue to fund new transportation facilities in San Bernardino County, including within the City of Rialto.

Table 1-6

Summary of Roadway Segment Improvements

#	Roadway	Segment Limits	Jurisdiction	Analysis Scenarios				Improvements included in City or Regional DIF?[1]
				Existing (2015)	E+P	EAP (2019)	EAPC (2019	
2	Alder Av.	North of Renaissance Pkwy.	Rialto	None	None	None	Improved to a 5 lane divided facility	No
3		South of Renaissance Pkwy.	Rialto	Improved to a 4 lane divided facility	Same	Same	Same	Yes

[1] All recommended improvements are consistent with the General Plan designations of the respective jurisdictions in which they are located.

1.6.2 CITY OF RIALTO DEVELOPMENT IMPACT FEE (DIF) PROGRAM

In 2006, the City of Rialto adopted their Development Impact Fee (DIF) program incorporating the regional component of Measure I. The fee schedule was updated in November 2009. Fees from new residential, commercial and industrial development are collected to fund Measure I compliant regional facilities. Under the City's DIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

After the City's DIF fees are collected, they are placed in a separate interest bearing account pursuant to the requirements of Government Code sections 66000 *et seq*. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of the improvements listed in its facilities list.

1.6.3 RIALTO RENAISSANCE FEE PROGRAM

The Renaissance Specific Plan fee program addresses fair-share costs associated with development within the Renaissance Specific Plan area. (6) The purpose of the proposed Renaissance Traffic Fee Program is to fund fair-share costs associated with improvements identified in the Environmental Impact Report (EIR)/TIA at build-out of the proposed Renaissance Specific Plan and to allocate those costs to development within the Renaissance Specific Plan area. The Renaissance Traffic Fee Program will be assessed to defray costs of transportation improvements at intersections that are not included in the SANBAG Nexus Study, but would require improvements due to background growth and new development within the Renaissance Specific Plan. This fee does not include frontage improvements and/or street segments within the Specific Plan, which will be the individual responsibility of individual development projects. The fees will be applicable to all development within the Renaissance Specific Plan area.

The Renaissance Traffic Fee Program would fund improvements at intersections analyzed as part of the Renaissance EIR for which improvements are not included in the SANBAG Nexus Study, or in Nexus Studies conducted by other jurisdictions. Thirty improvements are included in the Renaissance Traffic Fee Program.

1.6.4 FAIR SHARE CONTRIBUTION

The Project's mitigation will include fee payments to the City of Rialto DIF and construction of specific improvements to facilitate site access. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion).

Table 1-7

Project Fair Share Calculations

#	Intersection	Existing	Project	EAPC (2019)	Project Fair Share[1]
9	Alder Av. / Miro Wy.				
	AM:	1,287	112	2,263	11.5%
	PM:	1,284	99	2,194	**10.9%**

* Highest deficient peak hour represented in **BOLD** and shown on Table 1-5.

[2] Fair share based on ratio of Project traffic to net new traffic, where new traffic is the total future traffic less existing baseline traffic.

All off-site intersections and roadways evaluated in this study are included as part of the City's General Plan roadway network, and are therefore, assumed to be covered by one of the City's traffic fee programs. In the event a particular facility is not included in a fee program, fair share calculations have been provided on Table 1-7. The fair-share calculations, presented on Table 1-7, indicate that the Project contributes 10.9% and 11.5% of the overall delay to these intersections.

1.7 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

This section summarizes Project site access and on-site circulation recommendations.

The Project is proposed to have access on Renaissance Parkway. Driveway 1 is assumed to allow for full-access. Driveway 2 is proposed for right-in/right-out access only. Regional access to the Project site will be provided by the SR-210 Freeway via Alder Avenue. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements are required to be in place prior to occupancy.

1.7.1 SITE ADJACENT ROADWAY AND SITE ACCESS IMPROVEMENTS

The recommended site-adjacent roadway improvements for the Project are described below. These improvements need to be incorporated into the project description prior to Project approval or imposed as conditions of approval as part of the Project approval. Exhibit 1-3 illustrates the site-adjacent roadway improvement recommendations.

Exhibit 1-3 also illustrates the on-site and site adjacent recommended roadway lane improvements. Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

Renaissance Parkway – Renaissance Parkway is an east-west oriented roadway located along the Projects' southern boundary. Construct Renaissance Parkway from the Project's western boundary to Alder Avenue to its ultimate half-section width as a Major Arterial (108-foot right-of-way) in compliance with applicable Renaissance Specific Plan and City of Rialto standards.

Alder Avenue – Alder Avenue is a north-south oriented roadway located along the Project's eastern boundary. Construct Alder Avenue from the SR-210 Freeway Eastbound Ramps to Renaissance Parkway to its ultimate half-section width as a Major Arterial (100-foot right-of-way) in compliance with applicable Renaissance Specific Plan and City of Rialto standards.

Driveway 1 / Renaissance Parkway – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: One shared left-right turn lane.
- Eastbound Approach: One left turn lane with 200 feet of storage to accommodate 95th percentile queues and two through lanes.

- Westbound Approach: One through lane and one shared through-right turn lane.

Driveway 2 / Renaissance Parkway – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: One right turn lane.
- Eastbound Approach: Two through lanes.
- Westbound Approach: One through lane and one shared through-right turn lane.

Alder Avenue / Renaissance Parkway – Maintain existing traffic signal and modify the intersection with the following geometrics:

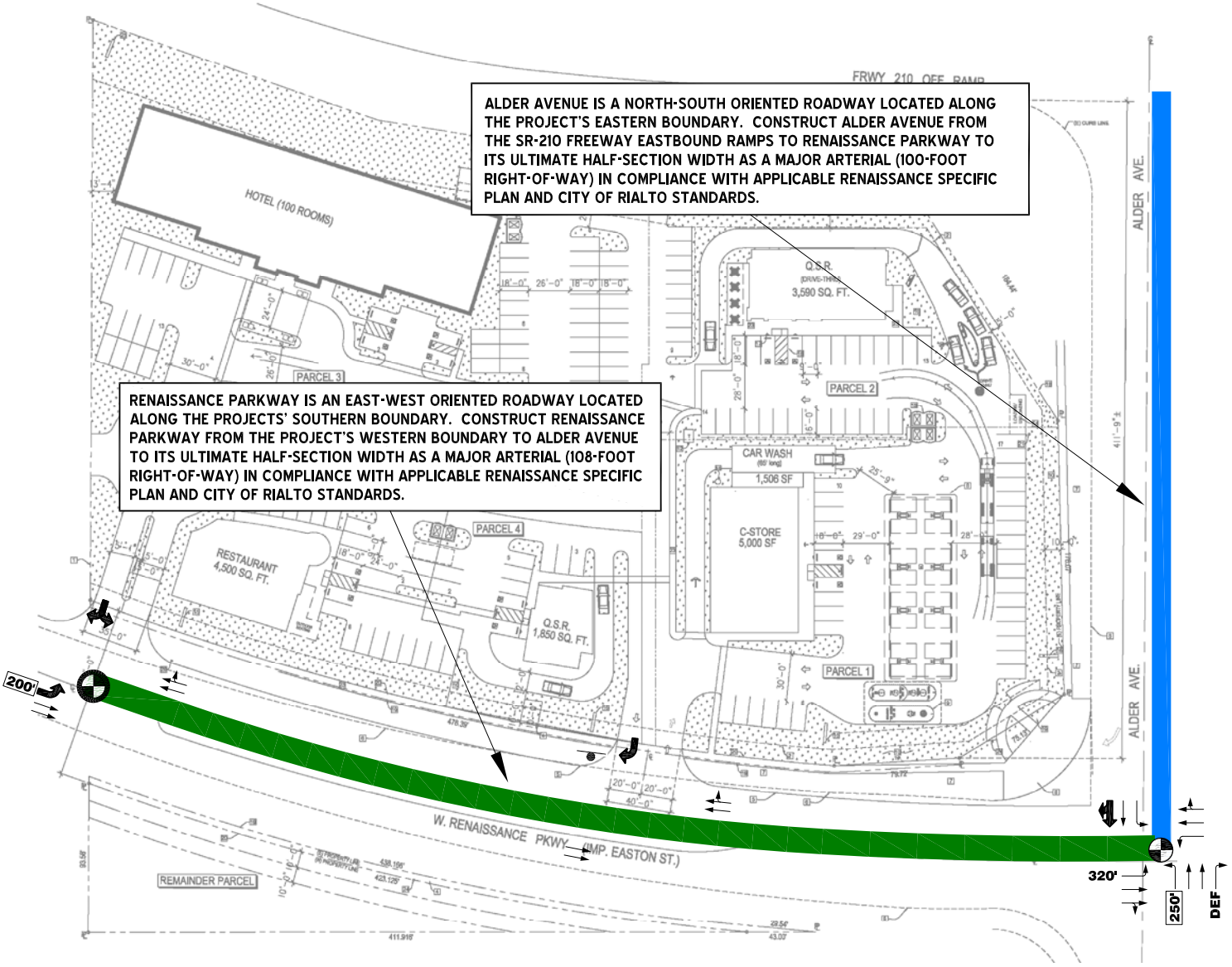
- Northbound Approach: One left turn lane with 250 feet of storage to accommodate 95th percentile queues, two through lanes, and one defacto-right turn lane.
- Southbound Approach: One left turn lane, one through lane, and restripe right turn lane to a shared through-right turn at such time in the future when the roadway is widened to the south of the intersection.
- Eastbound Approach: One left turn lane with existing 320 feet of storage to accommodate 95th percentile queues, one through lane, and one shared through-right turn lane.
- Westbound Approach: One left turn lane, one through lane, and one shared through-right turn lane.

Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Rialto General Plan Circulation Element.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Rialto sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

EXHIBIT 1-3: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS



ON-SITE TRAFFIC SIGNING AND STRIPING SHOULD BE IMPLEMENTED IN CONJUNCTION WITH DETAILED CONSTRUCTION PLANS FOR THE PROJECT SITE.

SIGHT DISTANCE AT EACH PROJECT ACCESS POINT SHOULD BE REVIEWED WITH RESPECT TO STANDARD CALTRANS AND CITY OF RIALTO SIGHT DISTANCE STANDARDS AT THE TIME OF PREPARATION OF FINAL GRADING, LANDSCAPE, AND STREET IMPROVEMENT PLANS.

LEGEND:

- = EXISTING TRAFFIC SIGNAL
- = TRAFFIC SIGNAL IMPROVEMENT
- = STOP SIGN IMPROVEMENT
- = EXISTING LANE
- = LANE IMPROVEMENT
- 320' = EXISTING LEFT TURN POCKET
- 250' = LEFT TURN POCKET IMPROVEMENT
- = MAJOR ARTERIAL (100' R.O.W.)
- = MAJOR ARTERIAL (108' R.O.W.)

N

1.7.2 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted along the site adjacent roadway of Renaissance Parkway. EAPC (2019) traffic conditions to determine the turn pocket lengths necessary to accommodate long-range 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The results have been provided in Appendix 1.2.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). However, the average queue is the average of all the two-minute maximum queues observed by SimTraffic. The maximum back of queue observed for every two-minute period is recorded by SimTraffic.

SimTraffic has been utilized to assess peak hour queuing at the site access driveways for Horizon Year With Project traffic conditions. The random simulations generated by SimTraffic have been utilized to determine the 50th and 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded five (5) times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been utilized for purposes of determining the necessary turn pocket storage lengths, the 50th percentile queues are also reported and can be found in Appendix 1.2. The 50th percentile queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle (or 5% of the time). The 50th percentile, or average, queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations. However, many jurisdictions utilize the 95th percentile queues for design purposes.

The storage length recommendations for the turning movement at the Project was shown previously on Exhibits 1-3.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with City of Rialto traffic study guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (7) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Rialto requires signalized intersection operations analysis based on the methodology described in the (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Study area intersections have been evaluated using the Synchro (Version 9 Build 904) analysis software package.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Source: HCM

Consistent with Exhibit C of the *City of Rialto Traffic Impact Analysis Report Guidelines*, the following saturation flow rates, in vehicles per hour green per lane (vphgpl), will be utilized in the traffic analysis for signalized intersections:

Existing and Near-Term Traffic Conditions:

- Exclusive through: 1900 vphgpl
- Exclusive left: 1800 vphgpl
- Exclusive dual left: 1700 vphgpl
- Exclusive right: 1900 vphgpl
- Exclusive dual right: 1800 vphgpl
- Exclusive triple left: 1600 vphgpl or less

Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with

capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (7)

California Department of Transportation (Caltrans)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 9 Build 904) has been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. SR-210 Freeway at Alder Avenue). (3) Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the Chapter 16 of the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. Signal timing for the freeway arterial-to-ramp intersections have been obtained from Caltrans District 8 and were utilized for the purposes of this analysis.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Rialto requires the operations of unsignalized intersections be evaluated using the methodology described the HCM. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS METHODOLOGY

Roadway segment operations have been evaluated using the applicable average daily traffic (ADT) roadway capacity values provided in Exhibit D of the *City of Rialto Traffic Impact Analysis Report Guidelines.*

The roadway capacities utilized for the purposes of this analysis are considered "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

The study area for this TIA includes the freeway-to-arterial interchanges of the SR-210 Freeway at Alder Avenue off-ramps. Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing impacts at the freeway ramp intersections on Alder Avenue. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the SR-210 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential impacts/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group.

There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. In many cases, the 95th percentile queue will not be experienced and may potentially be less than the 50th percentile queue due to upstream metering. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle (or 5% of the

time). The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.5 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. (8)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (8) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future unsignalized intersections, that currently do not exist, have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

As shown on Table 2-3, traffic signal warrant analyses were performed for the following unsignalized study area intersections during the peak weekday conditions wherein the Project is anticipated to contribute the highest trips:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
2	Palmetto Av. / Renaissance Pkwy.	City of Rialto, City of Fontana
9	Alder Av. / Miro Wy.	City of Rialto

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *Existing Plus Project Traffic Analysis,* Section 6 *EAP (2019) Traffic Analysis,* and Section 7 *EAPC (2019) Traffic Analysis.*

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.6 MINIMUM LEVEL OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.6.1 CITY OF RIALTO

The City of Rialto 2010 General Plan Update has established minimum LOS standards. Specifically, General Plan Policies 4-1.20 and 4-1.21 establish the minimum standards to be applied to any TIA, as follows:

- Policy 4-1.20: Design City streets so that signalized intersections operate at Level of Service (LOS) D or better during the morning and evening peak hours, and require new development to mitigate traffic impacts that degrade LOS below that level.
- Policy 4-1.21: Design City streets so that unsignalized intersections operate with no vehicular movement having an average delay greater than 120 seconds during the morning and evening peak hours, and require new development to mitigate traffic impacts that increase delay above that level.

2.6.2 CITY OF FONTANA

The City of Fontana has set the goal for acceptable LOS as LOS C or better, for study area intersections (see Goal #1, Policy #12 of the City of Fontana General Plan Circulation Element). Achieving the LOS C target is considered a notable burden and is beyond feasibility as the study area consists of roadways that have been constructed and managed since the adoption of the current General Plan. Maintaining the LOS C threshold within a built environment would require extensive roadway widening that could affect existing uses, property rights and substantial costs associated with implementing these improvements. The City of Fontana Circulation Element also recognizes that LOS D is typically considered the worst acceptable level in urbanized areas of the City. In an effort to be consistent with the City's Circulation Element, LOS D has been utilized for the study area intersections.

2.6.3 CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better, except where an existing LOS F condition is identified in the CMP document.

2.6.3 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway Facilities (SHS) facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. Consistent with the City of Rialto LOS threshold, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions (see approved Caltrans scope included in Appendix 1.1.

2.7 THRESHOLDS OF SIGNIFICANCE

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

2.7.1 INTERSECTIONS

Consistent with the City's traffic study guidelines, new development is required to mitigate traffic impacts exceeding these levels. Significant impacts are deemed to occur at any intersection in which the Project causes the LOS to fall below LOS D or the peak hour delay to increase as follows:

- LOS A/B = By 10.0 seconds
- LOS C = By 8.0 seconds
- LOS D = By 5.0 seconds
- LOS E = By 2.0 seconds
- LOS F = By 1.0 seconds

The proposed significance thresholds will be applied at study area intersections for the purposes of determining project-related impacts.

2.7.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition by contributing 50 or more peak hour trips. A segment that is operating at or near capacity is deemed to be deficient.

2.8 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TIA identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified.

Consistent with the City's traffic study guidelines, the Project's fair share cost of improvements would be determined based on the following equation:

Project Fair Share % = Project Traffic / (Net New Traffic = Future Traffic – Existing Traffic)

The Project fair share contribution calculations are presented previously in Section 1.6 *Local and Regional Funding Mechanisms* of this TIA.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Rialto and City of Fontana General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment capacity, freeway mainline operations, and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Rialto staff (Appendix 1.1), the study area includes a total of 10 existing and future intersections as shown previously on Exhibit 1-2 where the Project is anticipated to contribute 50 or more peak hour trips. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

As previously noted, the Project site is located within Planning Area 11 of the *Renaissance Specific Plan* in the City of Rialto. Exhibit 3-2 shows the City of Rialto General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Rialto General Plan roadway cross-sections. Exhibit 3-4 shows the Renaissance Specific Plan Vehicular Circulation Plan, and Exhibit 3-5 illustrates the Renaissance Specific Plan roadway cross-sections. Exhibit 3-6 shows the City of Fontana Circulation Master Plan, and Exhibit 3-7 illustrates the City of Fontana General Plan roadway cross-sections.

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the *Renaissance Specific Plan* in the vicinity of the proposed Project as identified on the Renaissance Specific Plan Circulation Element are described subsequently.

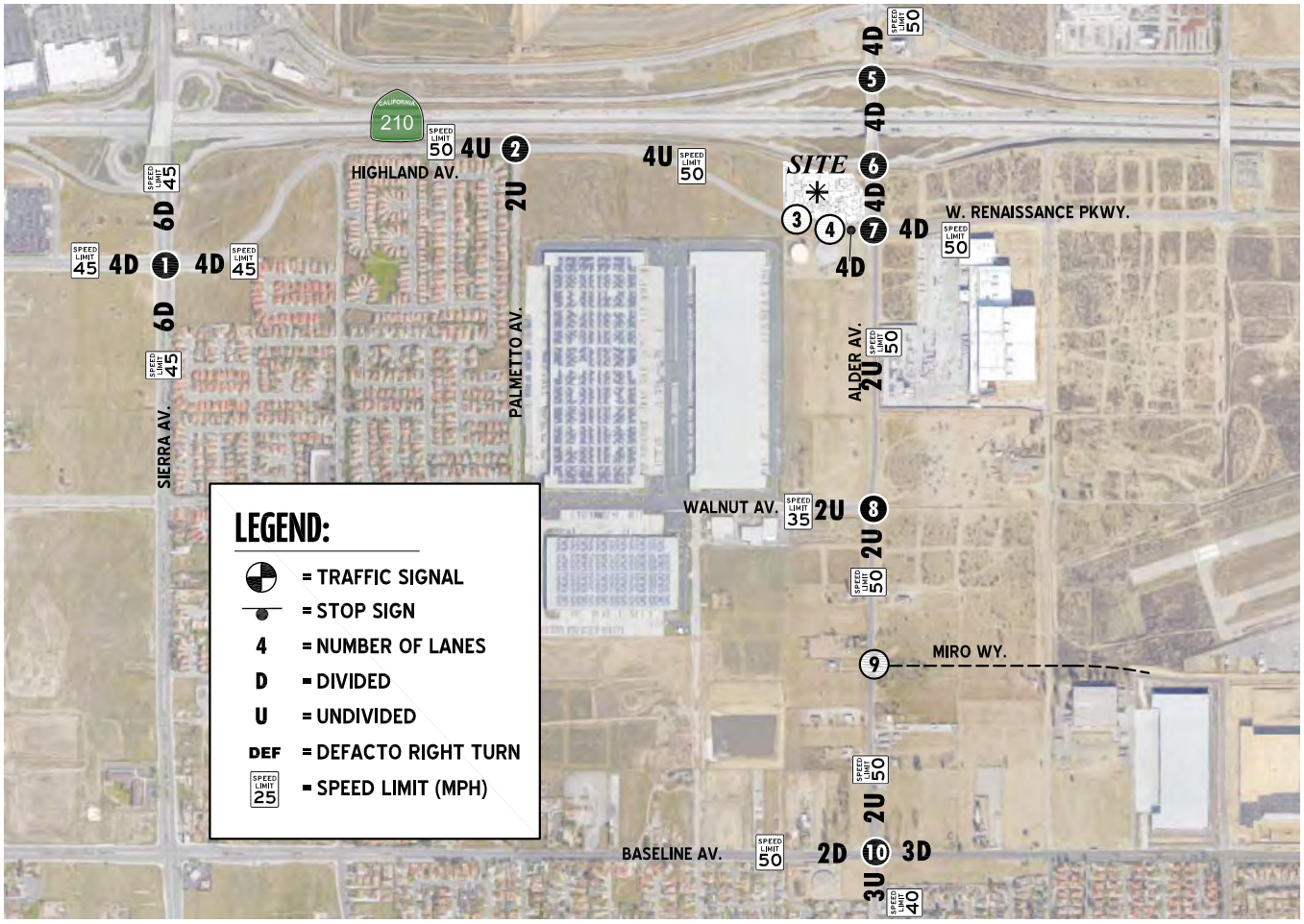
Major Arterials can accommodate four travel lanes and may have raised medians. These facilities are intended to carry large volumes of relatively high-speed traffic between the region, different parts of the City, and Renaissance. Examples of Major Arterials within the study area include:

- Renaissance Parkway
- Alder Avenue
- Baseline Avenue

Secondary Arterials are smaller than Major Arterials but are extremely important in creating a backbone circulation system. They serve as primary roadways within Renaissance, carrying a majority of traffic into and throughout the site. An example of a Secondary Arterial within the study area includes:

- Miro Way

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



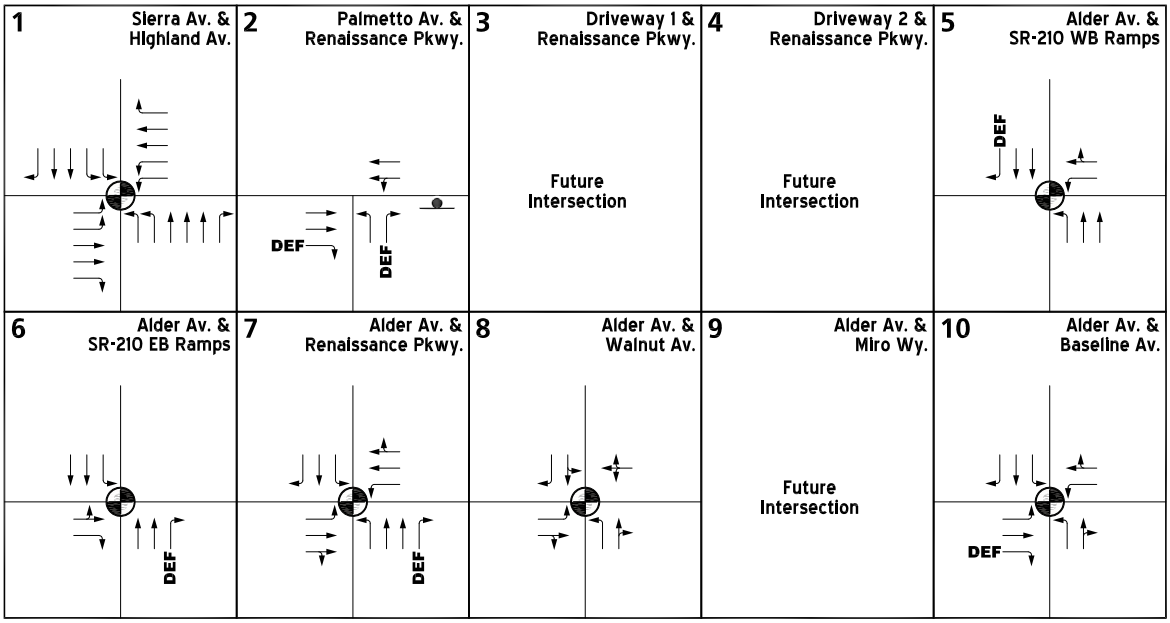
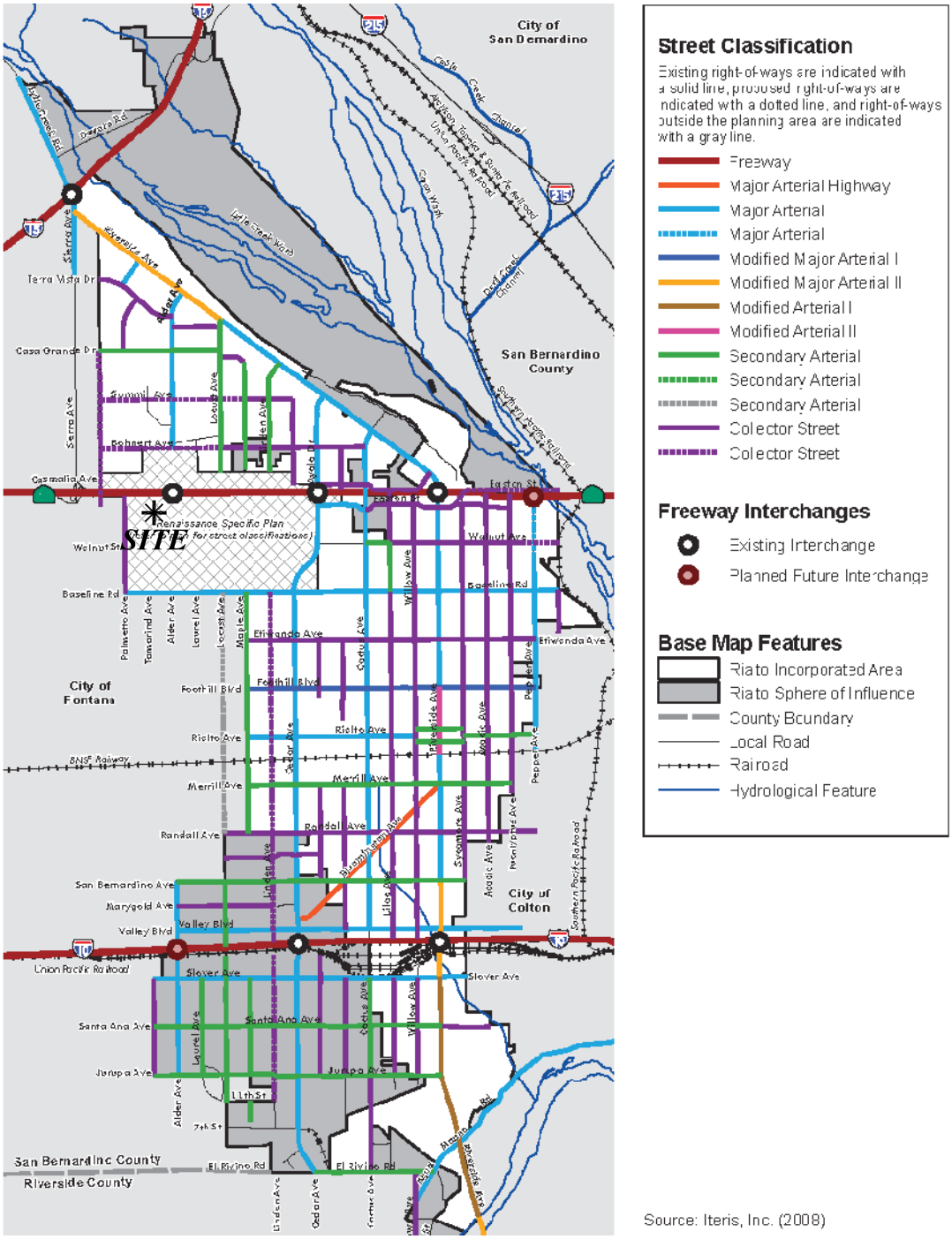
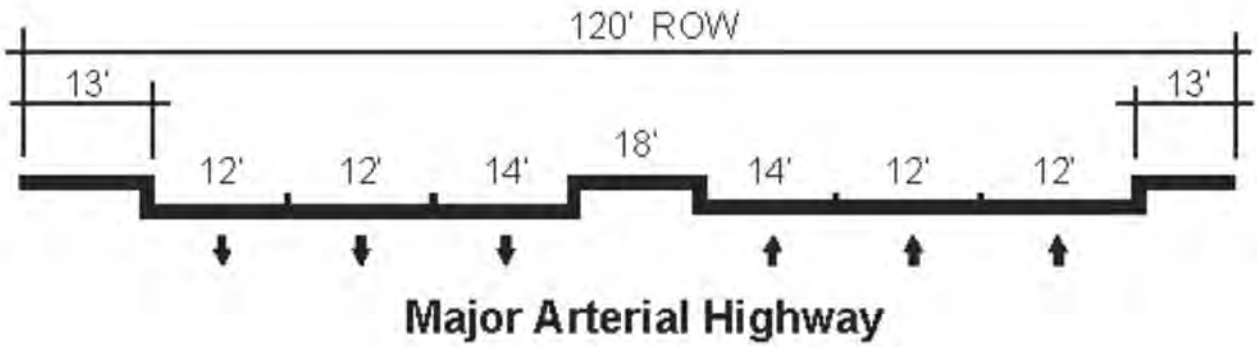


EXHIBIT 3-2: CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

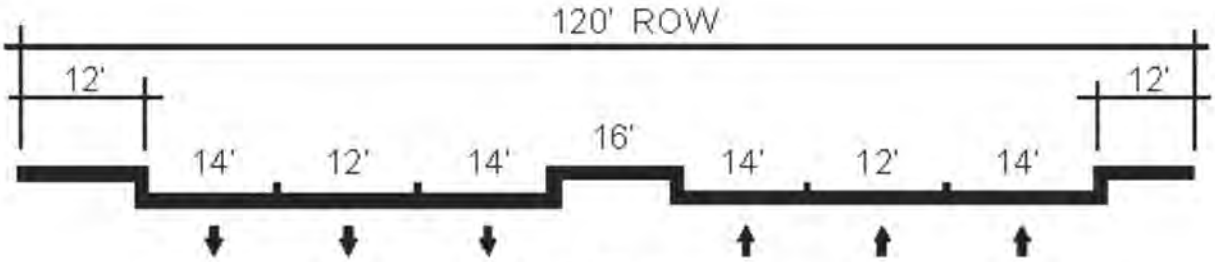


Source: Iteris, Inc. (2008)

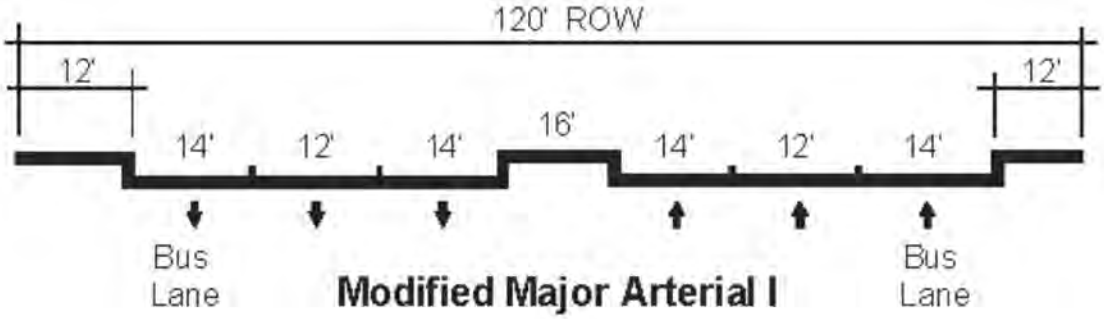
EXHIBIT 3-3 (1OF3): CITY OF RIALTO GENERAL PLAN ROADWAY CROSS-SECTIONS



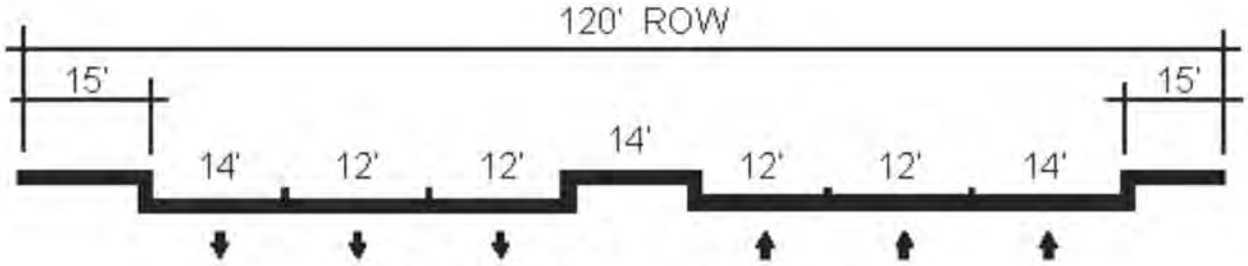
Major Arterial Highway



Major Arterial

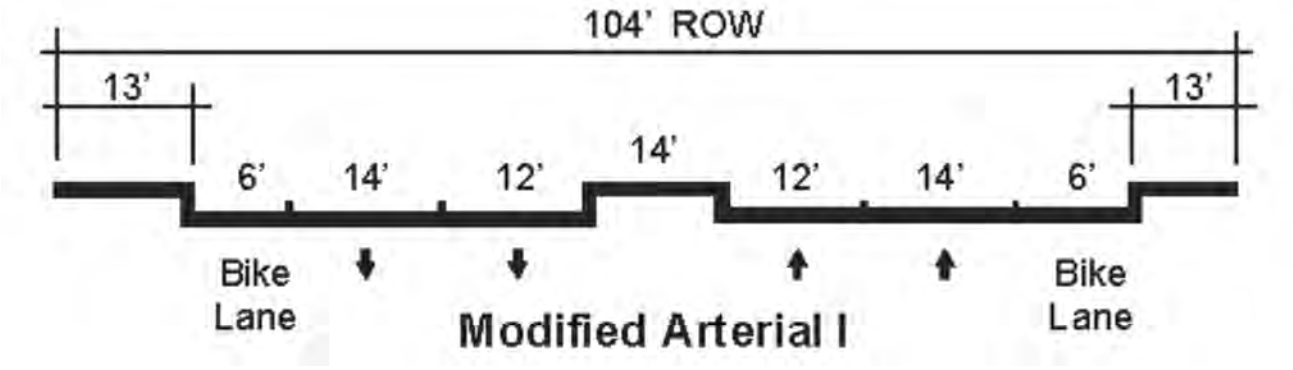


Modified Major Arterial I

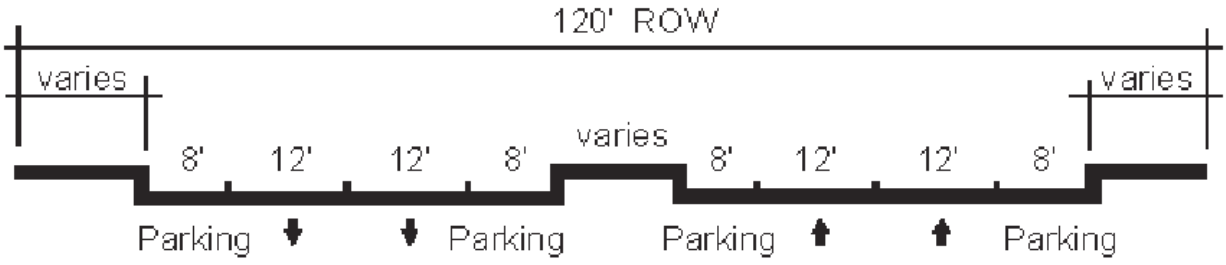


Modified Major Arterial II

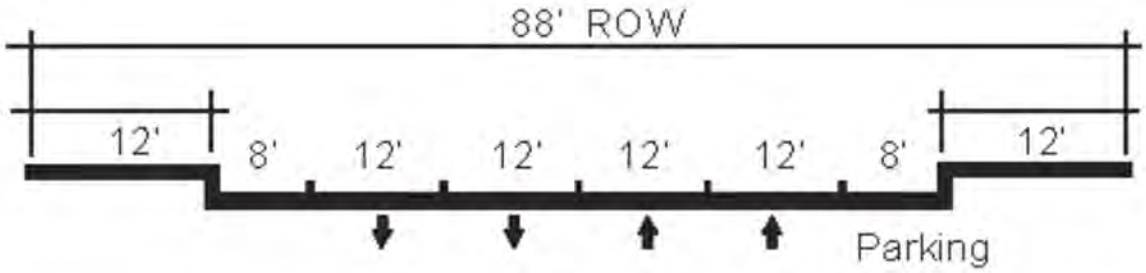
EXHIBIT 3-3 (2OF3): CITY OF RIALTO GENERAL PLAN ROADWAY CROSS-SECTIONS



Modified Arterial I



Modified Arterial II



Secondary Arterial

EXHIBIT 3-3 (3OF3): CITY OF RIALTO GENERAL PLAN ROADWAY CROSS-SECTIONS

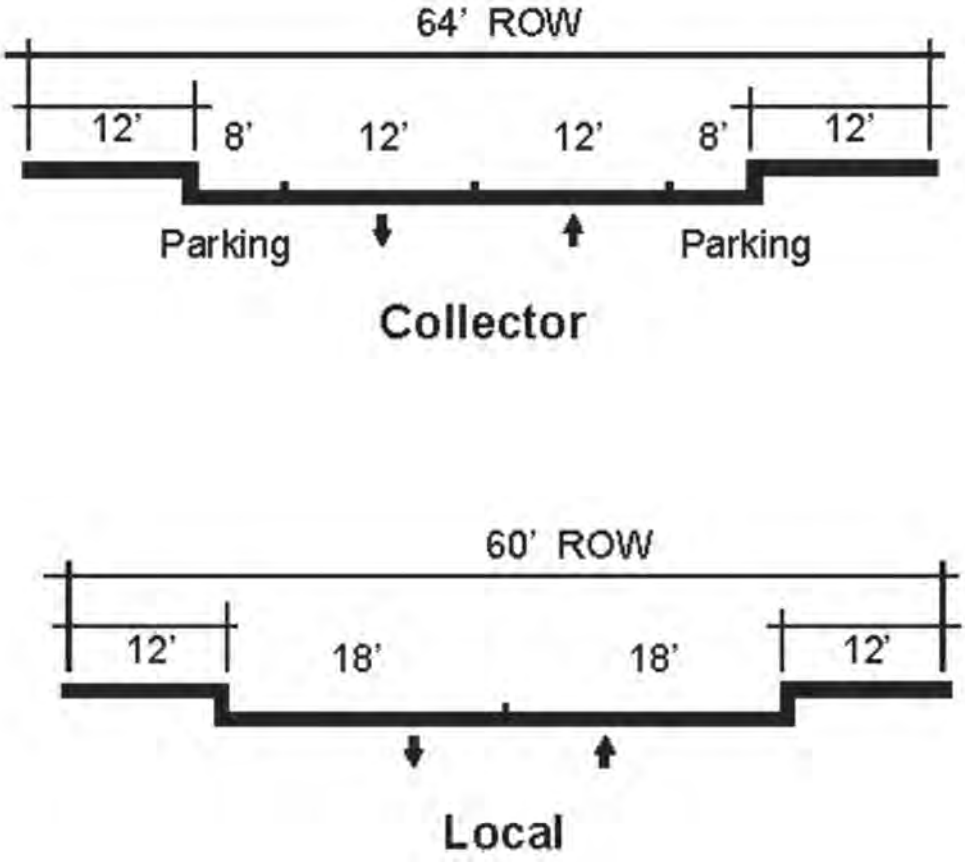


EXHIBIT 3-4: RENAISSANCE SPECIFIC PLAN CIRCULATION ELEMENT

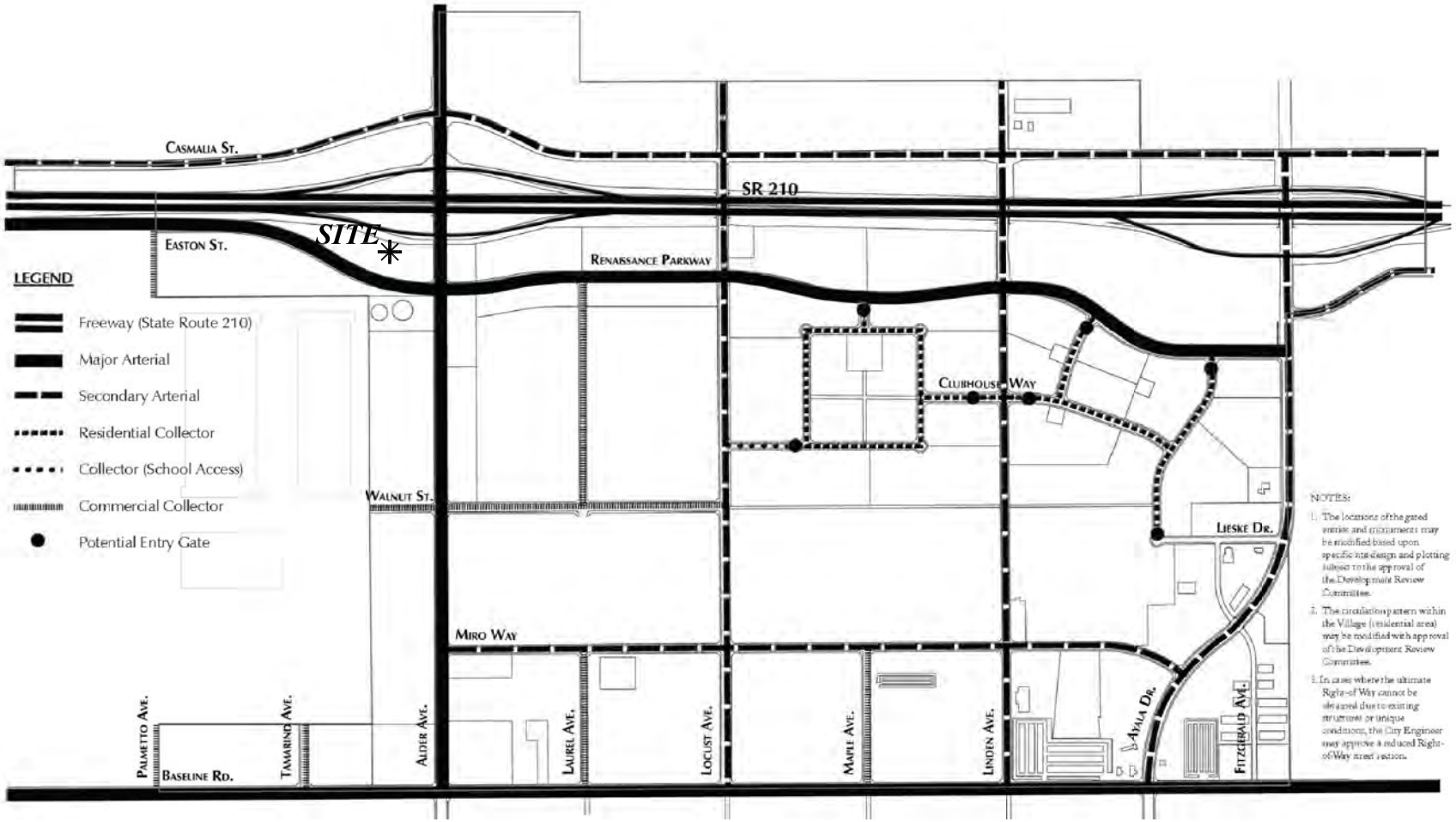
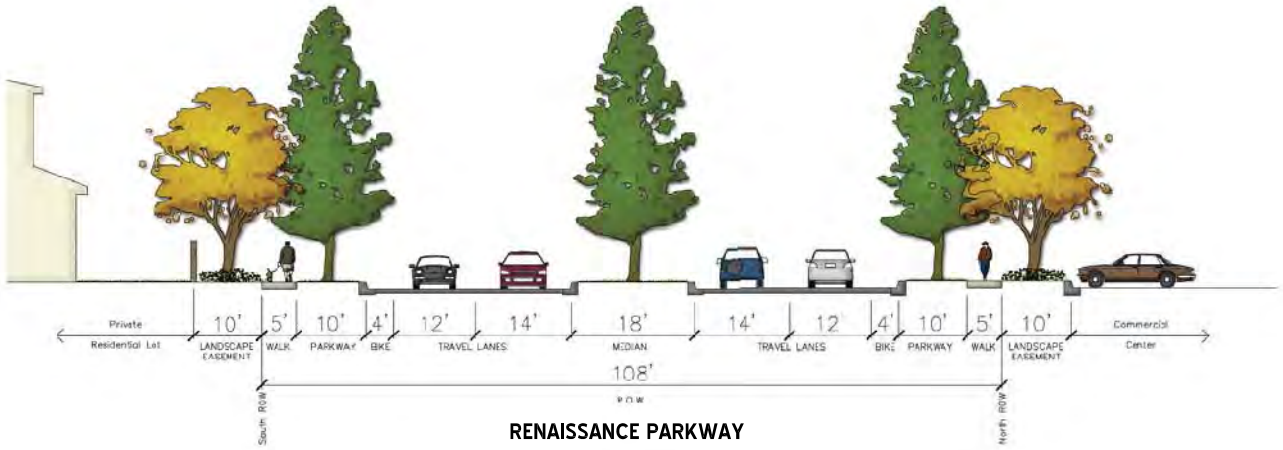
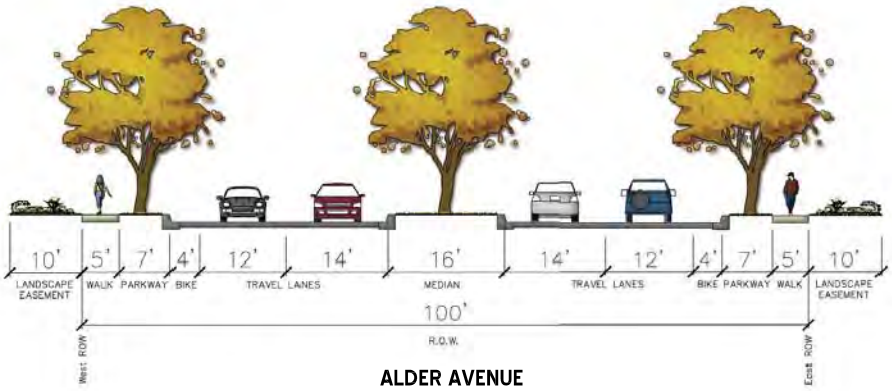


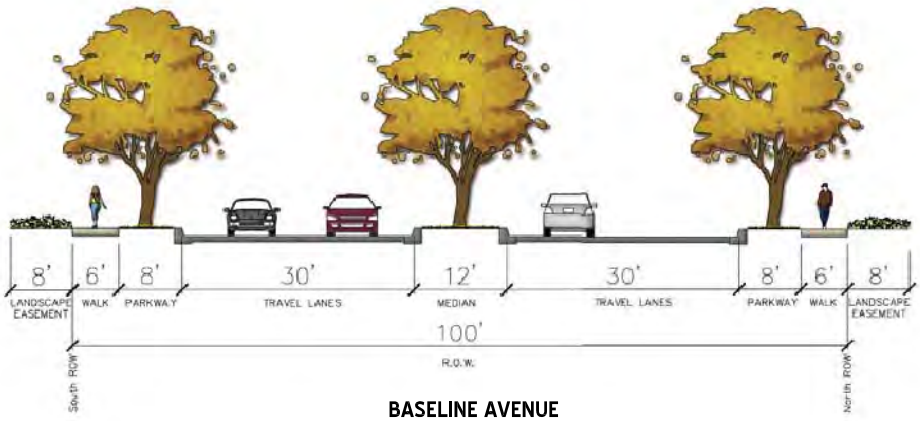
EXHIBIT 3-5 (1OF3): RENAISSANCE SPECIFIC PLAN ROADWAY CROSS-SECTIONS



RENAISSANCE PARKWAY

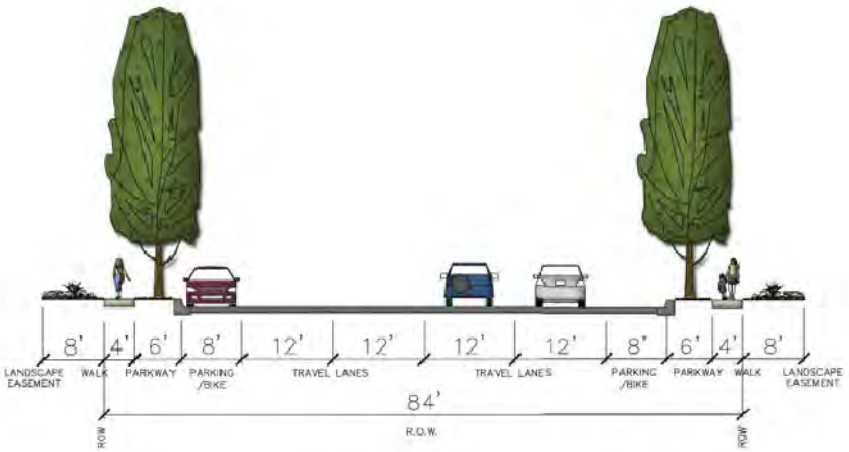


ALDER AVENUE



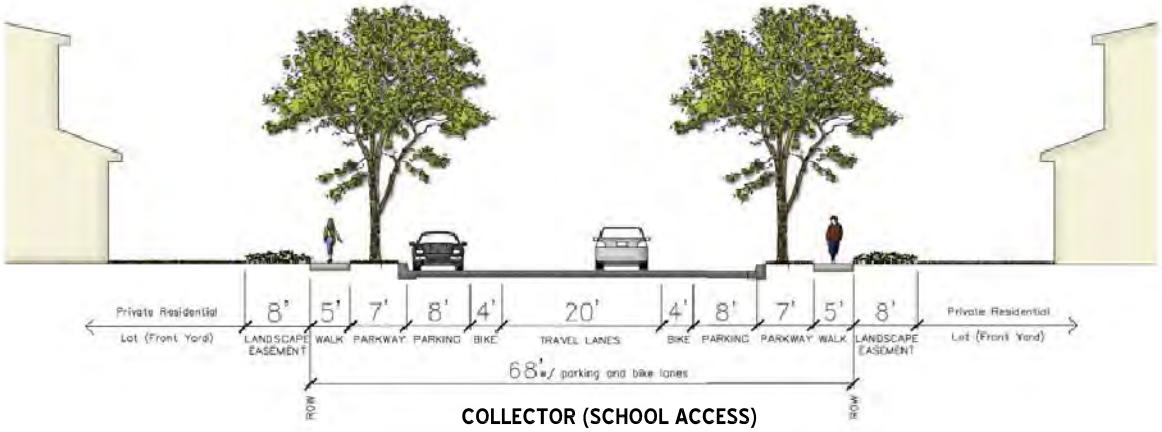
BASELINE AVENUE

EXHIBIT 3-5 (2OF3): RENAISSANCE SPECIFIC PLAN ROADWAY CROSS-SECTIONS



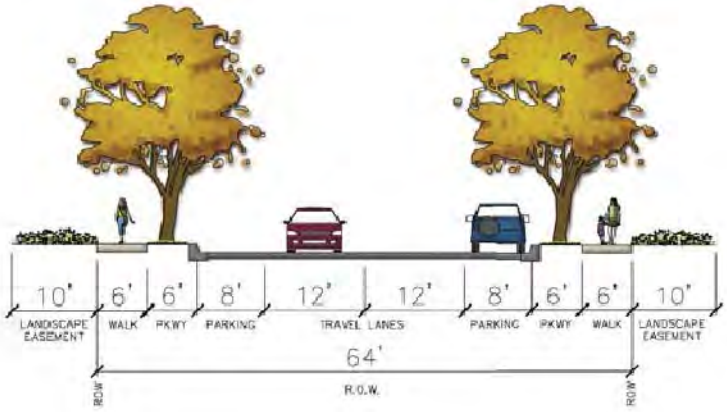
SECONDARY ARTERIAL (MIRO STREET)

RESIDENTIAL COLLECTOR (TYPICAL)

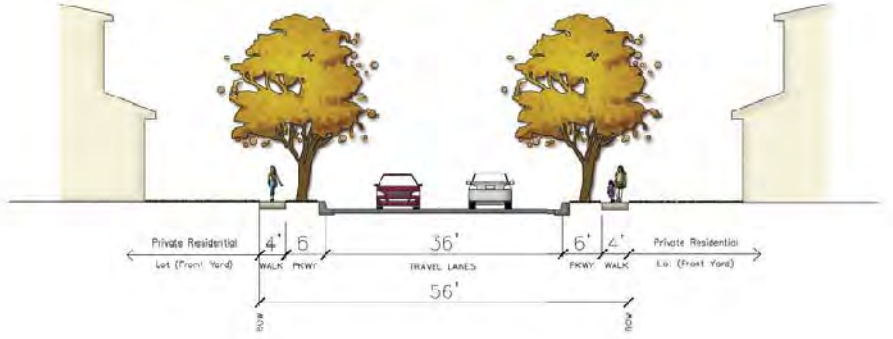


COLLECTOR (SCHOOL ACCESS)

EXHIBIT 3-5 (3OF3): RENAISSANCE SPECIFIC PLAN ROADWAY CROSS-SECTIONS



COMMERCIAL COLLECTOR (PALMETTO AVENUE)



LOCAL STREET (TYPICAL)

EXHIBIT 3-6: CITY OF FONTANA CIRCULATION MASTER PLAN

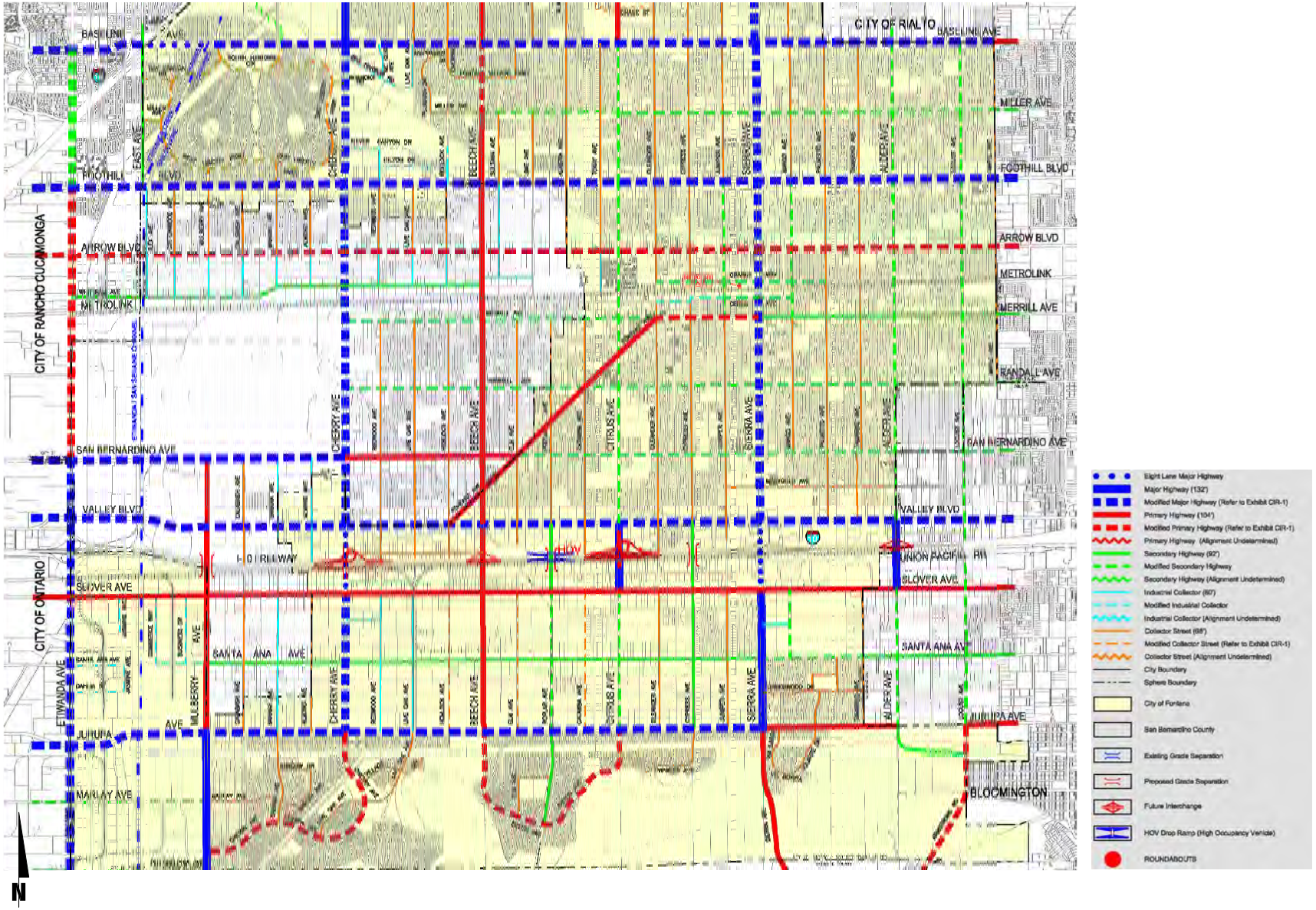


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EXHIBIT 3-7 (1OF2): CITY OF FONTANA GENERAL PLAN ROADWAY CROSS-SECTIONS

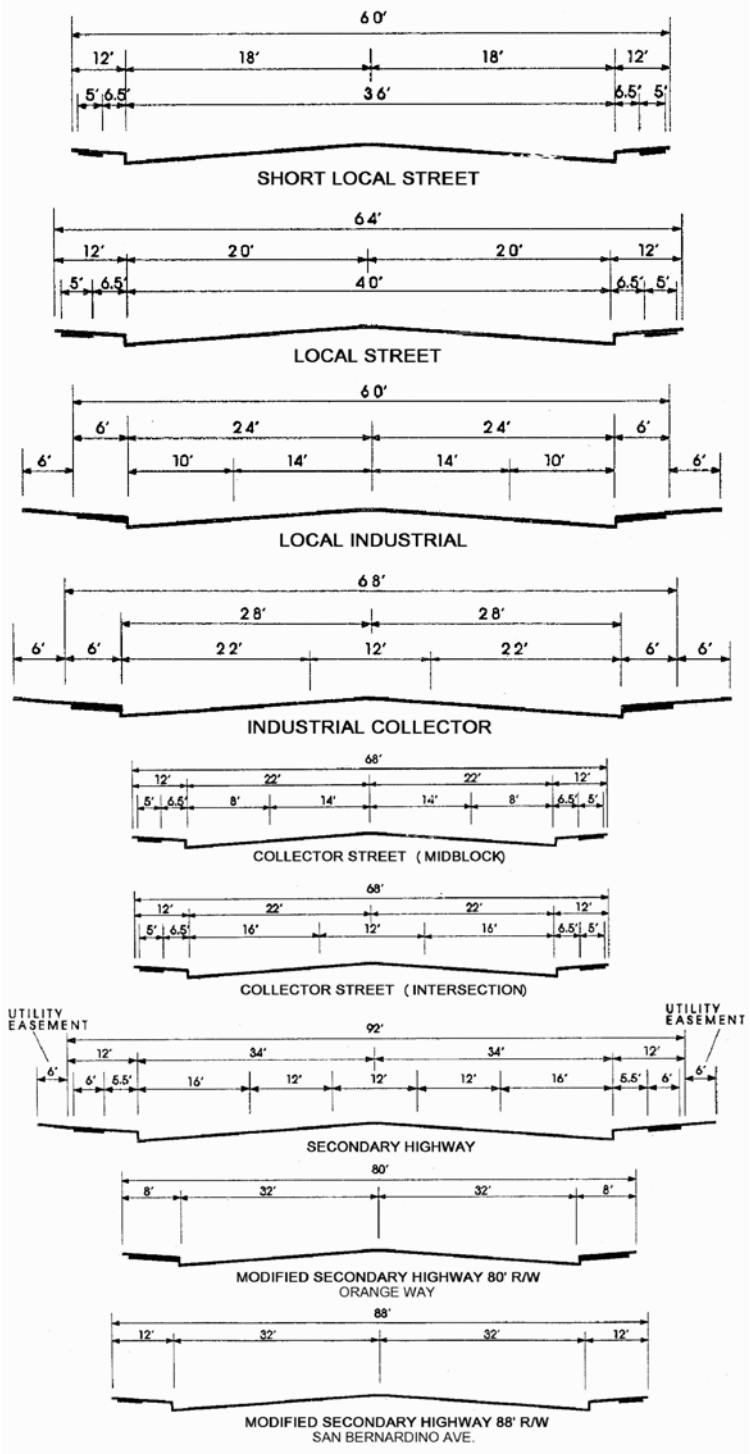
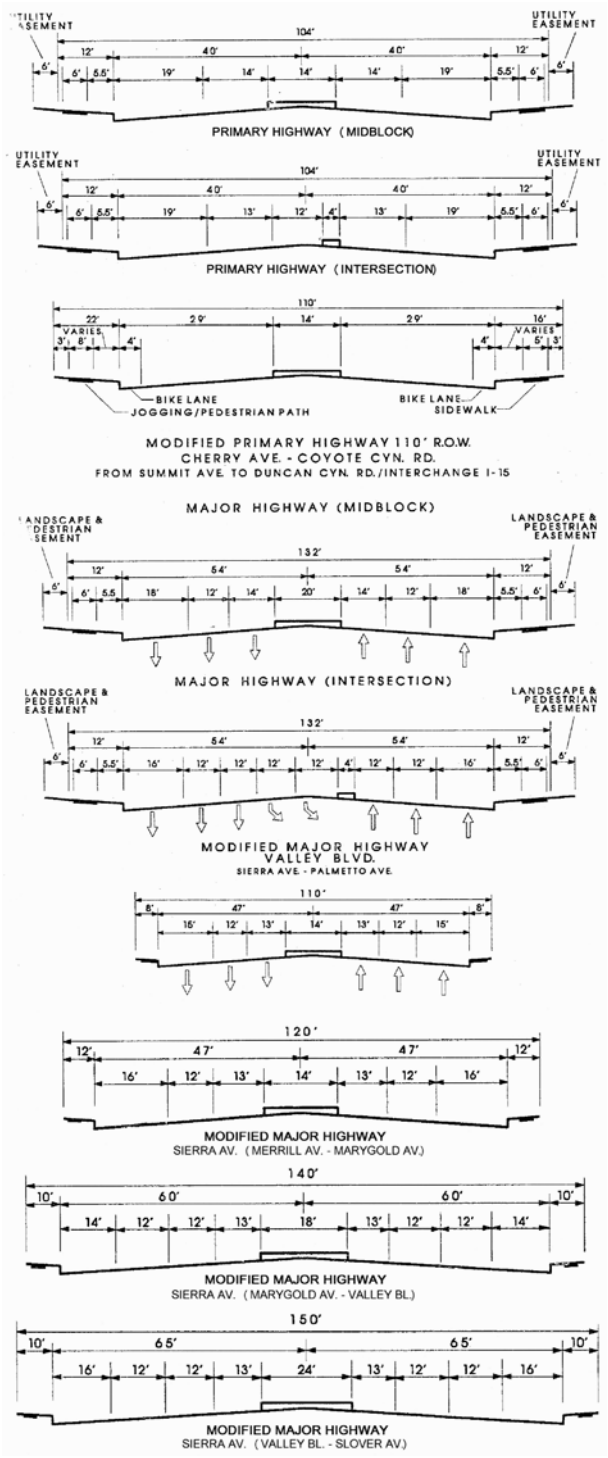


EXHIBIT 3-7 (2OF2): CITY OF FONTANA GENERAL PLAN ROADWAY CROSS-SECTIONS



3.3 TRANSIT SERVICE

The study area is currently served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County, with bus service along Sierra Avenue via Route 10 and 82, and along Baseline Avenue via Route 10. The existing bus routes provided within the area by Omnitrans are shown on Exhibit 3-8. There does not appear to be an existing transit line that would feasibly serve the area in the immediate vicinity of the proposed Project. Transit service is reviewed and updated by Omnitrans periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the applicant work in conjunction with Omnitrans to potentially provide bus service to the site.

3.4 BICYCLE & PEDESTRIAN FACILITIES

Field observations conducted in October 2015 indicate nominal pedestrian and bicycle activity within the study area. Exhibit 3-9 illustrates the City of Rialto bicycle routes. Exhibit 3-10 shows Renaissance Specific Plan Bicycle and Pedestrian Circulation Plan, which bike lanes and sidewalks along Renaissance Parkway and Alder Avenue, and Class III bike routes and sidewalks along Walnut Street and Miro Way. Exhibit 3-11 illustrates the City of Fontana General Plan Bikeways, and Exhibit 3-12 shows the City of Fontana General Plan Trails

Existing pedestrian facilities within the study area are shown on Exhibit 3-13.

3.5 EXISTING (2015) TRAFFIC COUNTS

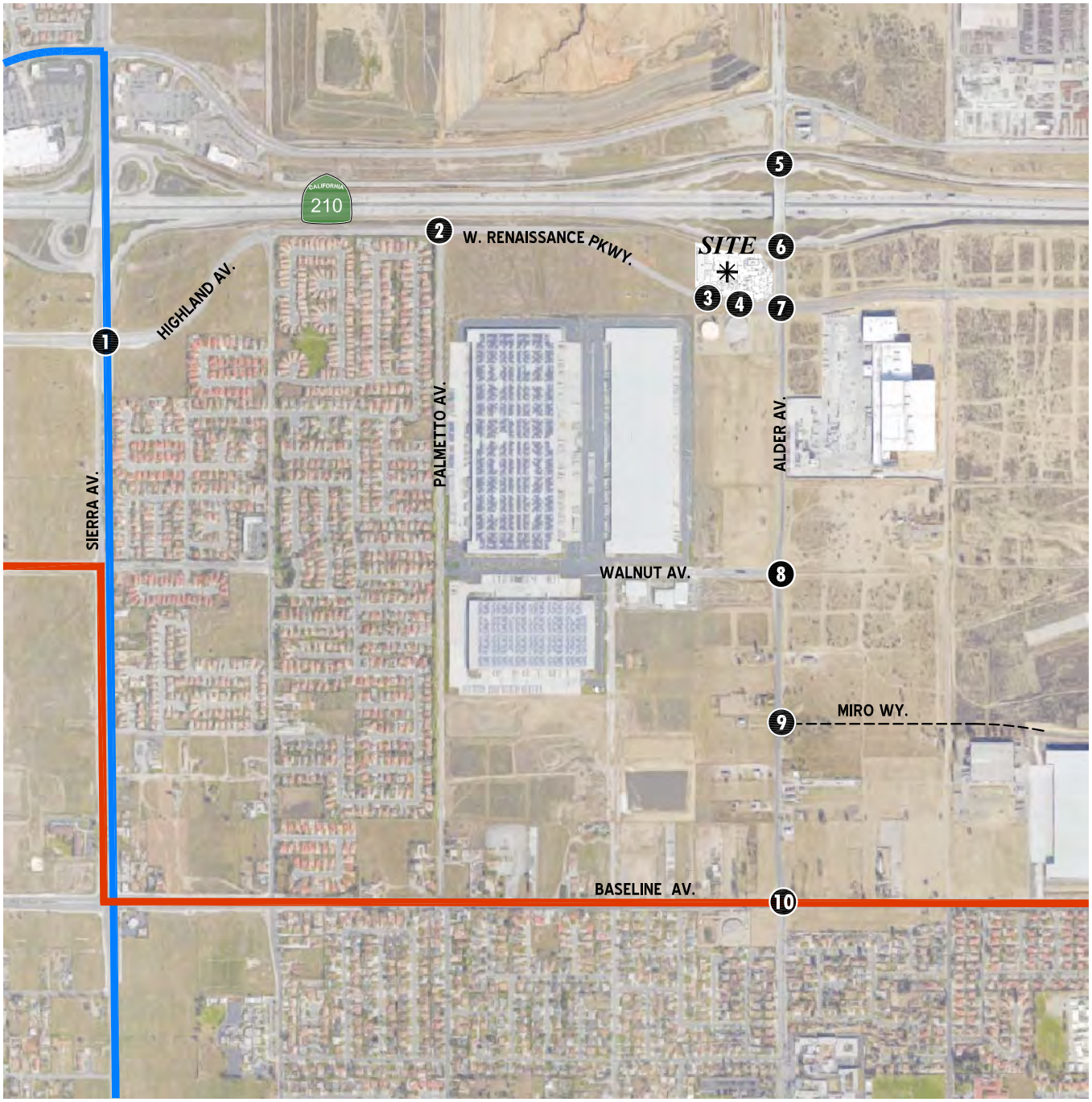
The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2015. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic (e.g., between ramp-to-arterial intersections, etc.).

EXHIBIT 3-8: EXISTING TRANSIT ROUTES



Source: Omnitrans System Map

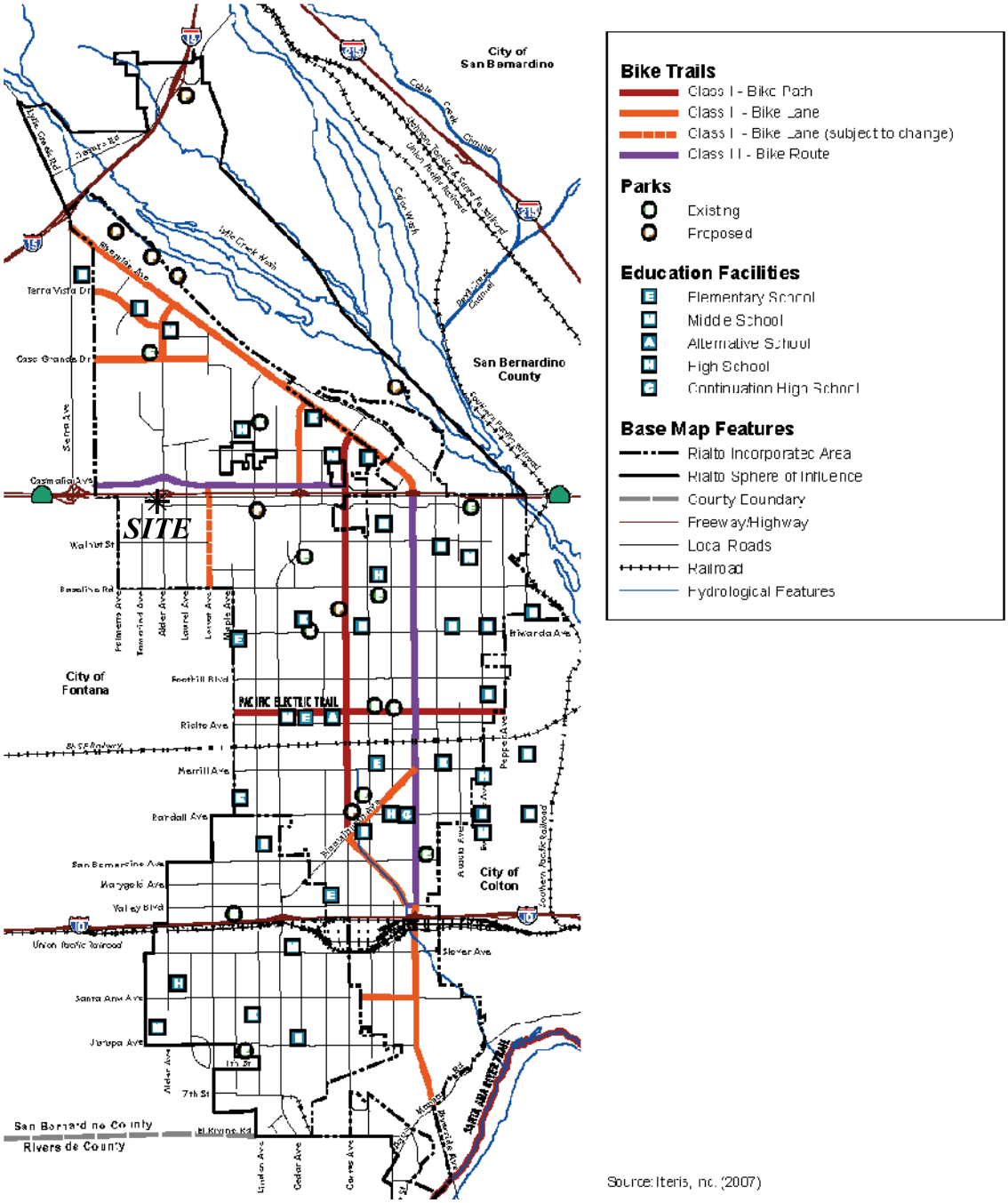
LEGEND:

= OMNITRANS ROUTE 82

= OMNITRANS ROUTE 10

N

EXHIBIT 3-9: CITY OF RIALTO BICYCLE ROUTES



Source: Iteris, Inc. (2007)

EXHIBIT 3-10: RENAISSANCE SPECIFIC PLAN BICYCLE AND PEDESTRIAN CIRCULATION PLAN

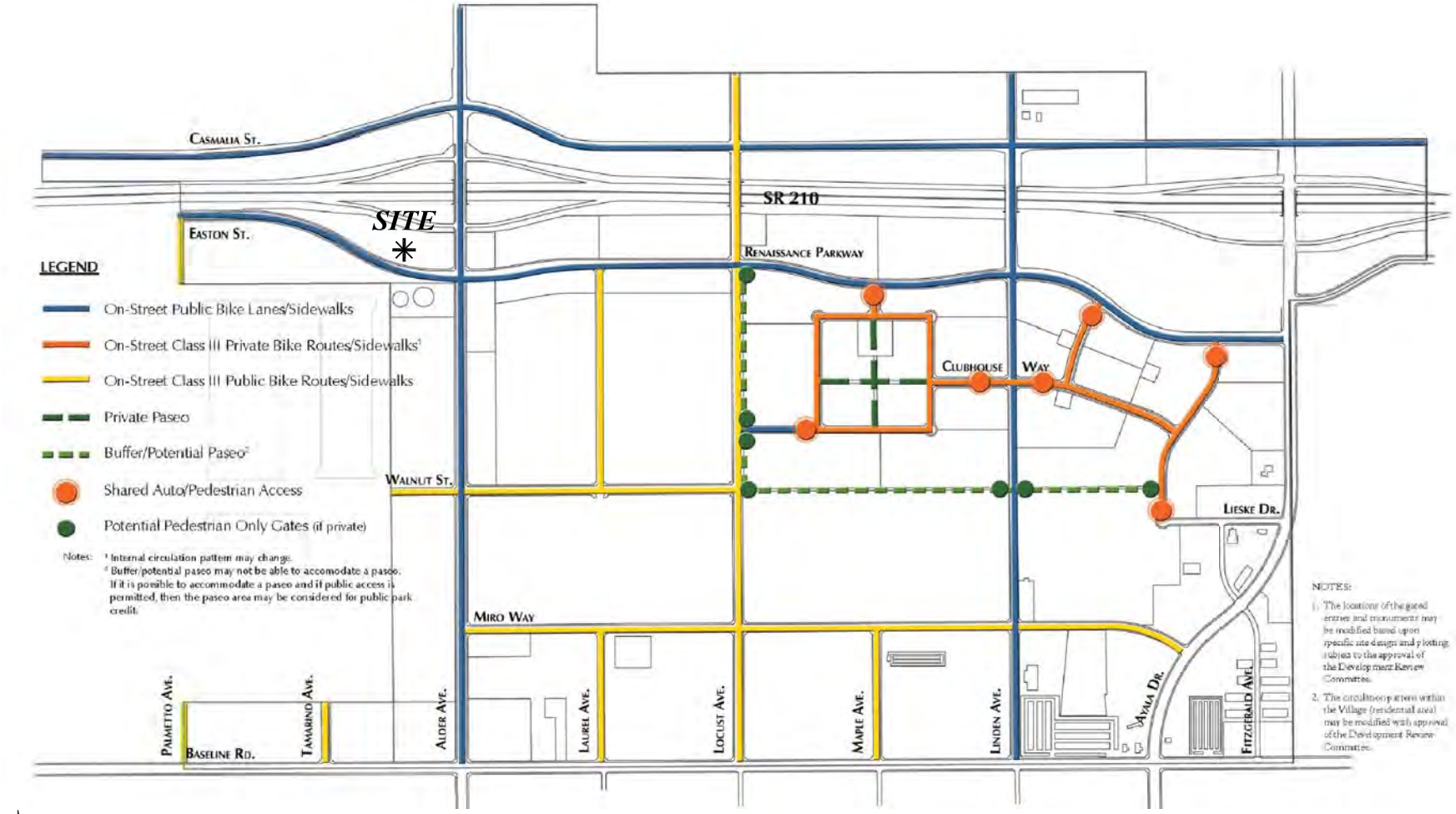
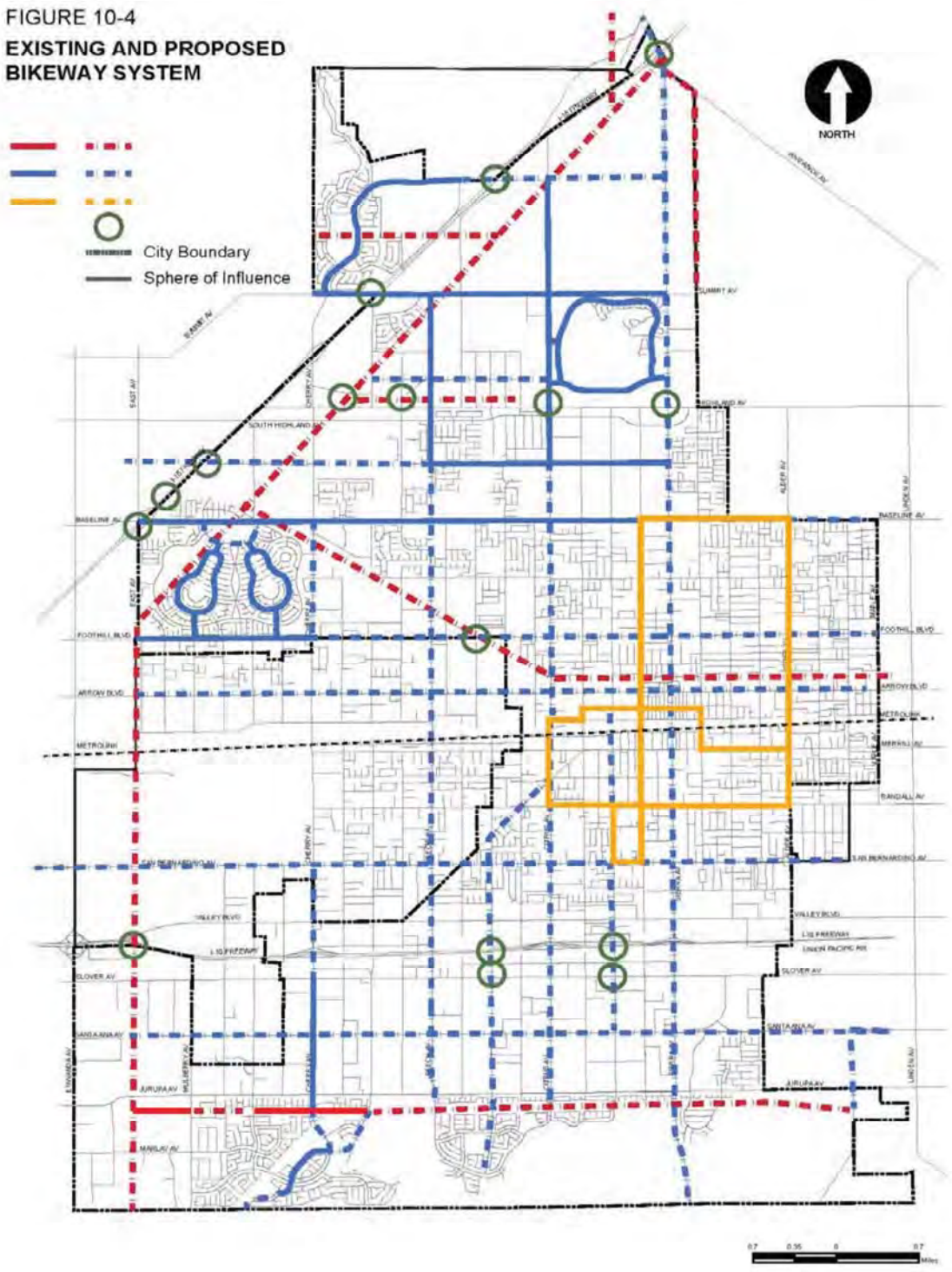


EXHIBIT 3-11: CITY OF FONTANA GENERAL PLAN BIKEWAYS



City of Fontana General Plan

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EXHIBIT 3-12: CITY OF FONTANA GENERAL PLAN TRAILS

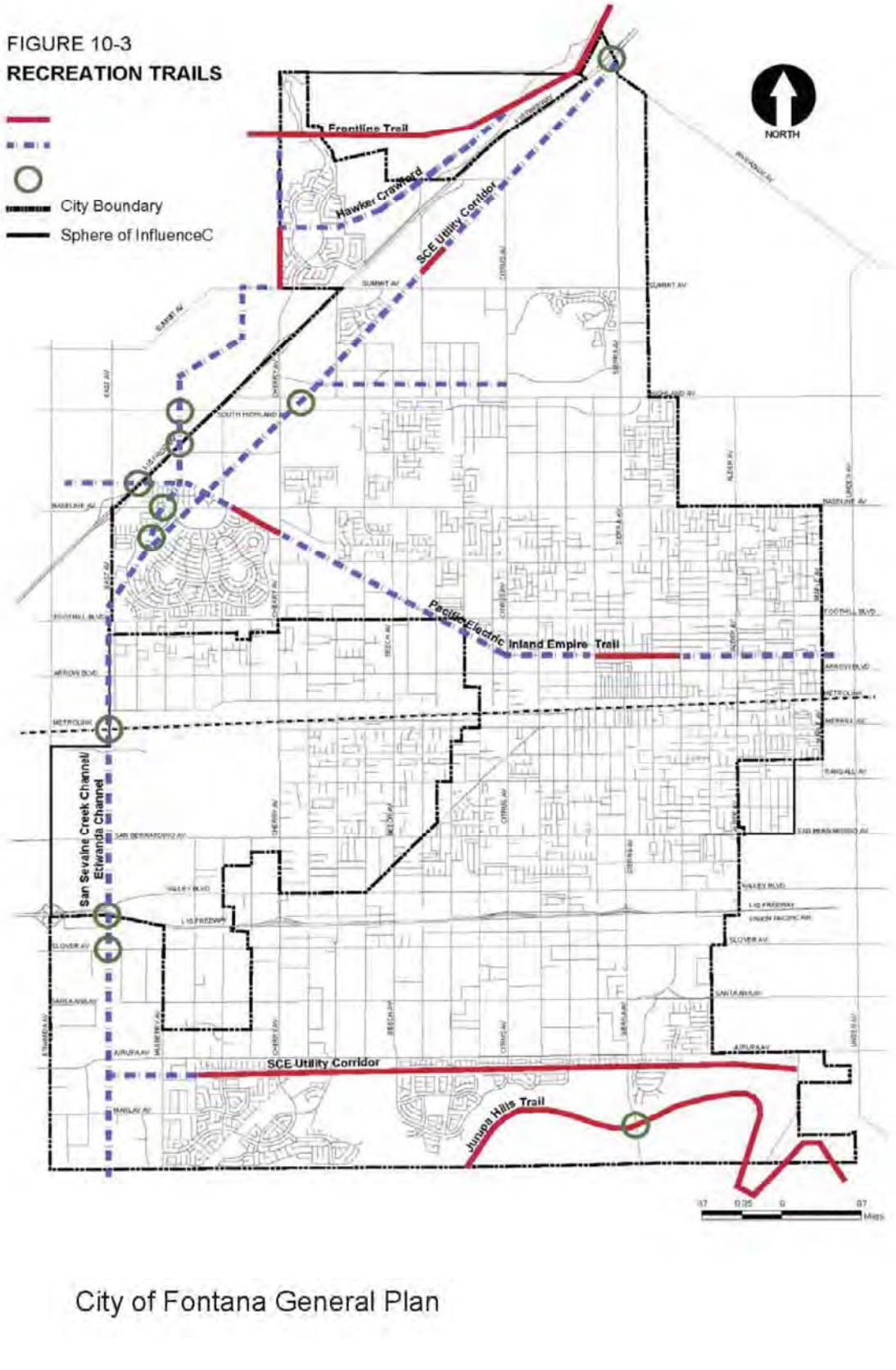

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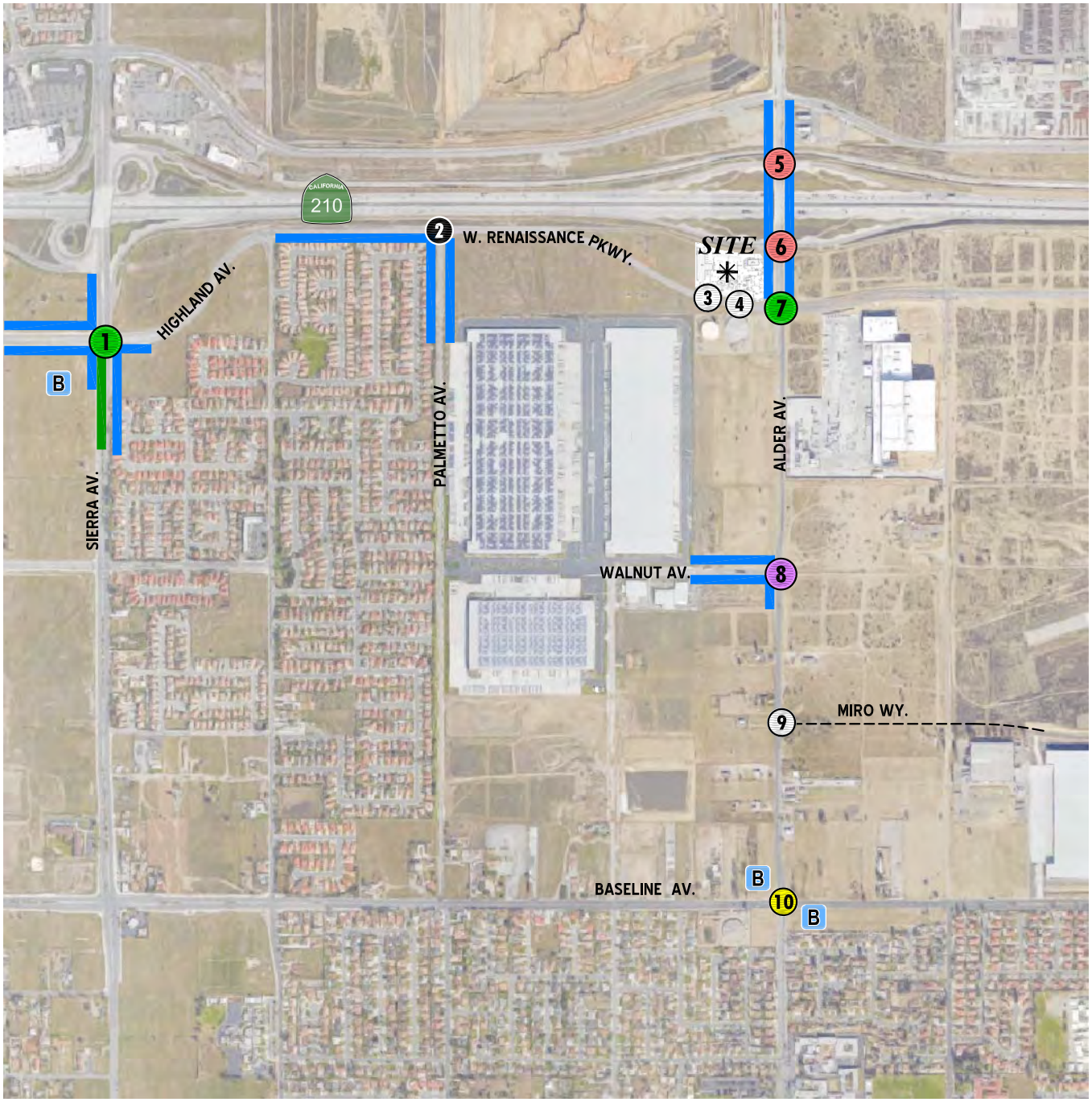
EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES



LEGEND:

- = SIDEWALK
- = BIKE LANE
- B = BUS STOP
- 0 = NO CROSSWALK
- 0 = FUTURE INTERSECTION
- 0 = CROSSWALK ON FOUR APPROACHES
- 0 = CROSSWALK ON TWO APPROACHES
- 0 = CROSSWALK ON ONE APPROACH
- 0 = SCHOOL CROSSWALK ON FOUR APPROACHES

N

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URBAN CROSSROADS

Existing AM and PM peak hour turning movement volumes and average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-14. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.6447 = Leg Volume

For those roadway segments which have 24-hour tube count data available in close proximity to the study area, a comparison between the PM peak hour and daily traffic volumes indicated that the peak-to-daily relationship of approximately 7.908 percent would sufficiently estimate ADT volumes for planning-level analyses. As such, the above equation utilizing a factor of 12.6447 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.908 percent (i.e., 1/0.126447 = 7.908).

3.6 EXISTING (2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that there are no existing study area intersections are currently operating at an unacceptable LOS during the peak hours.

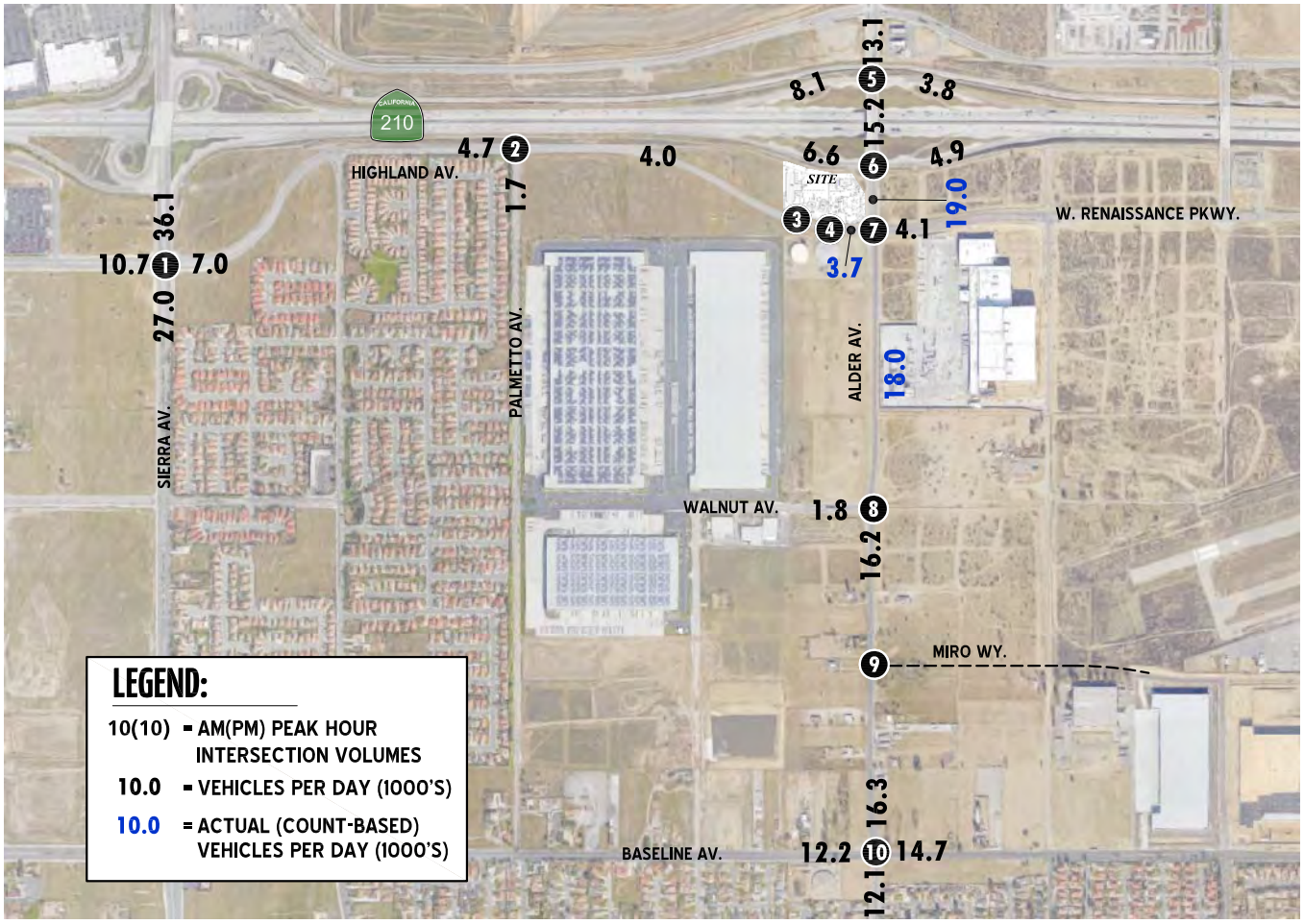
Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-15. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.7 EXISTING (2015) CONDITIONS ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 3-2 provides a summary of the Existing (2015) conditions roadway segment capacity analysis based on the applicable roadway segment capacities, by jurisdiction. As shown on Table 3-2, the following study area roadway segment is currently operating at an unacceptable LOS based on the applicable planning level daily roadway capacity thresholds:

ID	Roadway Segment Location
3	Alder Av., South of Renaissance Pkwy. – LOS F

EXHIBIT 3-14: EXISTING (2015) TRAFFIC VOLUMES



1 Sierra Av. & Highland Av. 299(180) 930(829) 96(167) → 203(166) ← 246(65) ← 12(7) 310(349) → 201(130) → 209(70) → 267(52) 840(1162) 9(18)	**2** Palmetto Av. & Renaissance Pkwy. ← 174(112) ← 25(26) 207(166) → 49(39) → 106(54) 19(15)	**3** Driveway 1 & Renaissance Pkwy. Future Intersection	**4** Driveway 2 & Renaissance Pkwy. Future Intersection	**5** Alder Av. & SR-210 WB Ramps 276(304) 144(262) → 64(78) ← 1(6) ← 219(218) 316(330) 312(389)
6 Alder Av. & SR-210 EB Ramps 322(358) 41(122) → 182(218) → 3(3) → 304(298) → 446(503) 210(263)	**7** Alder Av. & Renaissance Pkwy. 41(69) 570(567) 15(20) → 28(33) ← 86(51) ← 65(50) 73(59) → 73(102) → 70(22) → 60(15) 555(674) 40(65)	**8** Alder Av. & Walnut Av. 51(30) 646(609) 8(0) → 12(10) ← 0(0) ← 1(2) 12(90) → 0(0) → 2(14) → 2(4) 631(654) 5(1)	**9** Alder Av. & Miro Wy. Future Intersection	**10** Alder Av. & Baseline Av. 78(81) 347(373) 187(181) → 233(191) ← 296(297) ← 41(35) 65(54) → 442(424) → 64(56) → 130(50) 346(411) 64(31)

EXHIBIT 3-15: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EXISTING (2015) CONDITIONS

LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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URBAN CROSSROADS

Table 3-1

Intersection Analysis for Existing (2015) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	TS	2	3	1	2	2	1	2	2	1	2	2	1	46.3	28.3	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	1	0	d	0	0	0	0	2	d	0	2	0	13.5	11.4	B	B
3	Driveway 1 / Renaissance Pkwy.		Future Intersection															
4	Driveway 2 / Renaissance Pkwy.		Future Intersection															
5	Alder Av. / SR-210 Westbound Ramps	TS	1	2	0	0	2	d	0	0	0	1	1	0	18.0	15.4	B	B
6	Alder Av. / SR-210 Eastbound Ramps	TS	0	2	d	1	2	0	0	1	1	0	0	0	13.0	17.5	B	B
7	Alder Av. / Renaissance Pkwy.	TS	1	2	d	1	1	1	1	2	0	1	2	0	24.3	18.2	C	B
8	Alder Av. / Walnut Av.	TS	1	1	0	0	1	1	1	1	0	0	1	0	27.9	25.6	C	C
9	Alder Av. / Miro Wy.		Future Intersection															
10	Alder Av. / Baseline Av.	TS	1	1	0	1	1	1	1	1	d	1	1	0	45.9	45.3	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d= Defacto Right Turn Lane

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal

Table 3-2

Existing (2015) Conditions
Roadway Segment Volume/Capacity Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2015)	V/C	LOS	Acceptable LOS
1	Renaissance Pkwy.	West of Alder Av.	4D	33,000	3,743	0.11	A	D
2	Alder Av.	North of Renaissance Pkwy.	4D	33,000	18,976	0.58	A	D
3		South of Renaissance Pkwy.[2]	2U	18,000	18,007	**1.00**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Where the average daily volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS "D" is the City's target LOS for roadway segments within Community Development areas, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS "D" or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this assessment, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. As the LOS threshold for the study area intersections is LOS "D", LOS "D" has also been utilized as the minimum LOS criteria for roadway segments for the purposes of this analysis.

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis have been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

3.8 EXISTING (2015) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no intersections that currently warrant a traffic signal for Existing traffic conditions.

As discussed previously, a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.9 EXISTING (2015) CONDITIONS OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-210 Freeway at the Alder Avenue interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-210 Freeway mainline. Queuing analysis findings are presented in Table 3-3. It is important to note that off-ramp storage lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 3-3, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Worksheets for Existing traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

3.10 EXISTING (2015) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

Existing mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 3-16 for the SR-210 Freeway at the Alder Avenue interchanges. As shown on Table 3-4, the SR-210 Freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing traffic conditions.

Existing conditions basic freeway segment analysis worksheets are provided in Appendix 3.5.

Table 3-3

Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2015) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak	PM Peak	AM	PM
SR-210 WB Off-Ramp / Alder Av.	WBL	1,445	168	180	Yes	Yes
	WBT/R	430	50	73	Yes	Yes
SR-210 EB Off-Ramp / Alder Av.	EBL/T	1,455	178	172	Yes	Yes
	EBR	430	126	130	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 3-4

Basic Freeway Segment Analysis for Existing (2015) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Volume		Truck %	Truck %	Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-210	WB	West of Alder Av.	3	4,746	5,096	3%	3%	26.2	29.0	D	D
		East of Alder Av.	3	4,437	4,758	2%	2%	23.9	26.1	C	D
	EB	West of Alder Av.	3	5,011	5,037	5%	4%	28.7	28.7	D	D
		East of Alder Av.	3	4,776	4,912	4%	4%	26.6	27.7	D	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 3-5

Freeway Ramp Junction Merge/Diverge Analysis for Existing (2015) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS
SR-210 Freeway	WB	On-Ramp at Alder Av.	3	29.2	D	31.2	D
		Off-Ramp at Alder Av.	3	29.1	D	30.6	D
	EB	Off-Ramp at Alder Av.	3	32.6	D	32.7	D
		On-Ramp at Alder Av.	3	28.6	D	29.6	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

EXHIBIT 3-16: EXISTING (2015) FREEWAY MAINLINE VOLUMES

LEGEND:

100/200 = AM/PM PEAK HOUR VOLUMES

N

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3.11 EXISTING (2015) CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Existing traffic conditions and the results of this analysis are presented in Table 3-5. As shown in Table 3-5, the freeway ramp merge and diverge areas currently operate at LOS D or better.

Existing freeway ramp junction operations analysis worksheets are provided in Appendix 3.6.

3.12 RECOMMENDED IMPROVEMENTS

3.12.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

No improvement strategies have been recommended as there are no intersections that are anticipated to operate at an unacceptable LOS under Existing (2015) conditions.

3.12.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As shown on Table 3-6, the following roadway segment is anticipated to operate at acceptable LOS with the future planned improvement:

ID	Roadway Segment Location
3	Alder Av., South of Renaissance Pkwy.

With the implementation of the future planned improvements, the roadway segment of Alder Avenue, south of Renaissance Parkway is anticipated to operate at acceptable LOS.

3.12.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

No improvement strategies have been recommended as there are no freeway mainline segments or ramp junctions of the SR-210 Freeway that were analyzed for this study that are anticipated to operate at an unacceptable LOS under Existing (2015) conditions.

Table 3-6

Existing (2015) Conditions
Roadway Segment Volume/Capacity Analysis With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2015)	V/C	LOS	Acceptable LOS
3	Alder Av.[2]	South of Renaissance Pkwy.	**4D**	33,000	18,007	0.55	A	D

4D = Improvement

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As such, the roadway segment is anticipated to operate at acceptable LOS with the future planned improvement.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of a 6,506 square foot (sf) gas station with convenience store and car wash (including 1,000 square feet of fast food without drive-through use) with 16 vehicle fueling positions, 4,500 square foot high turnover sit-down restaurant, a 100 room hotel, and 5,440 square feet of fast food with drive-through use. For the purposes of this traffic study, the Project is anticipated to be developed in a single phase with an anticipated opening year of 2019.

The Project is proposed to have access on Renaissance Parkway. Driveway 1 is assumed to allow for full-access. Driveways 2 is proposed for right-in/right-out access only. Regional access to the Project site will be provided by the SR-210 Freeway via Alder Avenue.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. Trip generation rates used to estimate Project traffic are shown in Table 4-1. The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their *Trip Generation* manual, 9th Edition, 2012. (4)

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses such as fast-food restaurants and gas stations. As the Project is proposed to include these types of land uses, a 25 percent pass-by reduction was utilized. Although the ITE *Trip Generation Handbook* allows higher pass-by reduction percentages for each land use, a 25 percent reduction was taken as it is the maximum allowable per the City of Rialto's traffic study guidelines.

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. An internal capture reduction was applied to recognize the interactions that would occur between the various complimentary land uses. For example, hotel guests may dine at one of the restaurants without leaving the site and are therefore considered as vehicle trips that are internal to the site. A 10 percent internal capture reduction was utilized as 10 percent is the maximum allowable per the City of Rialto TIA guidelines.

As shown on Table 4-2, the proposed Project is anticipated to generate a net total of 5,262 trip-ends per day with 432 net AM peak hour trips and 380 net PM peak hour trips.

Table 4-1

Project Trip Generation Rates[1]

Land Use	ITE Code	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Hotel	310	RM	0.31	0.22	0.53	0.31	0.29	0.60	8.17
High Turnover (Sit-Down) Restaurant	932	TSF	5.95	4.86	10.81	5.91	3.94	9.85	127.15
Fast Food w/o Drive-Through	933	TSF	26.32	17.55	43.87	13.34	12.81	26.15	716.00
Fast Food w/ Drive-Through	934	TSF	23.16	22.26	45.42	16.98	15.67	32.65	496.12
Gas/Service Station w/Food Mart and Car Wash	946	VFP	6.04	5.80	11.84	7.07	6.79	13.86	152.84

[1] Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 9th Edition, 2012.

[2] RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

Table 4-2

Project Trip Generation Summary

Land Use	Quantity	Units[1]	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Hotel	100	RM	31	22	53	31	29	60	817
Internal Capture [2]:			*-3*	*-2*	*-5*	*-3*	*-3*	*-6*	*-82*
Net External Trips:			**28**	**20**	**48**	**28**	**26**	**54**	**735**
High Turnover Sit-Down Restaurant	4.500	TSF	27	22	49	27	18	44	572
Internal Capture [2]:			*-3*	*-2*	*-5*	*-3*	*-2*	*-5*	*-57*
Pass-by Reduction (PM-25%) [3]:			*0*	*0*	*0*	*-4*	*-4*	*-8*	*-129*
Net External Trips:			**24**	**20**	**44**	**20**	**12**	**31**	**386**
Fast Food w/o Drive-Through	1.000	TSF	26	18	44	13	13	26	716
Internal Capture [2]:			*-3*	*-2*	*-5*	*-1*	*-1*	*-2*	*-72*
Pass-by Reduction(AM/PM-25%) [3]:			*-6*	*-4*	*-10*	*-3*	*-3*	*-6*	*-161*
Net External Trips:			**17**	**12**	**29**	**9**	**9**	**18**	**483**
Fast Food w/ Drive-Through	5.440	TSF	126	121	247	92	85	177	2,699
Internal Capture [2]:			*-3*	*-1*	*-4*	*-5*	*-4*	*-9*	*-34*
Pass-by Reduction(AM/PM-25%) [3]:			*-31*	*-30*	*-61*	*-20*	*-20*	*-40*	*-635*
Net External Trips:			**92**	**90**	**182**	**67**	**61**	**128**	**2,030**
Gas/Service Station w/ Food Mart and Car Wash	16	VFP	97	93	190	113	109	222	2,445
Internal Capture [2]:			*-10*	*-9*	*-19*	*-11*	*-11*	*-22*	*-245*
Pass-by Reduction (AM/PM-25%) [3]:			*-21*	*-21*	*-42*	*-26*	*-26*	*-52*	*-572*
Net External Trips:			**66**	**63**	**129**	**76**	**72**	**148**	**1,628**
TOTAL NET EXTERNAL TRIPS			**227**	**205**	**432**	**200**	**180**	**380**	**5,262**

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

[2] Internal capture calculated is the maximum allowable per City of Rialto traffic study guidelines (e.g., 10 percent).

[3] Pass-by reduction is the maximum allowable per City of Rialto traffic study guidelines (e.g., 25 percent).

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system.

Exhibits 4-1 illustrates the trip distribution patterns.

4.3 MODAL SPLIT

The potential for Project trip to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

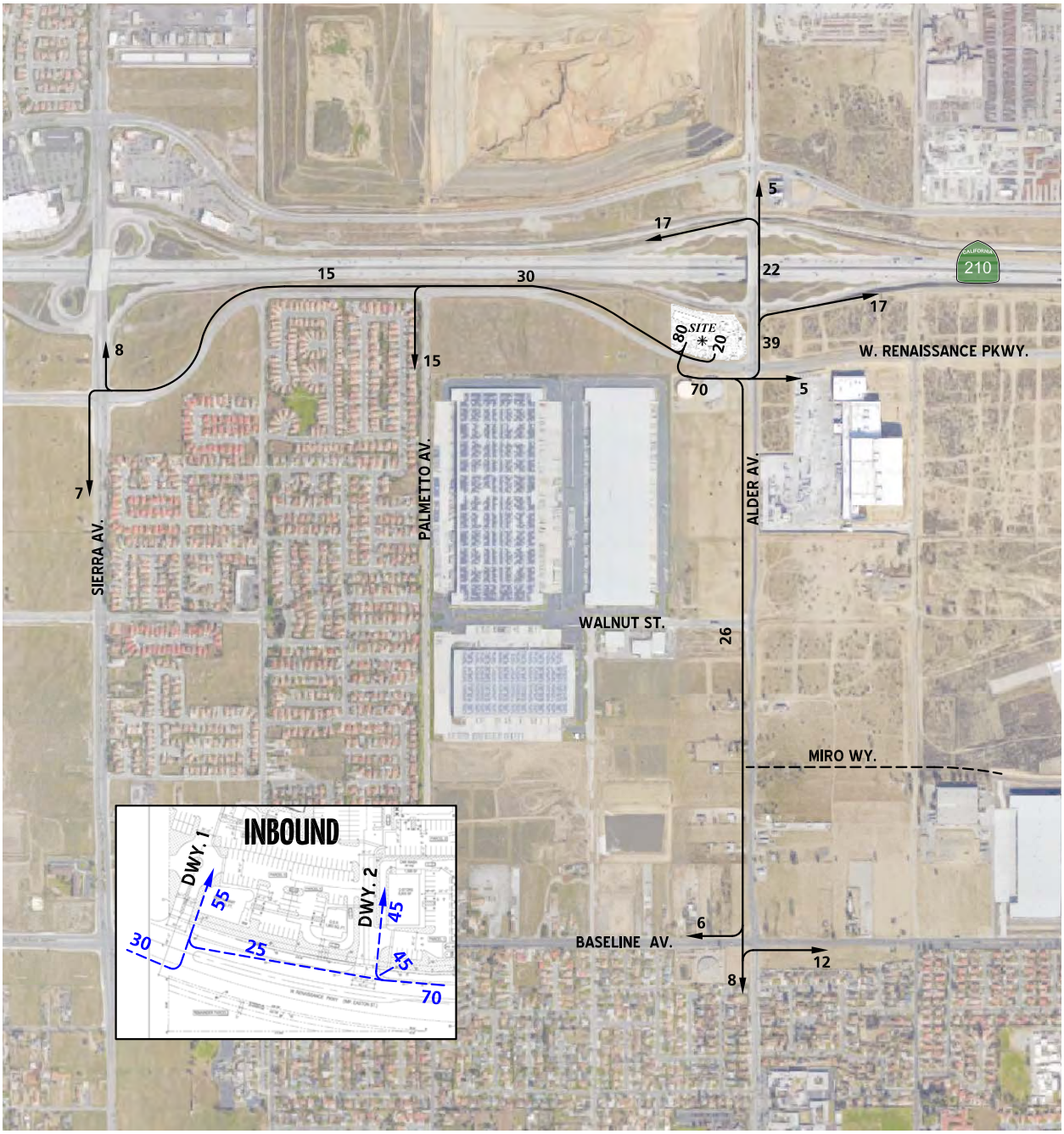
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on Exhibits 4-2.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon a background (ambient) growth factor of 2% per year. The ambient growth factor is intended to approximate traffic growth. The total ambient growth is 8.24% for 2019 traffic conditions (compounded growth of 2 percent per year over 4 years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

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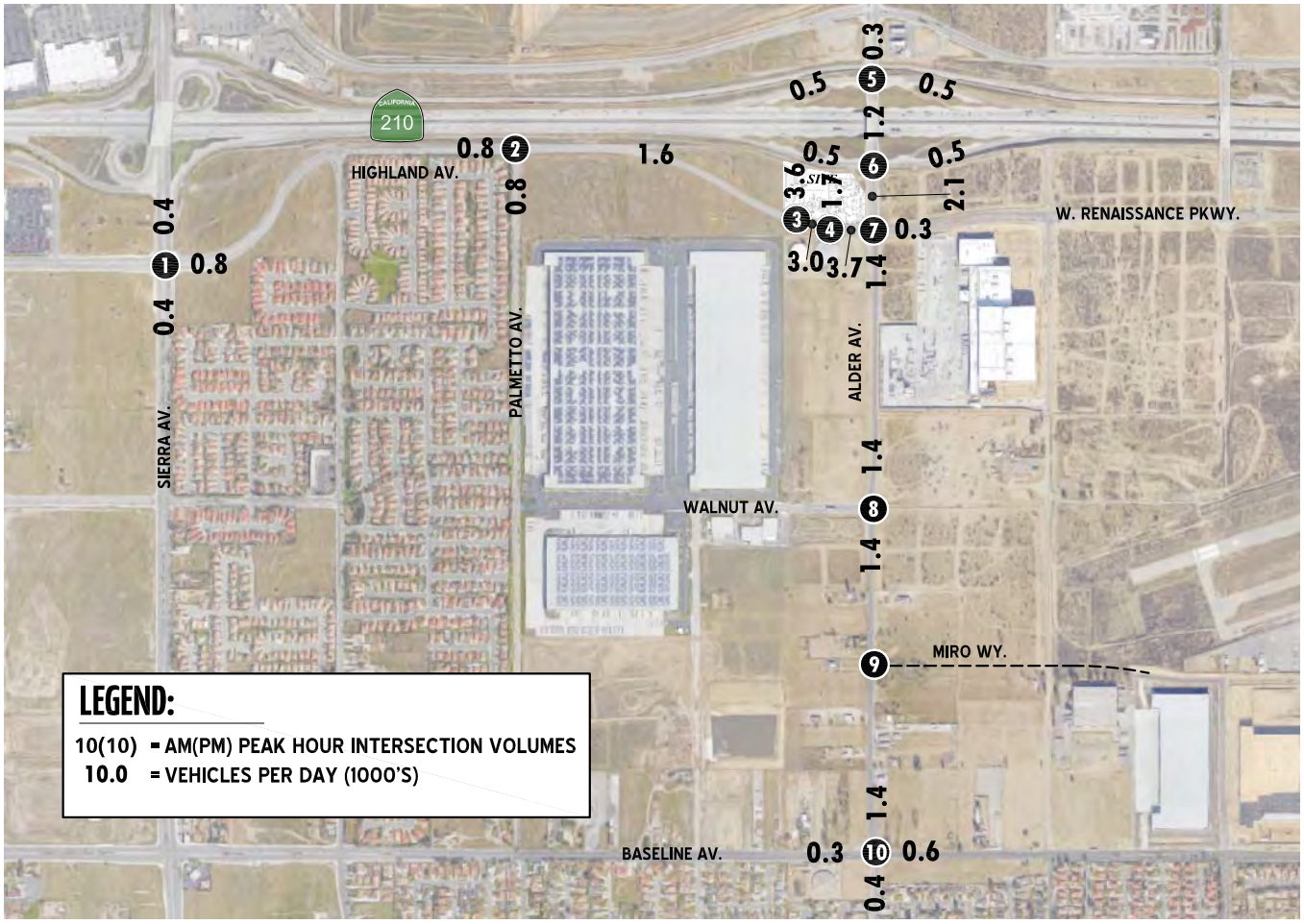
EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 Sierra Av. & Highland Av.	**2** Palmetto Av. & Renaissance Pkwy.	**3** Driveway 1 & Renaissance Pkwy.	**4** Driveway 2 & Renaissance Pkwy.	**5** Alder Av. & SR-210 WB Ramps
0(0), 0(0), 18(16) → 16(14), 0(0), 14(13)	31(27), 31(27)	20(18), 144(126) → 57(50), 41(36)	41(36) → 102(90), 57(50)	0(0), 11(10) → 0(0), 0(0), 39(34)
0(0), 0(0), 0(0) / 0(0), 0(0), 16(14)	34(30), 0(0) / 0(0), 34(30)	68(60), 0(0)	144(126)	35(31), 10(9)
6 Alder Av. & SR-210 EB Ramps	**7** Alder Av. & Renaissance Pkwy.	**8** Alder Av. & Walnut Av.	**9** Alder Av. & Miro Wy.	**10** Alder Av. & Baseline Av.
50(44), 0(0)	89(78), 0(0), 0(0) → 0(0), 11(10), 0(0)	0(0), 53(47), 0(0) → 0(0), 0(0), 0(0)	Intersection Does Not Exist	12(11), 16(14), 25(22) → 27(24), 0(0), 0(0)
0(0), 0(0), 39(34) / 45(40), 35(31)	80(70), 10(9), 53(47) / 59(52), 0(0), 0(0)	0(0), 0(0), 0(0) / 0(0), 59(52), 0(0)		14(12), 0(0), 0(0) / 0(0), 18(16), 0(0)

The currently adopted Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP) (April 2012) growth forecasts for the City of Rialto identifies projected growth in population of 98,900 in 2008 to 125,200 in 2035, or a 26.59 percent increase over the 27 year period. (5) The change in population equates to roughly a 0.88 percent annual growth rate, compounded annually. Similarly, growth over the same 27 year period in households is projected to increase by 38.25 percent, or 1.21 percent annual growth rate. Finally, growth in employment over the same 27 year period is projected to increase by 43.23 percent, or a 1.34 percent annual growth rate.

Based on a comparison of Existing traffic volumes to the EAPC (2019) forecasts, the average growth rate is estimated at approximately 15.15 percent compounded annually between Existing and EAPC (2019) traffic conditions. The annual growth rate at each individual intersection is not lower than 3.03 percent to as high as 23.93 percent compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Rialto for near term and long range traffic conditions, especially when considered along with the addition of cumulative development project traffic and project-related traffic. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate, as opposed to understate, the potential impacts to traffic and circulation.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed from consultation with the City of Rialto and City of Fontana staff.

Exhibit 4-3 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-3. If applicable, the traffic generated by individual cumulative projects was manually added to EAPC (2019) traffic conditions forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-3 are reflected as part of the background traffic.

4.7 NEAR-TERM CONDITIONS

The “buildup” approach combines existing traffic counts with a background ambient growth factor to forecast the EAP (2019) and EAPC (2019) traffic conditions. An ambient growth factor of 8.24% accounts for background (area-wide) traffic increases that occur over time up to the year 2019 from the year 2015 (compounded two percent per year growth over a 4 year period). Project traffic is added to assess EAP (2019) and EAPC (2019) traffic conditions, respectively. Traffic volumes generated by cumulative development projects are then added to assess the EAPC (2019) traffic conditions. The 2019 roadway networks are similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

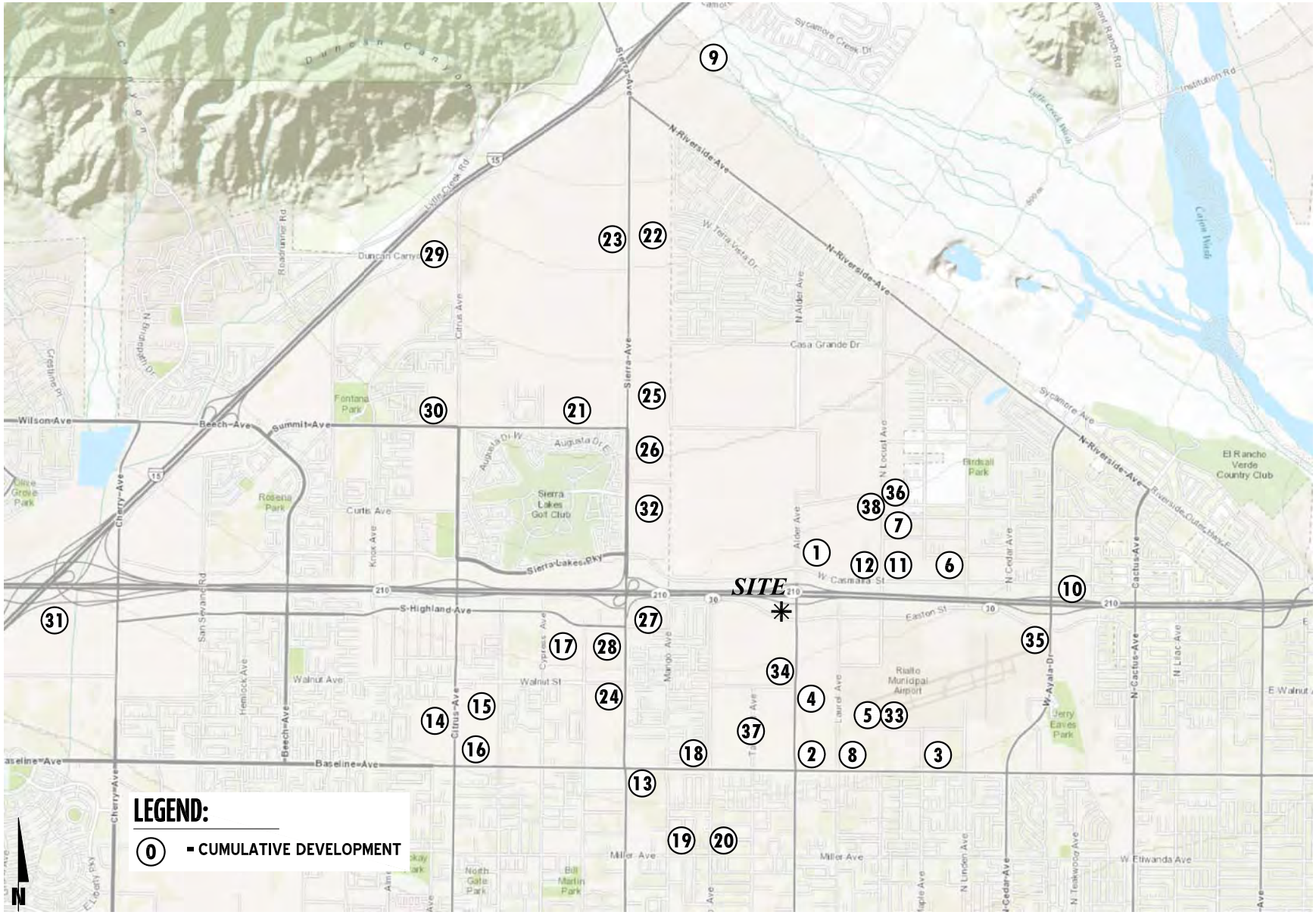


Table 4-3

Cumulative Development Summary

ID	Project/Location	Description Land Use / Quantity
City of Rialto		
1	Golden Springs, LLC	630 TSF Warehousing
2	I-210 Logistics III, LLC	742 TSF Warehousing
3	I-210 Logistics II, LLC	763 TSF Warehousing
4	Niagara Bottling, LLC	596 TSF Warehousing
5	Medline Industries, LLC	1090 TSF Warehousing
6	CapRock I	430 TSF Warehousing
7	CapRock II	609 TSF Warehousing
8	Shaw Development Company	176 TSF Warehousing
9	Lytle Creek SP	6,300 SFDU
10	Emaar Enterprise	20 SFDU
11	B&B Plastics, Inc.	151 TSF Warehousing
12	Pusan Pipe, Inc.	39 TSF Manufacturing
City of Fontana		
13	Gabriella	552 MFDU's, 25,819 TSF Commercial
14	Citrus / Walnut Residential	84 SFDU's
15	Oleander / Walnut Residential	25 SFDU's
16	Citrus / Miller Residential	14 SFDU's
17	Juniper / Walnut Residential	74 SFDU's
18	Mango / Baseline Residential	31 SFDU's
19	Mango / Miller Residential	15 SFDU's
20	Palmetto / Elaine Residential	15 SFDU's
21	Summit at Rosena SP	600 SFDU's
22	Sierra Crest (Phase 1 - 187 units; Phase	369 SFDU's
23	The Arboretum SP	600 SFDU's
24	Fontana Promenade	391 SFDU, 55 MFDU. 166.000 TSF Retail
25	Sierra Commerce Center Phase 1	742.142 TSF Warehousing
26	Sierra Commerce Center Phase 2	746.300 TSF Warehousing
27	Highland Village	44.430 TSF Retail, 12.000 TSF Restaurants, 4.948 TSF Fast Food and 25.000 TSF Medical Office
28	Walmart Fontana (N)	193.303 TSF Walmart, 16.25 TSF Restaurant, 11.35 TSF Retail, 9.4 TSF Fast Food and 4.08 TSF Gas Station
29	Ventana Specific Plan	504 SFDU, 338 MFDU, 215.570 TSF Retail, 362.930 TSF Office/Light Industrial/ Manufacturing
30	Citrus Heights North Specific Plan	499 SFDU
31	Westgate Specific Plan	188.235 SF Retail, 2417.403 TSF Office, 1637.221 TSF Industrial
32	Sierra Lakes Commerce Center	597.818 TSF Warehousing

SFDU= Single Family Dwelling Units; MFDU = Multi-Family Dwelling Units; TSF = Thousand Square Feet
RM=Rooms; VFP=Vehicle Fueling Positions

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAP (2019)
    - Existing 2015 volumes
    - Ambient growth traffic (8.24%)
    - Project Traffic
- EAPC (2019)
    - Existing 2015 volumes
    - Ambient growth traffic (8.24%)
    - Cumulative Development traffic
    - Project Traffic

5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, roadway segment capacity, traffic signal warrant, and freeway mainline operations analyses. Pursuant to City of Rialto traffic study guidelines, EAP is used to determine impacts. E+P is provided for informational use only.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the Project driveways and those facilities assumed to be in place prior to or constructed by the Project to provide site access are also assumed to be in place for E+P conditions.

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 shows the weekday ADT and peak hour volumes which can be expected for E+P traffic conditions.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA.

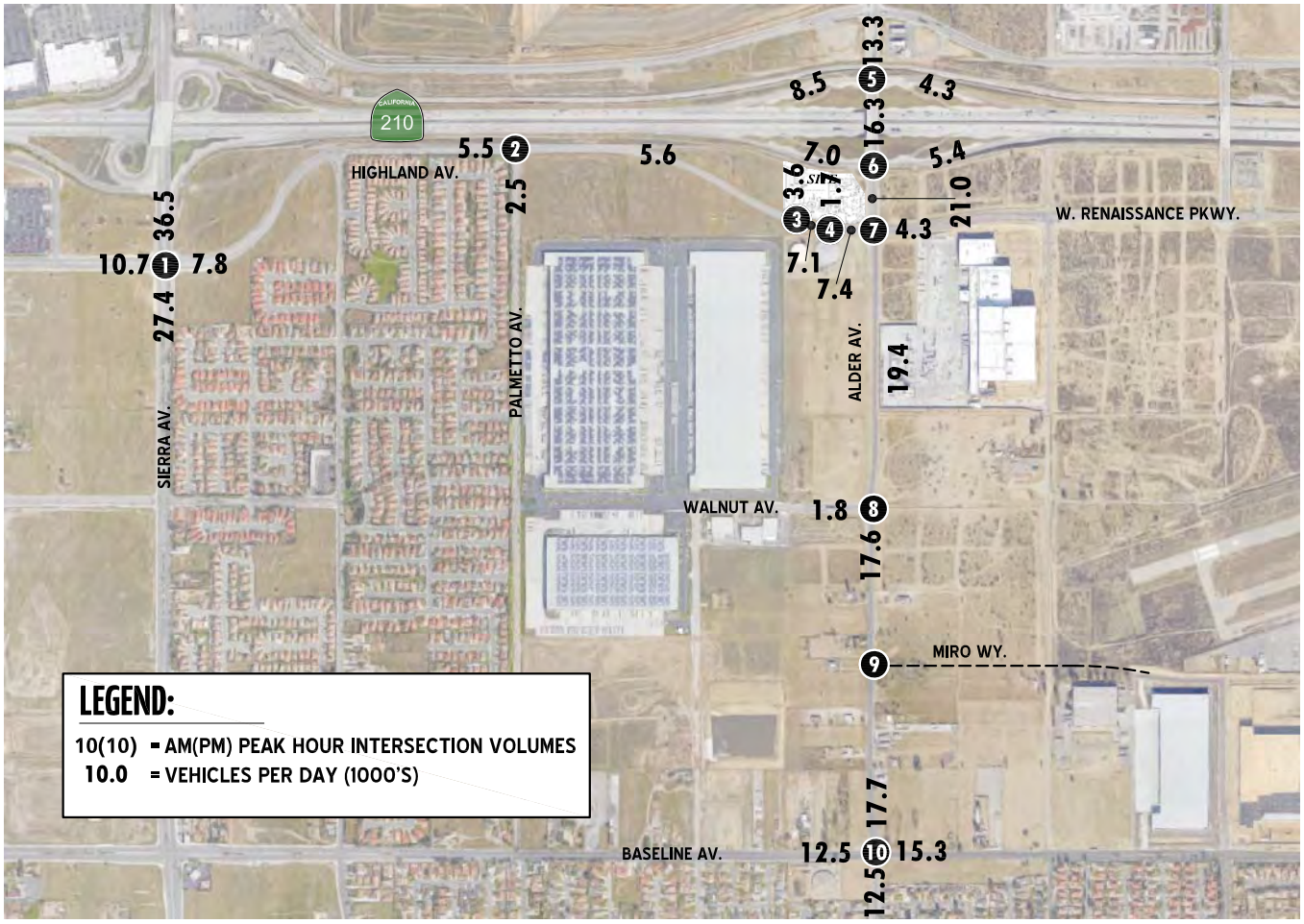
The intersection analysis results are summarized in Table 5-1 and shown on Exhibit 5-2, which indicates that there are no study area intersections are anticipated to operate at unacceptable LOS for E+P conditions.

The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

5.4 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis based on the applicable roadway segment capacities, by jurisdiction. As shown on Table 5-2, the addition of Project traffic is not anticipated to result in any additional roadway segment capacity deficiency in addition to those previously identified for Existing traffic conditions.

EXHIBIT 5-1: E+P TRAFFIC VOLUMES



1 Sierra Av. & Highland Av.	2 Palmetto Av. & Renaissance Pkwy.	3 Driveway 1 & Renaissance Pkwy.	4 Driveway 2 & Renaissance Pkwy.	5 Alder Av. & SR-210 WB Ramps
299(180) 930(829) 114(183) → 219(180) ← 246(65) ← 26(20)	← 205(139) ← 56(53)	20(18) 144(126) → 57(50) ← 228(171)	41(36) → 102(90) ← 244(185)	276(304) 155(272) → 64(78) ← 1(6) ← 258(252)
310(349) 201(130) 209(70) → 267(52) 840(1162) 25(32) ↑	241(196) 49(39) → 106(54) 53(45) ↑	68(60) 216(183) →	360(309) →	351(361) 322(398) ↑

6 Alder Av. & SR-210 EB Ramps	7 Alder Av. & Renaissance Pkwy.	8 Alder Av. & Walnut Av.	9 Alder Av. & Miro Wy.	10 Alder Av. & Baseline Av.
372(402) 41(122) →	130(147) 570(567) 15(20) → 28(33) ← 97(61) ← 65(50)	51(30) 699(656) 8(0) → 12(10) ← 0(0) ← 1(2)	Intersection Does Not Exist	90(92) 363(387) 212(203) → 260(215) ← 296(297) ← 41(35)
182(218) 3(3) 343(332) → 491(543) 245(294) ↑	153(129) 83(111) 123(69) → 119(67) 555(674) 40(65) ↑	12(90) 0(0) 2(14) → 2(4) 690(706) 5(1) ↑		79(66) 442(424) 64(56) → 130(50) 364(427) 64(31) ↑

EXHIBIT 5-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR E+P CONDITIONS

LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2015)				E+P				Change in Delay	
			Delay (secs.)[1]		LOS		Delay (secs.)[1]		LOS			
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	TS	46.3	28.3	D	C	46.6	29.4	D	C	0.3	1.1
2	Palmetto Av. / Renaissance Pkwy.	CSS	13.5	11.4	B	B	18.2	13.0	C	B	4.7	1.6
3	Driveway 1 / Renaissance Pkwy.	**TS**	Does Not Exist				19.2	13.3	B	B	--	--
4	Driveway 2 / Renaissance Pkwy.	**CSS**	Does Not Exist				8.7	8.7	A	A	--	--
5	Alder Av. / SR-210 Westbound Ramps	TS	18.0	15.4	B	B	20.6	19.1	C	B	2.6	3.7
6	Alder Av. / SR-210 Eastbound Ramps	TS	13.0	17.5	B	B	13.1	17.6	B	B	0.1	0.1
7	Alder Av. / Renaissance Pkwy.	TS	29.7	18.2	C	B	34.9	25.2	C	C	5.2	7.0
8	Alder Av. / Walnut Av.	TS	27.9	25.6	C	C	28.4	27.4	C	C	0.5	1.8
9	Alder Av. / Miro Wy.		Does Not Exist				Does Not Exist				--	--
10	Alder Av. / Baseline Av.	TS	45.9	48.8	D	D	49.9	50.7	D	D	4.0	1.9

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

Table 5-2

E+P Conditions
Roadway Segment Volume/Capacity Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2015)	V/C	LOS	E+P	V/C	LOS	Acceptable LOS
1	Renaissance Pkwy.	West of Alder Av.	4D	33,000	3,743	0.11	A	7,427	0.23	A	D
2	Alder Av.	North of Renaissance Pkwy.	4D	33,000	18,976	0.58	A	21,028	0.64	B	D
3		South of Renaissance Pkwy.[2]	2U	18,000	18,007	**1.00**	**F**	19,375	**1.08**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Where the average daily volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS "D" is the City's target LOS for roadway segments within Community Development areas, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS "D" or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this assessment, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. As the LOS threshold for the study area intersections is LOS "D", LOS "D" has also been utilized as the minimum LOS criteria for roadway segments for the purposes of this analysis.

As noted in Section 2.3 *Roadway Segment Capacity Analysis Methodology*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis have been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

5.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no traffic signals anticipated to meet peak hour volume based traffic signal warrants with the addition of Project traffic (see Appendix 5.2).

5.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-210 Freeway and Alder Avenue interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-210 Freeway mainline. Queuing analysis findings are presented in Table 5-3 for E+P traffic conditions. It is important to note that off-ramp storage lengths are consistent with the measured distance between the intersection and the freeway mainline.

As shown on Table 5-3, consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95thpercentile traffic flows for E+P traffic conditions. Worksheets for E+P traffic conditions off-ramp queuing analysis are provided in Appendix 5.3.

5.7 BASIC FREEWAY SEGMENT ANALYSIS

E+P mainline directional volumes for the AM and PM peak hours are shown on Exhibit 5-3. The SR-210 Freeway segments analyzed for E+P traffic conditions are shown in Table 5-4, which indicates that the addition of Project traffic is not anticipated to result in any freeway segment LOS deficiencies. E+P basic freeway segment analysis worksheets are provided in Appendix 5.4.

5.8 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for E+P traffic conditions and the results of this analysis are presented in Table 5-5. As shown in Table 5-5, the addition of Project traffic is not anticipated to result in any freeway ramp merge and diverge junction LOS deficiencies.

E+P freeway ramp junction operations analysis worksheets are provided in Appendix 5.5.

EXHIBIT 5-3: E+P FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

N

Table 5-3

Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2015)				E+P			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
SR-210 WB Off-Ramp / Alder Av.	WBL	1,445	168	180	Yes	Yes	193	212	Yes	Yes
	WBT/R	430	50	73	Yes	Yes	52	69	Yes	Yes
SR-210 EB Off-Ramp / Alder Av.	EBL/T	1,455	178	172	Yes	Yes	204	168	Yes	Yes
	EBR	430	126	130	Yes	Yes	126	137	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 5-4

Basic Freeway Segment Analysis for E+P Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2015)				E+P			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-210	WB	West of Alder Av.	3	26.2	29.0	D	D	26.5	29.2	D	D
		East of Alder Av.	3	23.9	26.1	C	D	24.2	26.4	C	D
	EB	West of Alder Av.	3	28.7	28.7	D	D	29.0	29.0	D	D
		East of Alder Av.	3	26.6	27.7	D	D	26.9	27.9	D	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 5-5

Freeway Ramp Junction Merge/Diverge Analysis for E+P Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				E+P			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
SR-210 Freeway	WB	On-Ramp at Alder Av.	3	29.2	D	31.2	D	29.5	D	31.5	D
		Off-Ramp at Alder Av.	3	29.1	D	30.6	D	29.4	D	30.9	D
	EB	Off-Ramp at Alder Av.	3	32.6	D	32.7	D	32.9	D	32.9	D
		On-Ramp at Alder Av.	3	28.6	D	29.6	D	28.9	D	29.8	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

5.9 RECOMMENDED IMPROVEMENTS

5.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

No improvement strategies have been recommended as there are no intersections that are anticipated to operate at an unacceptable LOS under E+P conditions.

5.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As shown on Table 5-6, the following roadway segment is anticipated to operate at acceptable LOS with the future planned improvement:

ID	Roadway Segment Location
3	Alder Av., South of Renaissance Pkwy.

With the implementation of the future planned improvements, the roadway segment of Alder Avenue, south of Renaissance Parkway is anticipated to operate at acceptable LOS.

5.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

No improvement strategies have been recommended as there are no freeway mainline segments or ramp junctions of the SR-210 Freeway that were analyzed for this study that are anticipated to operate at an unacceptable LOS under E+P conditions.

Table 5-6

E+P Conditions
Roadway Segment Volume/Capacity Analysis With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	E+P	V/C	LOS	Acceptable LOS
3	Alder Av.[2]	South of Renaissance Pkwy.	**4D**	33,000	19,375	0.59	A	D

4D = Improvement

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As such, the roadway segment is anticipated to operate at acceptable LOS with the future planned improvement.

6 EAP (2019) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for EAP (2019) conditions and the resulting intersection operations, roadway segment capacity, traffic signal warrant, and freeway mainline operations analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP (2019) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the Project driveways and those facilities assumed to be in place prior to or constructed by the Project to provide site access are also assumed to be in place for EAP (2019) conditions.

6.2 EAP (2019) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% and the addition of Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAP (2019) traffic conditions are shown on Exhibit 6-1.

6.3 INTERSECTION OPERATIONS ANALYSIS

EAP (2019) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA.

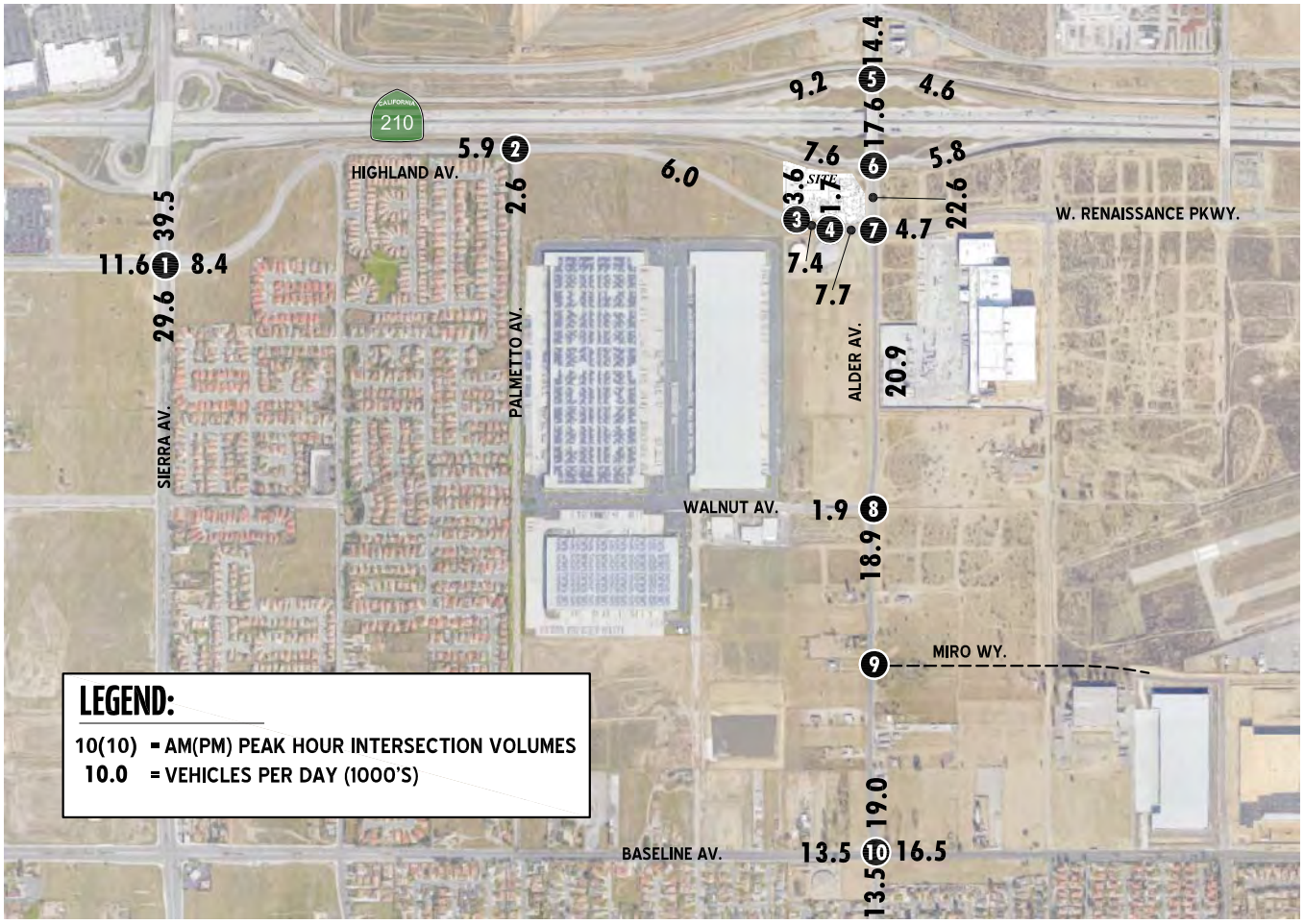
All study area intersections are anticipated to continue to operate at acceptable levels of service under EAP (2019) conditions. Consistent with Table 6-1, a summary of the peak hour intersection LOS for EAP (2019) conditions are shown on Exhibit 6-2.

The intersection operations analysis worksheets for EAP (2019) traffic conditions are included in Appendix 6.1 of this TIA.

6.4 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 6-2 provides a summary of the EAP (2019) conditions roadway segment capacity analysis based on the applicable roadway segment capacities, by jurisdiction. As shown on Table 6-2, there are no anticipated additional roadway segment capacity deficiencies, in addition to those previously identified for Existing traffic conditions.

EXHIBIT 6-1: EAP (2019) TRAFFIC VOLUMES



1 Sierra Av. & Highland Av.	2 Palmetto Av. & Renaissance Pkwy.	3 Driveway 1 & Renaissance Pkwy.	4 Driveway 2 & Renaissance Pkwy.	5 Alder Av. & SR-210 WB Ramps
324(195) 1007(897) 122(197) → 236(194) ← 266(70) ← 27(21)	← 219(148) ← 58(55)	20(18) 144(126) → 57(50) ← 243(182)	41(36) → 102(90) ← 259(196)	299(329) 167(294) → 69(84) ← 1(6) ← 276(270)
336(378) 218(141) 226(76) → 289(56) 909(1258) 26(33) ←	258(210) 53(42) → 115(58) 55(46) ←	68(60) 234(198) →	378(324) →	377(388) 348(430) ←

6 Alder Av. & SR-210 EB Ramps	7 Alder Av. & Renaissance Pkwy.	8 Alder Av. & Walnut Av.	9 Alder Av. & Miro Wy.	10 Alder Av. & Baseline Av.
399(432) 44(132) →	133(153) 617(614) 16(22) → 30(36) ← 104(65) ← 70(54)	55(32) 752(706) 9(0) → 13(11) ← 0(0) ← 1(2)	Intersection Does Not Exist	96(99) 392(418) 227(218) → 279(231) ← 320(321) ← 44(38)
197(236) 3(3) 368(357) → 528(584) 262(316) ←	159(134) 89(119) 129(71) → 124(68) 601(730) 43(70) ←	13(97) 0(0) 2(15) → 2(4) 742(760) 5(1) ←		84(70) 478(459) 69(61) → 141(54) 393(461) 69(34) ←

EXHIBIT 6-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EAP (2019) CONDITIONS

LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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URBAN CROSSROADS

Table 6-1

Intersection Analysis for EAP (2019) Conditions

#	Intersection	Traffic Control[2]	Existing (2015)				EAP (2019)			
			Delay (secs.)[1]		LOS		Delay (secs.)[1]		LOS	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	TS	46.3	28.3	D	C	52.9	31.2	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	13.5	11.4	B	B	19.0	13.7	C	B
3	Driveway 1 / Renaissance Pkwy.	**TS**	Does Not Exist				23.1	14.3	C	B
4	Driveway 2 / Renaissance Pkwy.	**CSS**	Does Not Exist				8.8	8.7	A	A
5	Alder Av. / SR-210 Westbound Ramps	TS	18.0	15.4	B	B	22.4	21.9	C	C
6	Alder Av. / SR-210 Eastbound Ramps	TS	13.0	17.5	B	B	14.0	18.5	B	B
7	Alder Av. / Renaissance Pkwy.	TS	24.3	18.2	C	B	36.6	25.6	D	C
8	Alder Av. / Walnut Av.	TS	27.9	25.6	C	C	30.0	29.7	C	C
9	Alder Av. / Miro Wy.		Does Not Exist				Does Not Exist			
10	Alder Av. / Baseline Av.	TS	45.9	45.3	D	D	52.7	53.1	D	D

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

Table 6-2

EAP (2019) Conditions
Roadway Segment Volume/Capacity Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing (2015)	V/C	LOS	EAP (2019)	V/C	LOS	Acceptable LOS
1	Renaissance Pkwy.	West of Alder Av.	4D	33,000	3,743	0.11	A	7,736	0.23	A	D
2	Alder Av.	North of Renaissance Pkwy.	4D	33,000	18,976	0.58	A	22,592	0.68	B	D
3		South of Renaissance Pkwy.[2]	2U	18,000	18,007	**1.00**	**F**	20,859	**1.16**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Where the average daily volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS "D" is the City's target LOS for roadway segments within Community Development areas, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS "D" or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this assessment, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. As the LOS threshold for the study area intersections is LOS "D", LOS "D" has also been utilized as the minimum LOS criteria for roadway segments for the purposes of this analysis.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

No study area intersections are anticipated to meet traffic signal warrants for EAP (2019) traffic conditions (see Appendix 6.2).

6.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-210 Freeway at the Alder Avenue interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-210 Freeway mainline. Queuing analysis findings are presented in Table 6-3 EAP (2019) traffic conditions. It is important to note that off-ramp storage lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 6-3, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAP (2019) traffic conditions.

Worksheets for EAP (2019) conditions off-ramp queuing analysis are provided in Appendix 6.3.

6.7 BASIC FREEWAY SEGMENT ANALYSIS

EAP (2019) mainline directional volumes for the AM and PM peak hours are shown on Exhibit 6-3. The SR-210 Freeway segments analyzed for EAP (2016) traffic conditions are shown in Table 6-4, which indicates that segments of the SR-210 analyzed for this study are anticipated to operate at acceptable LOS (i.e., LOS D or better) during the peak hours under EAP (2019) conditions. EAP (2019) basic freeway segment analysis worksheets are provided in Appendix 6.4.

6.8 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for EAP (2019) traffic conditions and the results of this analysis are presented in Table 6-5. As shown in Table 6-5, all of the SR-210 ramp merge and diverge areas analyzed for this study are anticipated to operate at acceptable LOS (i.e., LOS D or better).

EAP (2019) freeway ramp junction operations analysis worksheets are provided in Appendix 6.5.

6.9 RECOMMENDED IMPROVEMENTS

6.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

No improvement strategies have been recommended as there are no intersections that are anticipated to operate at an unacceptable LOS under EAP (2019) conditions.

EXHIBIT 6-3: EAP (2019) FREEWAY MAINLINE VOLUMES

LEGEND:

100/200 = AM/PM PEAK HOUR VOLUMES

N

Table 6-3

Peak Hour Freeway Off-Ramp Queuing Summary for EAP (2019) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2015)				EAP (2019)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
SR-210 WB Off-Ramp / Alder Av.	WBL	1,445	168	180	Yes	Yes	223	195	Yes	Yes
	WBT/R	430	50	73	Yes	Yes	55	68	Yes	Yes
SR-210 EB Off-Ramp / Alder Av.	EBL/T	1,455	178	172	Yes	Yes	197	181	Yes	Yes
	EBR	430	126	130	Yes	Yes	163	146	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 6-4

Basic Freeway Segment Analysis for EAP (2019) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2015)				EAP (2019)			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-210	WB	West of Alder Av.	3	26.2	29.0	D	D	29.6	33.0	D	D
		East of Alder Av.	3	23.9	26.1	C	D	26.8	29.5	D	D
	EB	West of Alder Av.	3	33.3	**36.2**	D	**E**	**38.8**	**42.7**	**E**	**E**
		East of Alder Av.	3	26.6	27.7	D	D	30.1	31.4	D	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 6-5

Freeway Ramp Junction Merge/Diverge Analysis for EAP (2019) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				EAP (2019)			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
SR-210 Freeway	WB	On-Ramp at Alder Av.	3	29.2	D	31.2	D	31.6	D	33.8	D
		Off-Ramp at Alder Av.	3	29.1	D	30.6	D	31.1	D	32.7	D
	EB	Off-Ramp at Alder Av.	3	32.6	D	32.7	D	34.7	D	34.7	D
		On-Ramp at Alder Av.	3	28.6	D	29.6	D	31.0	D	32.0	E

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

6.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As shown on Table 6-6, the following roadway segment is anticipated to operate at acceptable LOS with the future planned improvement:

ID	Roadway Segment Location
3	Alder Av., South of Renaissance Pkwy.

With the implementation of the future planned improvements, the roadway segment of Alder Avenue, south of Renaissance Parkway is anticipated to operate at acceptable LOS.

6.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

No improvement strategies have been recommended as there are no freeway mainline segments or ramp junctions of the SR-210 Freeway that were analyzed for this study that are anticipated to operate at an unacceptable LOS under EAP (2019) conditions.

Table 6-6

EAP (2019) Conditions
Roadway Segment Volume/Capacity Analysis With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	EAP (2019)	V/C	LOS	Acceptable LOS
3	Alder Av.[2]	South of Renaissance Pkwy.	**4D**	33,000	20,859	0.63	B	D

4D = Improvement

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As such, the roadway segment is anticipated to operate at acceptable LOS with the future planned improvement.

7 EAPC (2019) TRAFFIC CONDITIONS

This section discusses the traffic forecasts EAPC (2019) conditions and the resulting intersection operations, roadway segment capacity, traffic signal warrant, and freeway mainline operations analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2019) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC (2019) (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- Project driveways and those facilities assumed to be in place prior to or constructed by the Project to provide site access are also assumed to be in place for EAPC (2019) conditions.

7.2 EAPC (2019) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% in conjunction with the addition of cumulative project development and the addition of Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAPC (2019) traffic conditions are shown on Exhibit 7-1.

7.3 INTERSECTION OPERATIONS ANALYSIS

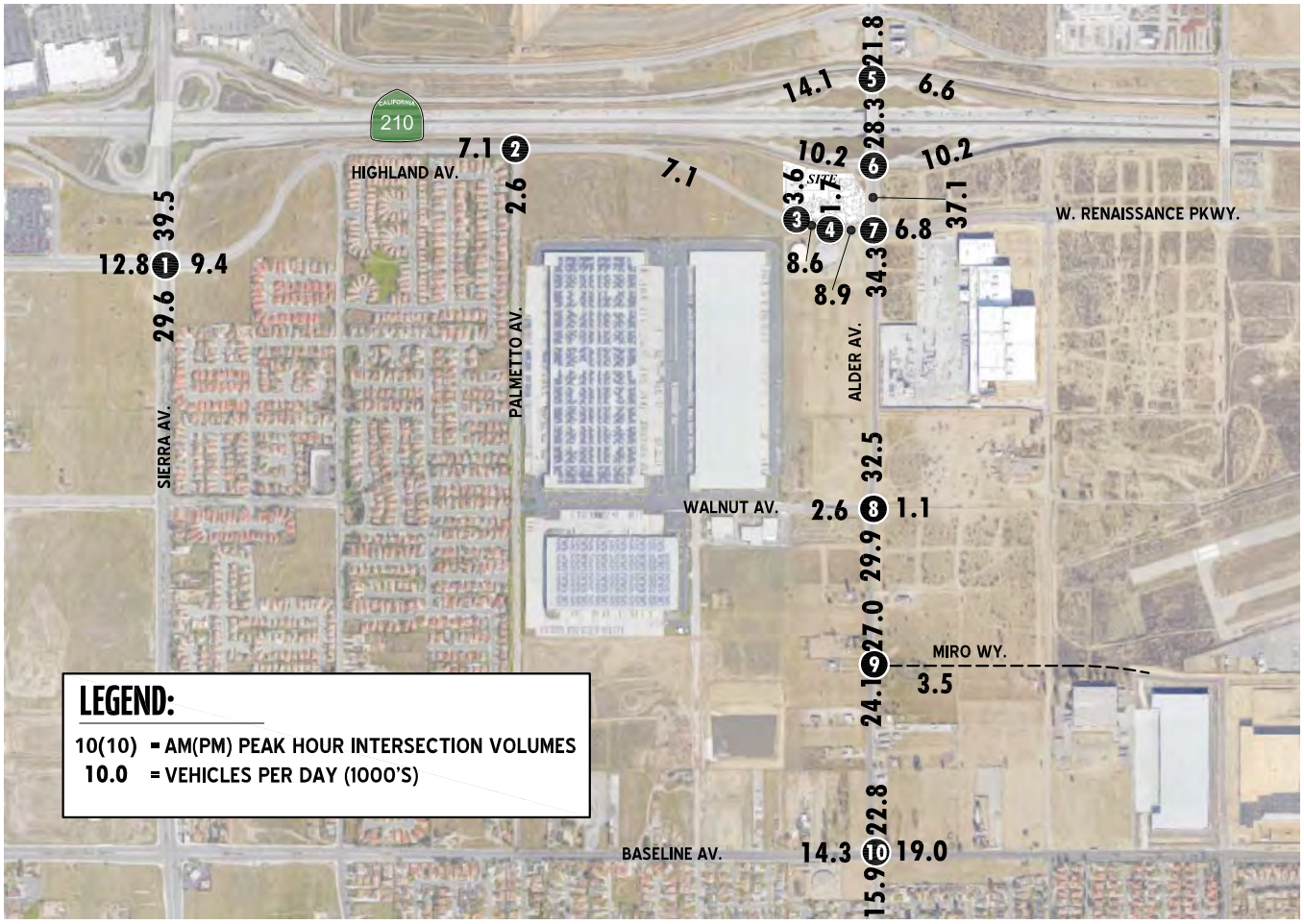
EAPC (2019) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 7-1 for EAPC (2019) conditions.

As shown on Table 7-1 the following study area intersections are anticipated to operate at unacceptable levels of service under EAPC (2019) conditions:

ID	Intersection Location
7	Alder Av. / Renaissance Pkwy. – LOS F AM peak hour only
8	Alder Av. / Walnut Av. – LOS F AM and PM peak hours
9	Alder Av. / Miro Wy. – LOS E AM and PM peak hours
10	Alder Av. / Baseline Av. – LOS E AM and PM peak hours

Consistent with Table 7-1, a summary of the peak hour intersection LOS for EAPC (2019) conditions are shown on Exhibit 7-2. The intersection operations analysis worksheets for EAPC (2019) traffic conditions are included in Appendix 7.1 of this TIA.

EXHIBIT 7-1: EAPC (2019) TRAFFIC VOLUMES



1 Sierra Av. & Highland Av.	2 Palmetto Av. & Renaissance Pkwy.	3 Driveway 1 & Renaissance Pkwy.	4 Driveway 2 & Renaissance Pkwy.	5 Alder Av. & SR-210 WB Ramps
324(195) 1007(897) 122(197) → 236(194) ← 286(147) ← 27(21)	← 239(225) ← 58(55)	20(18) 144(126) → 57(50) ← 263(259)	41(36) → 102(90) ← 279(273)	328(441) 244(587) → 169(118) ← 1(6) ← 562(369)
336(378) → 294(168) → 226(76) → 289(56) 909(1258) 26(33)	334(237) → 53(42) → 115(58) 55(46)	68(60) → 310(225) →	454(351) →	506(709) 654(639)
6 Alder Av. & SR-210 EB Ramps	**7 Alder Av. & Renaissance Pkwy.**	**8 Alder Av. & Walnut Av.**	**9 Alder Av. & Miro Wy.**	**10 Alder Av. & Baseline Av.**
712(708) 75(248) →	148(212) 1027(926) 170(88) → 50(75) ← 105(67) ← 121(75)	76(39) 1217(982) 151(45) → 16(22) ← 0(0) ← 7(20)	880(895) 346(123) → 68(141) ← 3(13)	98(104) 428(548) 317(257) → 331(327) ← 334(361) ← 51(62)
308(274) → 3(3) → 796(518) → 856(1076) 364(609)	217(154) → 99(121) → 137(76) → 128(84) 907(1455) 55(120)	27(150) → 0(0) → 2(15) → 2(4) 1051(1386) 5(1)	950(1008) 16(14)	95(74) → 515(475) → 69(61) → 141(54) 536(509) 83(40)

EXHIBIT 7-2: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR EAPC (2019) CONDITIONS

LEGEND:

- = AM PEAK HOUR ACCEPTABLE LOS
- = AM PEAK HOUR DEFICIENT LOS
- = PM PEAK HOUR ACCEPTABLE LOS
- = PM PEAK HOUR DEFICIENT LOS
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

N

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Table 7-1

Intersection Analysis for EAPC (2019) Conditions

#	Intersection	Traffic Control[2]	EAPC (2019) Delay (secs.)[1] AM	EAPC (2019) Delay (secs.)[1] PM	EAPC (2019) LOS AM	EAPC (2019) LOS PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	TS	53.7	32.1	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	23.1	15.6	C	C
3	Driveway 1 / Renaissance Pkwy.	**TS**	24.2	17.5	C	B
4	Driveway 2 / Renaissance Pkwy.	**CSS**	8.8	8.8	A	A
5	Alder Av. / SR-210 Westbound Ramps	TS	48.3	52.1	D	D
6	Alder Av. / SR-210 Eastbound Ramps	TS	24.7	29.4	C	C
7	Alder Av. / Renaissance Pkwy.	TS	**113.3**	37.1	**F**	D
8	Alder Av. / Walnut Av.	TS	**143.4**	**>200.0**	**F**	**F**
9	Alder Av. / Miro Wy.	**CSS**	**44.1**	**44.8**	**E**	**E**
10	Alder Av. / Baseline Av.	TS	**67.4**	**65.9**	**E**	**E**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

7.4 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities utilized for the purposes of this analysis are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 7-2 provides a summary of the EAPC (2019) conditions roadway segment capacity analysis based on the applicable roadway segment capacities, by jurisdiction. As shown on Table 7-2, the following roadway segment is anticipated to operate at an unacceptable LOS (i.e., LOS E or worse), in addition to those previously identified under Existing conditions:

ID	Roadway Segment Location	Jurisdiction
2	Alder Av. – North of Renaissance Pkwy.	City of Rialto

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

No additional study area intersections are anticipated to meet traffic signal warrants for EAPC (2019) traffic conditions (see Appendix 7.2).

7.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-210 Freeway at the Alder Avenue interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-210 Freeway mainline. Queuing analysis findings are presented in Table 7-3 for EAPC (2019) traffic conditions. It is important to note that off-ramp storage lengths are consistent with the measured distance between the intersection and the freeway mainline. Worksheets EAPC (2019) conditions off-ramp queuing analysis are provided in Appendix 7.3.

7.7 BASIC FREEWAY SEGMENT ANALYSIS

EAPC (2019) mainline directional volumes for the AM and PM peak hours are shown on Exhibit 7-3. The SR-210 Freeway segments analyzed for EAPC (2016) traffic conditions are shown in Table 7-4, which indicates that the following segments of the SR-210 analyzed for this study are anticipated to operate at unacceptable LOS (i.e., LOS E or worse) during the peak hours under EAPC (2019) conditions:

ID	Freeway Mainline Segments
1	SR-210 Freeway Westbound, West of Alder Av. – LOS E PM peak hour only
3	SR-210 Freeway Eastbound, West of Alder Av. – LOS E AM and PM peak hours
4	SR-210 Freeway Eastbound, East of Alder Av. – LOS E PM peak hour only

EAPC (2019) basic freeway segment analysis worksheets are provided in Appendix 7.4.

EXHIBIT 7-3: EAPC (2019) FREEWAY MAINLINE VOLUMES

LEGEND:

← 100/200 = AM/PM PEAK HOUR VOLUMES

N

Table 7-2

EAPC (2019) Conditions
Roadway Segment Volume/Capacity Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	EAPC (2019)	V/C	LOS	Acceptable LOS
1	Renaissance Pkwy.	West of Alder Av.	4D	33,000	8,918	0.27	A	D
2	Alder Av.	North of Renaissance Pkwy.[2]	4D	33,000	37,048	**1.12**	**F**	D
3		South of Renaissance Pkwy.[2]	2U	18,000	34,277	**1.90**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Where the average daily volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS "D" is the City's target LOS for roadway segments within Community Development areas, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS "D" or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this assessment, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. As the LOS threshold for the study area intersections is LOS "D", LOS "D" has also been utilized as the minimum LOS criteria for roadway segments for the purposes of this analysis.

Table 7-3

Peak Hour Freeway Off-Ramp Queuing Summary for EAPC (2019) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	EAPC (2019) 95th Percentile Queue (Feet)		EAPC (2019) Acceptable?[1]	
			AM Peak	PM Peak	AM	PM
SR-210 WB Off-Ramp / Alder Av.	WBL	1,445	1,203	525	Yes	Yes
	WBT/R	430	**695**	266	**No**	Yes
SR-210 EB Off-Ramp / Alder Av.	EBL/T	1,455	1,445	1,392	Yes	Yes
	EBR	430	**545**	**651**	**No**	**No**

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-210 Freeway mainline.

Table 7-4

Basic Freeway Segment Analysis for EAPC (2019) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	EAPC (2019)			
				Density[2]		LOS	
				AM	PM	AM	PM
SR-210	WB	West of Alder Av.	3	31.4	**39.8**	D	**E**
		East of Alder Av.	3	31.2	31.1	D	D
	EB	West of Alder Av.	3	**40.9**	**35.6**	**E**	**E**
		East of Alder Av.	3	31.8	**36.7**	D	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

7.8 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for EAPC (2019) traffic conditions and the results of this analysis are presented in Table 7-5. As shown in Table 7-5, the following SR-210 ramp merge and diverge areas analyzed for this study are anticipated to operate at unacceptable LOS (i.e., LOS E or worse):

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-210 Freeway – Westbound, On-Ramp at Alder Av. – LOS E PM peak hour only
3	SR-210 Freeway – Eastbound, Off-Ramp at Alder Av. – LOS E AM and PM peak hours
4	SR-210 Freeway – Eastbound, On-Ramp at Alder Av. – LOS E PM peak hour only

EAPC (2019) freeway ramp junction operations analysis worksheets are provided in Appendix 7.5.

7.9 RECOMMENDED IMPROVEMENTS

7.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient to reduce each location's peak hour delay and improve the associated LOS grade to acceptable levels. The effectiveness of these recommended improvements to address EAPC (2019) LOS deficiencies are presented in Table 7-6. The intersection operations analysis worksheets for EAPC (2019) traffic conditions, with improvements, are provided in Appendix 7.6.

7.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT ROADWAY SEGMENTS

Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. However, as shown on Table 7-7, the following roadway segment is anticipated to continue to operate at an unacceptable LOS with the future planned improvement:

ID	Roadway Segment Location
3	Alder Av., South of Renaissance Pkwy.

Table 7-5

Freeway Ramp Junction Merge/Diverge Analysis for EAPC (2019) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	EAPC (2019)			
				AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS
SR-210 Freeway	WB	On-Ramp at Alder Av.	3	33.4	D	**38.8**	**E**
		Off-Ramp at Alder Av.	3	34.4	D	33.8	D
	EB	Off-Ramp at Alder Av.	3	**38.8**	**E**	**36.2**	**E**
		On-Ramp at Alder Av.	3	32.5	D	**36.3**	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 7-6

Intersection Analysis for EAPC (2019) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
7	Alder Av. / Renaissance Pkwy.[4]																	
	- Without Improvements	TS	1	2	d	1	1	1	1	2	0	1	2	0	**113.3**	37.1	**F**	D
	- With Improvements	TS	1	2	d	1	**2**	**0**	1	2	0	1	2	0	51.9	32.4	D	C
8	Alder Av. / Walnut Av.[4]																	
	- Without Improvements	TS	1	1	0	0	1	1	1	1	0	0	1	0	**143.4**	**>200.0**	**F**	**F**
	- With Improvements	TS	1	1	0	**1**	1	**0**	1	1	0	0	1	0	24.4	32.0	C	C
9	Alder Av. / Miro Wy.[5]																	
	- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	0	0	**44.1**	**44.8**	**E**	**E**
	- With Improvements	**TS**	0	1	0	**1**	1	0	0	1	0	0	0	0	18.7	19.6	C	B
10	Alder Av. / Baseline Av.[4]																	
	- Without Improvements	TS	1	1	0	1	1	1	1	1	d	1	1	0	**67.4**	**65.9**	**E**	**E**
	- With Improvements	TS	1	1	0	1	1	1	1	1	d	1	**2**	0	53.7	48.2	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal

[4] Alder Avenue is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF). DIF fees are being collected incrementally as development in the area is approved.

[5] Two previously approved projects have already been conditioned to contribute to the future signalization of this intersection on a fair share basis. The Project will also contribute on a fair-share basis to this recommended improvement.

Table 7-7

EAPC (2019) Conditions
Roadway Segment Volume/Capacity Analysis With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	EAPC (2019)	V/C	LOS	Acceptable LOS
2	Alder Av.	North of Renaissance Pkwy.	**5D**	41,250	37,048	0.90	D	D
3		South of Renaissance Pkwy.	**4D**	33,000	34,277	**1.04**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

4D = Improvement

[1] These maximum roadway capacities have been extracted from the following source: City of Rialto Traffic Impact Analysis Guidelines and Requirements (Exhibit D) for each road facility type. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. By using the LOS "E" capacity for each roadway facility type, volume-to-capacity (v/c) values between 0.00-0.60 will represent LOS "A", 0.61-0.70 will represent LOS "B", 0.71-0.80 will represent LOS "C", 0.81-0.90 will represent LOS "D", 0.91-1.00 will represent LOS "E", and v/c values greater than 1.00 will represent LOS "F" operations. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

[2] Although not necessary for peak hour intersection operations, additional roadway capacity needed to address the anticipated roadway segment deficiency. It is recommended that a third northbound through lane be striped to serve as a right-turn (trap) lane at the SR-210 Freeway Eastbound Ramps. This improvement can be accommodated through restriping and physical widening of the roadway does not appear to be necessary.

[3] Where the average daily volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS "D" is the City's target LOS for roadway segments within Community Development areas, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS "D" or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this assessment, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes. As the LOS threshold for the study area intersections is LOS "D", LOS "D" has also been utilized as the minimum LOS criteria for roadway segments for the purposes of this analysis.

[4] Alder Av. is designated as a Major Arterial (four-lane divided roadway) on the Renaissance Specific Plan Vehicular Circulation Plan. Full improvement of Alder Avenue to its ultimate configuration is a $4.9 million project included in the City-wide Development Impact Fee (DIF) program. As such, the roadway segment is anticipated to operate at acceptable LOS with the future planned improvement.

7.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

The 95th percentile queues for EAPC traffic conditions, with improvements, indicates potential queuing for the westbound shared through-right turn lane at the SR-210 Westbound off-ramp at Alder Avenue during the AM peak hour only and the eastbound right turn lane at the SR-210 Eastbound off-ramp during both the AM and PM peak hours. The effectiveness of recommended improvements to address peak hour queuing deficiencies at the SR-210 Freeway and Alder Avenue off-ramps is shown on Table 7-8.

7.9.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Rialto (or other neighboring jurisdictions) on SHS roadway segments. As such, no improvements have been recommended to address the Opening Year Cumulative deficiencies on the SHS.

Table 7-8

Roadway Segment Volume/Capacity Analysis (Florida Method) for EAPC (2019) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1,2]	EAPC (2019)			Acceptable LOS
					Peak Hour Vol	V/C	LOS	
3	Alder Av.	South of Renaissance Pkwy.	FL 4D	3,580	2,963	0.83	C	D

[1] These maximum roadway capacities have been extracted from the following source: 2013 Quality/Level of Service Handbook from the State of Florida Department of Transportation for two-way undivided lanes. These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "D" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic. LOS A, B, and E do not exist for this classification of roadway.

[2] For two-way divided lanes with an exclusive left turn lane, an adjustment factor of +5% must be applied to the LOS capacity. Source: Table 4 of the 2013 Quality/Level of Service Handbook from the State of Florida Department of Transportation.

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Appendix D2:
Traffic Impact Supplemental Analysis

Prepared by Urban Crossroads, Inc.

September 13, 2016

URBAN CROSSROADS

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www.urbanXroads.com

September 13, 2016

Mr. Steve Whyld
Sater Bros
4300 Edison Avenue
Chino, CA 91710

SUBJECT: COMMERCIAL DEVELOPMENT SUPPLEMENTAL ASSESSMENT

Dear Mr. Steve Whyld:

The following Supplemental Assessment has been prepared for the proposed Commercial Development (referred to as "Project") located on the northwest corner of Alder Avenue and Renaissance Parkway in the City of Rialto. The purpose of this supplemental assessment is to compare the potential impacts and recommended improvements identified in the Commercial Development Traffic Impact Analysis (prepared by Urban Crossroads, Inc., dated September 6, 2016, referred to as "2016 Traffic Study") to the analysis results from the Renaissance Specific Plan (RSP) Draft Environmental Impact Report (DEIR) (prepared by Michael Brandman Associates, dated May 3, 2010, referred to as "2010 Specific Plan DEIR"). The proposed Project site is located within Planning Area 11 of the Renaissance Specific Plan and is currently designated for Freeway Commercial use.

SUMMARY OF FINDINGS

The RSP EIR required the following mitigation measure:

T-1: The City shall ensure that RSP generated traffic will not result in inadequate LOS for RSP project intersections. Prior to any discretionary approval of development pursuant to the RSP, the City Traffic Engineer shall use the TIA (LSA 2009) to evaluate which portion of the above-listed improvements are attributable to the proposed development, and appropriate based upon the progress of cumulative development. Based upon this evaluation, the proposed development shall be required, to either, a) construct the applicable improvements; or b) pay appropriate fair-share fees for the development's contribution to a cumulative impact, as determined necessary to meet acceptable levels of service pursuant to the applicable jurisdiction.

The 2016 Traffic Study prepared by Urban Crossroads for the Commercial Development evaluates a site-specific development proposal for Planning Area 11 of the RSP. As concluded by the 2016 Traffic Study, the project would not directly result in a LOS failure at any RSP project intersections. The Project is anticipated to generate 5,262 total trip-ends per day whereas the 2010 Specific Plan DEIR assumed that Planning Area 11 would generate 1,639 trip-ends per day. Thus, the Project increases the daily traffic as previously evaluated in the 2010 Specific Plan DEIR; however, compared to the conclusions of the 2010 Specific Plan DEIR, no new traffic impacts would be created by the Project and

none of the significant impacts identified in the 2010 Specific Plan DEIR would be worsened by the addition of Project traffic. Consistent with the findings of the 2010 Specific Plan DEIR, the Project's traffic would contribute to cumulative impacts at four study area intersections, and mitigate for those impacts by making fair-share monetary contributions for the improvements necessary to maintain an acceptable LOS at these locations. The project's fee payments as specified in TIA Table I-5 would be used as follows.

- ***Alder Avenue / I-210 Westbound Ramps (#5)*** – A portion of the improvements needed are included in the Renaissance Fee Program, to which the Project is required to contribute towards, however, the remainder would be subject to fair share, if applicable.
- ***Alder Avenue / I-210 Eastbound Ramps (#6)*** – Restriping to provide a 2nd northbound right turn lane and the 2nd eastbound right turn lane are included in the Renaissance Fee Program, which with the Project is required to contribute towards. Although the recommended restriping to provide a 2nd southbound left turn and a 2nd eastbound left turn lanes are not in an established fee program, the Project would contribute fair share towards implementing the improvements when growth in the area dictates the needs for these improvements.
- ***Alder Avenue / Renaissance Parkway (#7)*** – Restriping to provide a 2nd southbound through lane is not included in the Renaissance Fee Program. However, costs associated with restriping are anticipated to be nominal.
- ***Alder Avenue / Walnut Avenue (#8)*** – Restriping to provide a southbound left turn lane and shared through-right lane is not included in the Renaissance Fee Program. However, costs associated with restriping are anticipated to be nominal.
- ***Alder Avenue / Miro Way (#9)*** – Installing a traffic signal and adding dual southbound left turn lanes are partially included in the Renaissance Fee Program, to which the Project is required to contribute towards. However, costs associated with restriping are anticipated to be nominal. The Project would contribute fair share towards implementing the improvements when growth in the area dictates the needs for these improvements.
- ***Alder Avenue / Baseline Avenue (#10)*** – Adding a 2nd southbound left turn lane and 2nd westbound through lane is partially included in the Renaissance Fee Program, to which the Project is required to contribute towards. However, costs associated with restriping are anticipated to be nominal. The Project would contribute fair share towards implementing the improvements when growth in the area dictates the needs for these improvements.

PROJECT DESCRIPTION

The currently adopted land use for Planning Area 11 of the Renaissance Specific Plan is Freeway Commercial use, with a floor-to-area-ratio (FAR) of 0.25. Consistent with the approved Specific Plan, the Project is proposing to develop commercial retail uses, specifically a 100 room hotel, 4,500 square feet of high turnover sit-down restaurant use, 1,000 square feet of fast food without drive-through use, 5,440 square feet of fast food with drive-through use, and a gas/service station with food mart

and car wash with 16 vehicle fueling positions, on 5.34 acres of the total 10.4 acres of Planning Area 11. No other changes are proposed to the remainder of Planning Area 11.

STUDY AREA

The 2016 Traffic Study intersection analysis locations are a subset of those evaluated in the 2010 Specific Plan DEIR, with the exception of the Project driveways. As such, the Project driveways are not included as part of this evaluation.

TRAFFIC IMPACTS

This section provides a summary and comparison of the analysis results for Existing and Existing plus Ambient Growth plus Project plus Cumulative (EAPC) traffic conditions between the 2010 Specific Plan DEIR and the 2016 Traffic Study.

EXISTING CONDITIONS

As shown in Table 1, the study area intersections were found to operate at acceptable LOS for Existing conditions in both the 2010 Specific Plan DEIR and the 2016 Traffic Study. Similarly, the study area freeway segments were also found to operate at acceptable LOS for Existing conditions in both the 2010 Specific Plan DEIR and the 2016 Traffic Study (see Table 2).

TABLE 1: COMPARISON OF INTERSECTION LOS FOR EXISTING CONDITIONS

#	Intersection	Traffic Control[1]	Existing - SP[2]				Existing - TIA[3]			
			Delay (secs.)		Level of Service		Delay (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy.	TS	25.8	21.2	C	C	46.3	28.3	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	Future Intersection				13.5	11.4	B	B
3	Driveway 1 / Renaissance Pkwy.		Not Applicable				Future Intersection			
4	Driveway 2 / Renaissance Pkwy.		Not Applicable				Future Intersection			
5	Alder Av. / I-210 Westbound Ramps	TS	20.9	17.4	C	B	18.0	15.4	B	B
6	Alder Av. / I-210 Eastbound Ramps	TS	20.9	23.1	C	C	13.0	17.5	B	B
7	Alder Av. / Renaissance Pkwy.	TS	19.6	18.1	B	B	29.7	18.2	C	B
8	Alder Av. / Walnut Av.	TS	5.3	7.2	A	A	27.9	25.6	C	C
9	Alder Av. / Miro Wy.		Not Applicable				Future Intersection			
10	Alder Av. / Baseline Av.	TS	31.3	32.3	C	C	45.9	48.8	D	D

[1] CSS = Cross-street Stop; TS = Traffic Signal

[2] Source: Renaissance Specific Plan Draft Environmental Impact Report (DEIR) and the Renaissance Specific Plan Amendment DEIR

[3] Source: Palmetto Av. & Renaissance Pkwy. Traffic Impact Analysis

TABLE 2: COMPARISON OF FREEWAY MAINLINE LOS FOR EXISTING CONDITIONS

Freeway	Direction	Mainline Segment	Lanes[1]	Existing - SP				Existing - TIA			
				V/C[2]		LOS[3]		Density[4]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-210	WB	West of Alder Av.	3	0.833	0.544	D	C	26.2	29.0	D	D
		East of Alder Av.	3	0.819	0.533	D	C	23.9	26.1	C	D
	EB	West of Alder Av.	3	0.591	0.854	C	D	28.9	28.9	D	D
		East of Alder Av.	3	0.580	0.838	C	D	26.6	27.7	D	D

[1] Number of lanes are in the specified direction and is based on existing conditions.
[2] V/C = Volume to Capacity ratio
[3] LOS = Level of Service
[4] Density is measured by passenger cars per mile per lane (pc/mi/ln).

EAPC CONDITIONS

As shown in Table 3, the intersections of Alder Avenue at Renaissance Parkway and Alder Avenue at Baseline Avenue were found to operate at an unacceptable LOS for EAPC conditions in both the 2010 Specific Plan DEIR and the 2016 Traffic Study. Alder Avenue at Walnut Avenue and Alder Avenue at Miro Way were found to operate at an unacceptable LOS for EAPC conditions in the 2016 Traffic Study; however, the I-210 Freeway Ramps on Alder Avenue were found to operate at an acceptable LOS. In comparison, the I-210 Freeway Ramps were found to operate at an unacceptable LOS for EAPC conditions in the 2010 specific plan DEIR; however, Alder Avenue at Walnut Avenue and Alder Avenue at Miro Way were found to operate at an acceptable LOS for EAPC conditions in the 2010 Specific Plan DEIR. All of the study area freeway segments were found to operate at an unacceptable LOS for EAPC conditions in the 2010 Specific Plan DEIR, consistent with the 2016 Traffic Study with the exception of the westbound segment, east of Alder Avenue, which was found to operate at an acceptable LOS in the 2016 Traffic Study (see Table 4).

TABLE 3: COMPARISON OF INTERSECTION LOS FOR EAPC CONDITIONS

#	Intersection	Traffic Control[1]	EAPC (2020) - SP				EAPC (2019) - TIA			
			V/C		LOS[2]		Delay (secs.)		LOS[2]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Sierra Av. / Highland Av. / Renaissance Pkwy	TS	0.62	0.56	C	C	53.7	32.1	D	C
2	Palmetto Av. / Renaissance Pkwy.	CSS	--	--	C	C	23.1	15.6	C	C
3	Driveway 1 / Renaissance Pkwy.	**TS**	Not Applicable				24.2	17.5	C	B
4	Driveway 2 / Renaissance Pkwy.	**CSS**	Not Applicable				8.8	8.8	A	A
5	Alder Av. / I-210 Westbound Ramps	TS	**1.14**	**1.34**	**F**	**F**	48.3	52.1	D	D
6	Alder Av. / I-210 Eastbound Ramps	TS	**1.04**	**1.20**	**F**	**F**	24.7	29.4	C	C
7	Alder Av. / Renaissance Pkwy.	TS	**1.11**	**1.45**	**F**	**F**	**113.3**	**37.1**	**F**	**D**
8	Alder Av. / Walnut Av.	TS	0.61	0.84	C	D	**143.4**	**>200.0**	**F**	**F**
9	Alder Av. / Miro Wy.	**CSS**	0.68	0.74	B	C	**44.1**	**44.8**	**E**	**E**
10	Alder Av. / Baseline Av.	TS	**1.32**	**1.39**	**F**	**F**	**67.4**	**65.9**	**E**	**E**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[2] LOS = Level of Service

TABLE 4: COMPARISON OF FREEWAY MAINLINE LOS FOR EAPC CONDITIONS

Freeway	Direction	Mainline Segment	Lanes[1]	EAPC (2020) - SP				EAPC (2018) - TIA			
				V/C[2]		LOS[3]		Density[4]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-210	WB	West of Alder Av.	3	**1.021**	0.731	**F**	D	31.4	**39.8**	D	**E**
		East of Alder Av.	3	**0.914**	0.740	**E**	D	31.2	31.1	D	D
	EB	West of Alder Av.	3	0.694	**1.102**	D	**F**	**40.9**	**35.6**	**E**	**E**
		East of Alder Av.	3	0.720	**1.002**	D	**F**	31.8	**36.7**	D	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] V/C = Volume to Capacity ratio

[3] LOS = Level of Service

[4] Density is measured by passenger cars per mile per lane (pc/mi/ln).

RECOMMENDED IMPROVEMENTS

As shown on Table 5, a comparison of the improvements recommended in the 2010 Specific Plan DEIR and the 2016 Traffic Study show that the improvements are generally consistent, with the exception of the following intersections and identified improvements:

- Alder Avenue / I-210 Westbound Ramps – Both the 2016 Traffic Study and 2010 Specific Plan DEIR recommend restriping to provide a 2nd northbound left turn lane, southbound right turn lane, and 2nd westbound left turn lane.
- Alder Avenue / I-210 Eastbound Ramps – Both the 2016 Traffic Study and 2010 Specific Plan DEIR recommend restriping to provide a northbound right turn lane and 2nd eastbound right turn lane. The 2016 Traffic Study additionally recommends restriping to provide a 2nd southbound left turn lane and 2nd eastbound left turn lane.
- Alder Avenue / Renaissance Parkway – Both the 2016 Traffic Study and 2010 Specific Plan DEIR recommend restriping to provide a southbound shared through-right turn lane. The 2010 Specific Plan DEIR additionally recommends converting the westbound right turn lane into a free right turn lane.
- Alder Avenue / Walnut Avenue – The 2016 Traffic Study recommends restriping the southbound approach to provide for a left turn lane and a shared through-right turn lane; however, the 2010 Specific Plan DEIR does not recommend any improvements at all. As noted in Table 6, although not recommended in the SP EIR, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.
- Alder Avenue / Miro Way – The 2016 Traffic Study recommends installing a traffic signal and adding a southbound left turn lane; however, the 2010 Specific Plan DEIR does not recommend any improvements at all. As noted in Table 6, although not recommended in the SP EIR, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.
- Alder Avenue / Baseline Avenue – Both the 2016 Traffic Study and 2010 Specific Plan DEIR recommend adding a westbound through lane; however, the 2010 Specific Plan DEIR additionally recommends adding a northbound through lane and southbound through lane.

TABLE 5: COMPARISON OF RECOMMENDED IMPROVEMENTS

#	Intersection Location	Analysis Scenarios - SP EAPC (2018)	Analysis Scenarios - TIA EAPC (2019)
5	Alder Av. / I-210 Westbound Ramps[1]	Restripe to provide 2nd NB left turn lane Restripe to provide a SB right turn lane Restripe to provide a 2nd WB left turn lane	Same Same Same
6	Alder Av. / I-210 Eastbound Ramps[1]	Restripe to provide a NB right turn lane 2nd EB right turn lane	Same Same Restripe to provide a 2nd SB left turn lane Restripe to provide a 2nd EB left turn lane
7	Alder Av. / Renaissance Pkwy.	Restripe SB right turn lane as a shared through-right turn lane Convert WB right turn lane to a free right turn lane	Same Not Recommended
8	Alder Av. / Walnut Av.	None	Restripe SB approach to provide for a left turn lane and a shared through-right turn lane[2,3]
9	Alder Av. / Miro Wy.	None	Traffic signal[3] SB left turn lane[3]
10	Alder Av. / Baseline Av.	Add a NB through lane Add a SB through lane Add a WB through lane	Not Recommended Not Recommended Same

[1] Although operating at an acceptable LOS, the City of Rialto has requested the addition of this intersection in an effort to calculate fair share contributions towards the future improvements proposed as part of the Specific Plan.

[2] Improvement can be accommodating by restriping existing pavement. Improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto.

[3] Although not recommended in the SP EIR, the improvement is consistent with recommendations from other recent traffic studies prepared within the City of Rialto and is needed to accommodate acceptable peak hour operations.

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
Principal

Charlene So, PE
Senior Transportation Engineer

CEQA Consistency with the Addendum to the Renaissance Specific Plan Final EIR For a 95-Room Hotel

City of Rialto Development Services Department

SWC of Alder Ave. and Interstate 210 Freeway
Rialto, CA

Lead Agency

City of Rialto
Development Service Department
Planning Division
150 S. Palm Avenue
Rialto, CA 92376

Technical assistance provided by:

Lilburn Corporation
1905 Business Center Drive
San Bernardino, CA 92404

June 2026

TABLE OF CONTENTS

SECTION **PAGE NO.**

I. CEQA ENVIRONMENTAL CHECKLIST FORM....1

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED....11

III. ENVIRONMENTAL DETERMINATION....11

IV. EVALUATION OF ENVIRONMENTAL IMPACTS....13
- I. Aesthetics....13
- II. Agriculture and Forestry Resources....14
- III. Air Quality....16
- IV. Biological Resources....21
- V. Cultural Resources....24
- VI. Energy....25
- VII. Geology and Soils....26
- VIII. Greenhouse Gas Emissions....31
- IX. Hazards and Hazardous Materials....33
- X. Hydrology and Water Quality....36
- XI. Land Use and Planning....41
- XII. Mineral Resources....42
- XIII. Noise....43
- XIV. Population and Housing....45
- XV. Public Services....46
- XVI. Recreation....47
- XVII. Transportation/Traffic....48
- XVIII. Tribal Cultural Resources....51
- XIV. Utilities and Service Systems....53
- XX. Wildfire....55
- XXI. Mandatory Findings of Significance....57

V. EARLIER ANALYSES....59

VI. REFERENCES....59

VII. PROJECT-SPECIFIC REFERENCES....59

Table of Contents

PAGE NO.

FIGURES

Figure 1 Regional Location 5
Figure 2 Project Vicinity 6
Figure 3 Site Plan 7

APPENDICES

Appendix A Addendum to the Renaissance Specific Plan Final Environmental Impact Report
Appendix B Trip Generation Comparison Technical Memorandum
Appendix C Preliminary WQMP
Appendix D Preliminary Hydrology Report

I. CEQA ENVIRONMNETAL CHECKLIST FORM

1. Project Title: 95-Room, 4-Story Hotel

2. Lead Agency Name: City of Rialto
Planning Division
150 South Palm Avenue
Rialto, CA 92376

3. Contact Person: Daniel Rosas, Senior Planner
Phone Number: (909)-820-8047

4. Project Location: Southwest Corner of Alder Avenue and the SR-210 Freeway Off-Ramp; APN 0240-191-50

5.A Project Applicant/Owners: Sater Bros.
4300 Edison Ave.
Chino, CA 9170

5.B. Engineer/Representative: Pegasus Architects
4300 Edison Ave.
Chino, CA 9170

6. General Plan Land Use Designations: Renaissance Specific Plan (RSP)

7. Zoning District(s): Freeway Commercial (FC)

8. Description of Project:

The Proposed Project, referred to as Phase 3 of Addendum Analyzed Project, includes the following applications:

- Master Case (MC) No. 2025-0003
  - Conditional Development Permit (CDP) No. 2025-003
  - Precise Plan of Design (PPD) No. 2025-0003
- Environmental Assessment Review (EAR) No. 2025-003

Previously Analyzed Project

The previously Analyzed Project includes:

- Tentative Tract Map No. 19680 (TTM No. 19680). A request to consolidate 3 parcels into one tract map on approximately 5.3 acres.

- A request to allow for the development of one (1) gas station with car wash, two (2) quick service restaurants (QSR) (i.e., fast food restaurant) with drive-thru lanes, one (1) 100-room 4-story hotel, and one (1) high turnover sit-down restaurant. The Project proposes to leave the remainder parcel (16,293 SF) (located south of W. Renaissance Parkway) vacant. Phase I Gas Station and Car Wash were approved (PPD No. 2411)
- CDP No. 781-784: For the Gas Station under Phase 1
- Canopy 2 (Phase 2) on Parcel 2 was approved/developed under CDP2021-0025, PPD2021-0025, and EAR2021-0038

The Project Site as defined in this Consistency Analysis includes all the parcels of the Previously Analyzed Project.

Proposed Changes (Modified Project)

The Applicant proposes to decrease the number of rooms for the hotel on Parcel 3 (Phase 3) from 100 to 95. There are minor changes to the size of the proposed hotel building totaling a 12,927-SF reduction in building area. The parking spaces for Parcel 3 would decrease from 98 to 96. A change in parcel configuration is also proposed.

- PPD No. 2025-0003
- CDP No. 2025-0003

Site Access

Previously Analyzed Project

Regional access to the Project Site would be provided by SR-210 via Alder Avenue (see Figure 1 – Regional Location). From Alder Avenue, the Project Site is accessed via W. Renaissance Parkway (see Figure 2 – Project Vicinity). Driveway 1, the primary access for Parcel 3, would be located near the western portion of the Project Site and would provide full access from W. Renaissance Parkway. Driveway 2 would be located near the east-central portion of the Project Site and would provide right-in/right-out (RIRO) only access from W. Renaissance Parkway.

Proposed Changes

No changes are proposed to site access.

Utility Infrastructure and Off-Site Improvements

Previously Analyzed Project

Specific to the Project Site, the Fontana Water Company serves the area south of SR-210 and west of Linden Avenue. The Proposed Project would connect to existing water lines within Renaissance Parkway in the vicinity of the Renaissance/Alder intersection.

Water and sewer service would be provided by the City of Rialto. The Proposed Project would connect to existing off-site sewer lines that occur in the vicinity of the Renaissance/Alder Avenue intersection. The entire RSP would be connected to an existing sewer line that is located in Cactus Avenue, which extends southerly from Baseline Road in Cactus Avenue, easterly in Valley Boulevard, and southerly in Riverside Drive, and easterly in Santa Ana to the City of Rialto sewage treatment plant.

Proposed Changes

No changes are proposed to utility infrastructure for Parcel 3 (Phase 3) and off-site improvements.

Tentative Parcel Map

Previously Analyzed Project

Parcel	Site Area	Building Area	Parking Required	Parking Proposed	Uses
Parcel 1	50,332 SF	6,506 SF	20	33+16 under canopy	Gas station, carwash, and C-Store (1- story)
Parcel 2	44,159 SF	---	---	---	Canopy and four fuel pumps add'l to approved gas station use
Parcel 3	81,229 SF	63,000 SF	100	98	Hotel (100-rooms) (4-story)
Parcel 4	16,007 SF	1,850 SF	24.67	10	QSR with Drive-Thru (1-story)
Parcel 5 (analyzed; no longer exists)	27,937 SF	4,500 SF	36	36	Full-service restaurant (1-story)
Remainder Parcel	16,293 SF	---	---	---	N/A
Sub-total	228,362 SF	79,446 SF	229	231	
Street Dedication	4,177 SF (1,850 SF + 2,338 SF)				
Total	232,550 SF (5.339 acre)				

Proposed Changes (in italics)

Parcel	Site Area	Building Area	Parking Required	Parking Proposed	Uses
Parcel 3	*98,921*	*50,073 SF*	*95*	*95 + 8 EV*	*Hotel (95-rooms) (4-story)*
Parcel 4	*0*	*0*	*0*	*0*	*TBD*

Parcel 5 under Phase 5 of the Previously Analyzed Project was eliminated prior to filing of the Application for the Modified Project. This area has been integrated into the other parcels; Parcels 3 and 4. There would be no changes to the proposed areas of disturbance. The area of disturbance would remain confined to the Project Site.

Architecture and Signage

Previously Analyzed Project

The Proposed Project's final architecture, walls, and fencing design would be required to be consistent with the Design Guidelines as set forth in the RSP document. City monument signs would be provided near the intersection of W. Renaissance Parkway and Alder Avenue and on the south side of W. Renaissance Parkway. A monument sign would be provided in the southwestern portion of the Project Site on the south side of the proposed restaurant and in the southeastern portion of the Project Site near the gas station.

Proposed Changes

No changes are proposed to the architectural style and the materials to be used. No changes are proposed to the location of the monument signs.

Lighting

Previously Analyzed Project

The Proposed Project's lighting features would be designed in accordance with the Design Guidelines as set forth in the RSP document. All streetlights and other outdoor lighting would be submitted to the City Development Services Department for plan check and would be required to comply with the relevant requirements of the City's General Plan and Development Code and current building codes. The RSP requires the preparation of a detailed lighting plan with the submittal of development applications and both the RSP and the City's zoning ordinance limits light source intensities adjacent to residential and non-residential uses.

Proposed Changes

No changes are proposed to lighting, which will be designed to City standards.

Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Site Plan

9. Scope of Environmental Analysis

The Modified Project differs from the Previously Analyzed Project and thus is subject to a CEQA Consistency Analysis to determine if any of its environmental impacts differ significantly from those previously analyzed in the Addendum to the Renaissance Specific Plan Final Environmental Impact Report (RSP Final EIR). See Appendix A for the Addendum to the RSP Final EIR. Modifications to the Site Plan include the decrease of the number of rooms for the hotel on Parcel 3 (Phase 3) from 100 to 95. There would also be a 12,927-SF reduction in hotel building area. The proposed changes will reduce traffic, air pollutants, greenhouse gas emissions, and noise generated by the facility.

The City of Rialto prepared this Initial Study (IS) Checklist as suggested by State California Environmental Quality Act (CEQA) Guidelines Section 15063(d)(3), Initial Study. The State CEQA Guidelines include a suggested checklist to indicate whether the conditions set forth in State CEQA Guidelines Section 15162, which would require a subsequent Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), are met and whether there would be new significant impacts resulting from the Project not examined in the prior adopted Addendum. The checklist is found in Section IV, Evaluation of Environmental Impacts, of this Consistency Analysis. Following the checklist is an explanation and discussion of each answer on the form.

There are four (4) possible responses to each of the environmental issues included on the checklist:

- **New Significant Impact.** This response is used to indicate when the Project has changed to such an extent that major revisions of the prior adopted Addendum are required due to the presence of new significant environmental effects.
- **More Severe Impacts.** This response is used to indicate when the circumstances under which the Project is undertaken have changed to such an extent that major revisions of the prior adopted Addendum are required due to the fact that the severity of previously identified significant effects would substantially increase.
- **New Ability to Substantially Reduce Significant Impact.** This response is used to indicate when new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the prior adopted Addendum was adopted, indicates that there are new mitigation measures or alternatives available to substantially reduce significant environmental impacts of the Project, but the Project proponent declines to adopt the mitigation measure(s) or alternative.
- **No Substantial Change from Previous Analysis.** This response is used to indicate when the prior adopted Addendum determined an environmental impact to not occur or to be less than significant, and the Proposed Project would not create a new impact or substantially increase the severity of the previously identified environmental impact.

10. Incorporation by Reference

Information, findings, and conclusions contained in this document are based on the incorporation by reference of the prior adopted Addendum to the RSP Final EIR and technical studies that have been prepared for the Proposed Project.

Incorporation by reference is a procedure for reducing the size of CEQA compliance documents and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the Project itself. This procedure is particularly useful when a CEQA compliance document relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (Las Virgenes Homeowners Federation v. County of Los Angeles [1986, 177 Ca.3d 300]). If a CEQA compliance document relies on information from a supporting study that is available to the public, the CEQA compliance document cannot be deemed unsupported by evidence or analysis (San Francisco Ecology Center v. City and County of San Francisco [1975, 48 Ca.3d 584, 595]). This document incorporates by reference the document from which it is tiered, the prior CEQA Addendum. When a CEQA compliance document incorporates a document by reference, the incorporation must comply with State CEQA Guidelines Section 15150, Incorporation by Reference, as follows:

- The incorporated document must be available to the public or be a matter of public record (State CEQA Guidelines Section 15150[a]). The prior adopted Addendum shall be made available, along with this Consistency Analysis, at the City of Rialto, Development Services Department, 150 S. Palm Avenue, Rialto, CA 92376, 909.820.2525.
- This document must be available for inspection by the public at an office of the lead agency (State CEQA Guidelines Section 15150[b]). This document is available at the City of Rialto, Development Services Department, 150 S. Palm Avenue, Rialto, CA 92376, 909.820.2525.
- This document must summarize the portion of the document being incorporated by reference or briefly describe the information that cannot be summarized. Furthermore, this document must describe the relationship between the incorporated information and the analysis in the prior adopted Mitigated Negative Declaration.

The material to be incorporated in this document will include general background information (State CEQA Guidelines Section 15150[f]).

11. Public Services, Utilities and Service Systems

All utilities and public services are currently available on, or adjacent to, the Proposed Project Site. Utility and Service System providers are as follows:

Electricity: Southern California Edison
Water: City of Rialto

Sewer: City of Rialto
Gas: Southern California Gas
School: Fontana Unified School District
Police: Rialto Police Department
Fire: Rialto Fire Department

12. Surrounding Land Uses

To the north of the Project Site is the Alder Avenue off-ramp from the SR-210 Freeway and the mainline of the SR-210 Freeway, with the County of San Bernardino Mid-Valley Landfill beyond the freeway. East of the Project Site is Alder Avenue and large-scale warehouse buildings. Immediately south of the Project Site is W. Renaissance Parkway, south and southwest of which are public facilities, and two warehouse buildings totaling approximately 2,060,000 SF in size. Located to the west of the Project Site is vacant undeveloped land. The current zoning of the Project Site and the properties to the east is Freeway Commercial (FC) within the RSP. The zoning of the properties to the south is Planned Industrial Development (I-PID) within the Rialto Specific Plan, and the properties to the west are zoned Freeway Commercial (FC).

	GENERAL PLAN	ZONING	CURRENT LAND USE
PROJECT SITE	Renaissance Specific Plan	RSP- Freeway Commercial (FC)	Vacant; partial buildout of the Project
NORTH	Renaissance Specific Plan	N/A	SR-210 Off-Ramp and SR-210
EAST	Renaissance Specific Plan	N/A; RSP- Freeway Commercial (FC)	Alder Ave.; Vacant
SOUTH	Renaissance Specific Plan; Rialto Airport Specific Plan	Utilities; Employment; Planned Industrial Development (I-PID)	Public Facilities, Vacant Land; Industrial Warehouses
WEST	Renaissance Specific Plan	RSP-Freeway Commercial (FC)	Vacant

13. Required City of Rialto approvals, and other public agencies whose approval is required

Required approvals from the City of Rialto shall include, but not be limited to: Site Plan

Other public agencies whose approval may be required: N/A

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.

Aesthetics	Agriculture & Forestry Resources	Air Quality
Biological Resources	Cultural Resources	Energy
Geology/Soils	Greenhouse Gas Emissions	Hazards & Hazardous Materials
Hydrology/Water Quality	Land Use / Planning	Mineral Resources
Noise	Populations / Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities / Service Systems	Wildfire	Mandatory Findings of Significance

III. ENVIRONMENTAL DETERMINATION

On the basis of this Initial Study, the City of Rialto Environmental Review Committee finds:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED

I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the Proposed Project would have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

A PREVIOUS ENVIRONMENTAL DOCUMENT WAS PREPARED

I find that although the Proposed Project could have a significant effect on the environment, NO NEW ENVIRONMENTAL DOCUMENTATION IS REQUIRED because (a) all potentially significant effects of the Proposed Project have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, (b) all potentially significant effects of the Proposed Project have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, (c) the Proposed Project will not result in any new significant environmental effects not identified in the earlier EIR or Negative Declaration, (d) the Proposed Project will not substantially increase the severity of the environmental effects identified in the earlier EIR or Negative Declaration, (e) no

considerably different mitigation measures have been identified and (f) no mitigation measures found infeasible have become feasible.

X I find that although all potentially significant effects have been adequately analyzed in an earlier Mitigated Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. A CONSISTENCY ANALYSIS to a previously-certified Addendum to the Final EIR for the Renaissance Specific Plan has been prepared and will be considered by the approving body or bodies.

I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the Project in the changed situation; therefore a SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT is required that need only contain the information necessary to make the previous EIR adequate for the Project as revised.

I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT is required: (1) Substantial changes are proposed in the Project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the Project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following: (A) The Project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the Project, but the Project proponents decline to adopt the mitigation measures or alternatives; or, (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the Project on the environment, but the Project proponents decline to adopt the mitigation measures or alternatives.

_____ _____
Signature Date

_____
Printed Name

IV. EVALUATION OF ENVIRONMENTAL IMPACTS

I. AESTHETICS – Would the project:

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X

a) Have a substantial adverse effect on a scenic vista?

No Substantial Change from Previous Analysis. Consistent with the Addendum, the Project Site is located in Planning Area 11 of the RSP. The RSP Final EIR analyzed the development of the Project Site with Freeway Commercial (FC) land uses, including retail/office uses serving the community and traveling public. The hotel building on Parcel 3 under Phase 3 would be 56'-11" tall, which would be no taller than the elevations for the Previously Analyzed Project. The Modified Project would have no greater potential to block scenic views than what was disclosed in the Addendum. The Modified Project would not alter the conclusions of the Addendum related to impacts on scenic vistas.

b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Substantial Change from Previous Analysis. There are no designated scenic highways in the RSP project area, and therefore no designated scenic highways located in the vicinity of the Project Site. Consistent with the findings of the Addendum, implementation of the Modified Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. There is no substantial change from the previous analysis.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Substantial Change from Previous Analysis. As stated in the Addendum, the Proposed Project would be required to incorporate the RSP development standards and design guidelines that define the overall architectural and aesthetic character of the RSP. The guidelines are subject to oversight by appropriate City authorities prior to Project development. Development of the proposed hotel would blend with the urban characteristics of the adjacent development (existing and proposed). Therefore, consistent with the Addendum, the Modified Project would not substantially degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

No Substantial Change from Previous Analysis. The Previously Analyzed and Modified Project would be consistent with the type and intensity of commercial development that was analyzed in the RSP for the Project Site. The light anticipated from the proposed changes to the hotel would be no greater than what was assumed in the Addendum. With respect to daytime glare impacts that could result from reflective building materials, the proposed hotel is required to be consistent with the design guidelines of the RSP, which specify that lighting elements be shielded or downward facing to minimize glare, spillover, and light pollution. Consistent with the Addendum, the Project Site is surrounded on the north, south, and east sides by existing and planned development that would have similar sources of light and glare. There is no substantial change from the previous analysis. Any impacts will be less than significant.

II. AGRICULTURE AND FORESTRY RESOURCES

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?				X
d) Result in loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?*

No Substantial Change from Previous Analysis. Consistent with Section 4.2 of the Addendum, the Project Site contains lands classified as "Urban and Built Up Land."[1] The Modified Project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). There is no substantial change from the previous analysis. No new impacts will occur.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Substantial Change from Previous Analysis. The Project Site is part of the RSP planning area. Consistent with Section 4.2 of the Addendum, no portion of the RSP project area is under Williamson Act contract.[2] There is no substantial change from the previous analysis. No new impacts will occur.

[1] California Department of Conservation. 2022. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 2025.
[2] San Bernardino County Assessor-Recorder-County Clerk. 2024. Parcels Under Open Space Contract Report. https://arc.sbcounty.gov/wp-content/uploads/sites/70/arcforms/NPP874-NP034-REPORT-NoAddress-Updated.txt. Accessed June 2025.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

No Substantial Change from Previous Analysis. Consistent with Section 4.2 of the Addendum, the Project Site is currently zoned Freeway Commercial. Therefore, the Modified Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. There is no substantial change from the previous analysis. No new impacts will occur.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Substantial Change from Previous Analysis. As stated in Section 4.2 of the Addendum, the RSP Final EIR contained enough information about the RSP's existing land use, vegetation types and zoning that with the exercise of reasonable diligence, information about the absence of forest resources was readily available to the public. The Addendum concluded that the implementation of the Proposed Project would result in less than significant impacts associated with the environmental factor of forest resources. The Modified Project does not expand the proposed areas of disturbance. Therefore, there is no substantial change from the previous analysis. No new impacts will occur.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Substantial Change from Previous Analysis - No Impact. Consistent with Section 4.2 of the Addendum, implementation of the Proposed Project would result in less than significant impacts associated with agriculture and forest resources. The Modified Project does not expand the proposed areas of disturbance. There is no substantial change from the previous analysis. No new impacts will occur.

III. AIR QUALITY

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X
c) Expose sensitive receptors to substantial pollutant concentrations?				X
d) Create objectionable odors affecting a substantial number of people?				X

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Substantial Change from Previous Analysis/Renaissance SP FEIR. The RSP Final EIR found that development of the Plan would be inconsistent with Air Quality Management Plan and the effects to be significant and unavoidable. Therefore, a Statement of Overriding Considering was adopted.

Therefore, the modifications to the Addendum would continue to conflict with the AQMP. No new significant impacts are anticipated.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

No Substantial Change from Previous Analysis. The regional significance analysis of construction and operational emissions associated with full buildout of the RSP, demonstrated that without mitigation, emissions of NO_X, VOC, PM_{10}, and $PM_{2.5}$ would exceed SCAQMD regional significance thresholds. Therefore, without mitigation, the RSP Final EIR concluded that the RSP project would contribute to a cumulatively significant regional impact to the budget of pollutant ozone, PM_{10} and $PM_{2.5}$. After implementation of RSP Final EIR MM AQ-1 through AQ-15, construction and operational impacts were also determined to be significant and unavoidable. The City Council therefore adopted a Statement of Overriding Considerations finding that the project benefits outweighed the significant impacts.

As was discussed in Section 4.3 of the Addendum, a less than significant impact would occur for Project-related construction-source emissions and no additional mitigation would be required. RSP Final EIR mitigation measures would remain applicable to the Proposed Project. In addition, as summarized in the Addendum, the Previously Analyzed Project would not exceed SCAQMD thresholds for any criteria pollutants during operational activities.

A Project Trip Generation Comparison Technical Memorandum, dated September 10, 2025, was prepared for the Modified Project by Ganddini Group, Inc. (see Appendix B). The 100-room hotel was forecasted to generate 719 daily trips, whereas the 95-room hotel (Phase 3) would generate 683 daily trips. There would be a decrease in mobile emissions. Furthermore, there would be a reduction in building footprint with the Modified Project. The proposed areas of disturbance would remain the same. As such, area and energy source emissions would decrease. Consistent with the Previously Analyzed Project, the Modified Project operational emissions would be below SCAQMD thresholds. No new significant impacts would result from the proposed changes.

c) Expose sensitive receptors to substantial pollutant concentrations?

No Substantial Change from Previous Analysis.

As was discussed in Section 4.3 of the Addendum, the Previously Analyzed Project would not exceed the SCAQMD's localized significance thresholds (LSTs) for any criteria pollutant. As stated previously, there would be a reduction in area, energy, and mobile source emissions with the Modified Project. As such, the Modified Project's localized emissions are not anticipated to exceed LSTs, and no new significant impacts are anticipated.

d) Create objectionable odors affecting a substantial number of people?

No Substantial Change from Previous Analysis. As discussed in Section 4.3 of the Addendum, there are no anticipated Project construction-source odor emissions. Potential sources of operational odors generated by the Modified Project would include disposal of miscellaneous commercial refuse. Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances. Therefore, consistent with the Addendum, potential odor impacts from the Modified Project are considered less than significant. There is no substantial change from the previous analysis. No new impacts will occur.

Mitigation Measures

The following applicable mitigation measures are from the RSP Final EIR and are required for the Project.

AQ-1: Prior to construction of the project, the project proponent shall prepare a Large Operation Notification that will describe the application of standard best management practices to control dust during construction. Best management practices will include application of water on disturbed soils a minimum of three times per day, covering haul vehicles, replanting disturbed areas as soon as practical, and restricting vehicle speeds on unpaved roads to 15 mph, and other dust control measures, as deemed appropriate to the site or

as included in the South Coast Air Quality Management District (SCAQMD) Rule 403. The Large Operation Notification shall be submitted to the City and SCAQMD for approval prior to construction.

AQ-2: During project construction, construction equipment shall be properly maintained at an offsite location in accordance with manufacturer's specifications; maintenance shall include proper tuning and timing of engines. The equipment maintenance records and equipment design specification data sheets shall be available during construction and subject to inspection.

AQ-3: During project construction, the developer shall require all contractors to turn off all construction equipment when not in use or limit idling to less than 5 minutes.

AQ-4: Prior to construction of the project, the project proponent shall prepare a Traffic Control Plan and submit it to the City of Rialto. The Plan shall describe in detail safe detours around the project construction site and congested streets. The Plan shall provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. The Plan is primarily intended as a safety measure but also can minimize traffic congestion and delays that increase idling and acceleration emissions. The Plan shall include the scheduling of construction truck trips during non- peak hours to reduce peak hour emissions. The Plan shall include the consolidation of truck deliveries, where feasible. The Plan shall also provide for dedicated turn lanes for movement of construction vehicles onsite and offsite. The Plan shall also provide for proper configuration of construction parking to minimize traffic interference. The Plan shall be prepared in accordance with U.S. Department of Transportation Federal Highways Administration Rule on Work Zone Safety 23CFR 630 Subpart J, Developing and Implementing Traffic Management Plans for Work Zones.

AQ-5: Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable; and use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. All paints shall be low VOC content paints. For a list of low volatile organic compound (VOC) paints, see www.aqmd.gov/prdas/brochures/paintguide.html.

AQ-6: Prior to issuance of a grading permit, a Construction Employee Trip Reduction Plan shall be created. Included in the Plan shall include a shuttle service to and from retail establishments during lunch hour and/or an onsite lunch service. The Plan shall also include carpooling and/or transit incentives for the construction employees.

AQ-7: During project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.

AQ-8: Grading activity shall not occur on days with an Air Quality Index forecast for San Bernardino County greater than 100 for particulates or ozone. The categories where grading shall not occur are: unhealthy for sensitive groups, unhealthy, very unhealthy, or hazardous. Air Quality Index forecasts can be obtained at the website: www.airnow.gov/index.cfm?action=airnow.showlocal&CityID=211.

AQ-9: All diesel-powered off-road construction equipment in excess of 50 brake horsepower shall be required to have emission control equipment with a minimum of Tier II diesel particulate filter emission controls resulting in a minimum of 50 percent particulate matter control, if such a filter is available for that piece of equipment. Off-road diesel emission control equipment meeting this requirement can be found at: www.aqmd.gov/ceqa/handbook/mitigation/offroad/AQ_offroad.html.

AQ-10: The following shall be included in the Specific Plan:

- Synchronize traffic lights on streets impacted by development;
- Light colored roofing materials shall be used on all exposed roofs;
- Preferential parking for carpool/vanpool vehicles at the non-residential uses;
- Secure weather-protected bicycle parking for employees at the non-residential uses;
- Connect bicycle lanes/paths to project-wide network;
- Provide showers and lockers for employees bicycling or walking to work at the non- residential uses where feasible;
- Short-term bicycle parking for retail customers and other non-commuting trips; and
- Construct transit facilities such as bus turnouts, benches, and shelters that encourage mass transit usage and provide safe pedestrian access from proposed project facilities to transit stops.

AQ-13: The following uses shall not be located within the distance specified from an existing or future sensitive receptor (residence, school, hospital, nursing home daycare center, park and playground): within 500 feet of the 210 Freeway; within 500 feet of the equipment within a dry cleaning facility utilizing Perchloroethylene, and within 300 feet of a fueling station facility (i.e. fuel pumps). These facilities may be located closer than the proscribed distances if a project- specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

AQ-14: The following uses shall not be located within 1000 feet of a nearby sensitive receptor (occupied portions of existing or future residences, schools, hospitals, nursing homes, daycare centers, parks and playgrounds): a warehouse, distribution center, or logistics center unless a project- specific health risk assessment is performed that demonstrates that the project-specific health risk impacts do not exceed the SCAQMD's health risk significance thresholds.

IV. BIOLOGICAL RESOURCES

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc…) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				X

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

No Substantial Change from Previous Analysis. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. As such, consistent with Section 4.4 of the Addendum, the Project Site's vegetation does not provide any quality habitat for candidate, sensitive, or special status species that may be regulated by the CDFW or USFWS. There is no substantial change from the previous analysis. No new impacts will occur.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

No Substantial Change from Previous Analysis. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. Under existing conditions, Parcel 3 consists of vacant and undeveloped land. Therefore, consistent with the Addendum, implementation of the Proposed Project would result in less-than-significant impacts associated with riparian habitat or other sensitive natural communities. There is no substantial change from the previous analysis. No new impacts will occur.

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Substantial Change from Previous Analysis. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. The Project Site is surrounded by existing development and disturbed areas and therefore does not consist of any federally protected wetlands or jurisdictional waters. As such, consistent with the findings of the Addendum, the Modified Project would not have a substantial effect on federally protected wetlands or jurisdictional waters. There is no substantial change from the previous analysis. No new impacts will occur.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Substantial Change from Previous Analysis. As discussed in the Addendum, the Project Site is surrounded by existing development and disturbed areas and therefore does not occupy an important location relative to wildlife movement. As such, consistent with the findings of the Addendum, implementation of the Modified Project would not have a substantial effect on local or regional wildlife. There is no substantial change from the previous analysis. No new impacts will occur.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

No Substantial Change from Previous Analysis. As discussed in the Addendum, the Previously Analyzed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Additionally, Parcel 3 does not contain any trees under existing conditions. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. Therefore, the Modified Project will not introduce any new impacts to biological resources. There is no substantial change from the previous analysis. No new impacts will occur.

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Substantial Change from Previous Analysis. As discussed in the Addendum, the Project Site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The Project Site is not currently located within a boundaries of a Habitat Conservation Plan nor a Natural Community Conservation Plan.[3] Therefore, consistent with the Addendum, the Modified Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There is no substantial change from the previous analysis. No new impacts will occur.

[3] California Department of Fish and Wildlife. BIOS GIS map. https://apps.wildlife.ca.gov/bios6/?al=ds760. Accessed June 2025.

V. CULTURAL RESOURCES

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				X
c) Disturb any human remains, including those interred outside of formal cemeteries?				X

a, b) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

No Substantial Change from Previous Analysis. As was discussed in Section 4.5 of the Addendum, implementation of the Previously Analyzed Project would not have a substantial effect on historical or archaeological resources. As the proposed area of disturbance remains within the same site boundaries as that of the Previously Analyzed Project, the Modified Project will not introduce any new impacts to historical or archaeological resources. Mitigation Measure CR-1 requires subsequent evaluation of sites that would be impacted as part of site-specific design plans for Planning Areas that contain resources. Mitigation Measure CR-1 will be carried forward to the Modified Project. No new impacts would result from the modifications to the Project.

c) *Disturb any human remains, including those interred outside of formal cemeteries?*

No Substantial Change from Previous Analysis. As was discussed in the Addendum, the Project Site is not located within a known or suspected cemetery and there are no known human remains on the Project Site. The Modified Project would not result in any new or substantially increased impacts associated with human remains. However, should human remains be discovered, treatment of those remains are required to follow California Public Resources Code (PRC) section 5097.9. Any human remains that are determined to be Native American shall be reported to the San Bernardino County Medical Examiner and Coroner and subsequently to the Native American Heritage Commission, as required under Health and Safety Code section 7050.5. The following applicable mitigation measure (MM CR-1) is from the RSP Final EIR and are required for the Project.

Mitigation Measures

CR-1: When site specific design plans are submitted for approval within the Renaissance Specific Plan and associated project-level CEQA documentation prepared, a finding of significance must be established for all cultural resources located within the proposed Planning Area based upon the inventory of cultural resources provided in the Phase I Cultural Resources Assessment (MBA 2006e). As shown in Table 4.5-2 [of this Section], 25 Planning Areas exhibit one or more cultural resources. Prior to City approval of plans for development, significance evaluations of the resource(s) located in the specific Planning Area(s) must be conducted by a qualified professional. Recordation of identified cultural resources onto DPR523 form sets shall be undertaken during the significance evaluation(s), if such recordation have not yet occurred, as established under rules and regulations regarding such matters in effect at the time of the evaluation. This measure shall be implemented to the satisfaction of the City Development Services Director.

VI. ENERGY

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?				
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				

An energy analysis was not provided in the prior Addendum as it was not a required Checklist question in the CEQA Guidelines.

a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?*

Energy not Previously Analyzed in Addendum. The Previously Analyzed Project was the development of one (1) gas station with car wash (Phase 1), two (2) quick service restaurants (QSR) (i.e., fast food restaurant) with drive-thru lanes (Phase 2, Phase 4), one (1) 100-room 4-story hotel (Phase 3), and one (1) high turnover sit-down restaurant (Phase

4). The Modified Project would decrease the number of rooms for the hotel (Phase 3) from 100 to 95 and would also reduce the building area. Therefore, the Modified Project is anticipated to result in a reduction of energy use over the previously analyzed 100-room hotel. No significant impacts are anticipated, and no mitigation measures are required.

b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Energy not Previously Analyzed in Addendum. Electrical service to the Project Site would be provided by Southern California Edison (SCE). SCE is subject to the requirements of California Senate Bill 100 (SB 100). SB 100 is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045. The Modified Project will further comply with the mandatory requirements of California's Green Building and Building Energy Efficiency standards that promote renewable energy and energy efficiency. Therefore, the Modified Project will not conflict with or obstruct a State or Local plan for renewable energy or energy efficiency. Any impacts are considered less than significant. The Modified Project does not introduce any new significant impacts related to energy efficiency or conservation plans.

VII. GEOLOGY AND SOILS

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault?				X
ii. Strong seismic ground shaking?				X
iii. Seismic-related ground failure, including liquefaction?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
iv. Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 181B of the California Building Code (2001) creating substantial direct or indirect risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Substantial Change from Previous Analysis. Consistent with the Addendum findings, the Project Site lies outside any Alquist-Priolo Special Studies Zone.[4] Therefore, the potential for damage due to direct fault rupture is less than significant. The San Jacinto fault zone is located approximately 1.5 miles (2.5 kilometers) from the Project Site. Conformance to the latest Building Code provisions would result in a less-than-significant impact associated with strong seismic ground shaking. However, as the RSP Final EIR requires implementation of Mitigation Measures GS-1 to GS-3

[4] California Department of Conservation – California Geological Survey. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/. Accessed June 2025.

(listed below), these mitigation measures will be carried forward to the Modified Project. No new impacts would result from the modifications to the Project.

ii. Strong seismic ground shaking?

No Substantial Change from Previous Analysis. The San Jacinto fault zone is located approximately 1.5 miles (2.5 kilometers) from the Project Site. Consistent with findings of the Addendum, conformance to the latest Building Code provisions would result in a less than significant impact associated with strong seismic ground shaking. No new impacts would result from the modifications to the Project.

iii. Seismic-related ground failure, including liquefaction?

No Substantial Change from Previous Analysis. The geological conditions at the Project Site that existed at the time the Addendum was prepared (seven years ago) would not have changed. As such, consistent with the findings of the Addendum, the seismic settlement and liquefaction potential on-site is low. Impacts would be less than significant, and mitigation would not be required. No new impacts would result from the modifications to the Project.

iv. Landslides?

No Substantial Change from Previous Analysis. Under existing conditions and consistent with the conditions that existed at the time the Addendum was prepared, the Project Site is relatively flat and does not contain any natural slopes. Consistent with the finding of the Addendum, impacts associated with landslides would be less than significant and mitigation would not be required. No new impacts would result from the modifications to the Project.

b) Result in substantial soil erosion or the loss of topsoil?

No Substantial Change from Previous Analysis. Consistent with the findings of the Addendum, development of the Project Site would expose the underlying soils, which would temporarily increase erosion susceptibility. In the long-term, development of the Project Site would increase the extent of impervious surface cover and landscaping on the Project Site, thereby reducing the potential for erosion and the loss of topsoil. As was required for the Previously Analyzed Project, the Modified Project would be required to adhere to standard regulatory requirements, including, but not limited to, requirements of a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit and the Project-specific Water Quality Management Plan (WQMP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. With mandatory compliance with the NPDES Municipal Stormwater Permit and the Project's WQMP, the Project's potential to result in substantial soil erosion or the loss of topsoil would be less than significant, consistent with the Addendum findings. However, as the RSP Final EIR requires implementation of Mitigation Measures

GS-4 to GS-6 (see below), these mitigation measures will be carried forward to the Modified Project. No new impacts would result from the modifications to the Project.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

No Substantial Change from Previous Analysis. Consistent with the Addendum, the Project Site is relatively flat and does not contain any natural slopes. Therefore, impacts associated with lateral spreading, landslides, subsidence, liquefaction, or collapse would be consistent with the findings of Addendum and be less than significant. However, as the RSP Final EIR requires implementation of Mitigation Measures GS-4 to GS-6 (see below), these mitigation measures will be carried forward to the Modified Project. No new impacts would result from the modifications to the Project.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

No Substantial Change from Previous Analysis. Under existing conditions and consistent with the conditions that existed at the time the Addendum was prepared, the Project Site would not have significantly changed and therefore has a very low expansion potential. Therefore, because the proposed hotel would not be located on an expansive soil, the soils on the Project Site would not create substantial risks to life or property. The building would be designed in accordance with the most current Building codes. Accordingly, consistent with the Addendum finding, impacts would be less than significant, and no mitigation would be required. No new impacts would result from the modifications to the Project.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Substantial Change from Previous Analysis. Consistent with the findings of the Addendum, the Proposed Project would connect to a municipal sewer system, therefore, impacts arising from septic systems and alternative sewage systems were determined not applicable to the Project. The Modified Project does not propose the use of septic tanks or alternative wastewater disposal systems. Consistent with the Addendum, impacts would be less than significant, and no mitigation would be required. No new impacts would result from the modifications to the Project.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No Substantial Change from Previous Analysis. As the proposed area of disturbance would be the same as was analyzed in the Addendum, the Modified Project would not have

a substantial effect on paleontological resources, consistent with the conclusions of the Addendum. No new impacts would result from the modifications to the Project.

Mitigation Measures

The Modified Project would implement RSP Final EIR MM GS-1 through GS-6 below. With implementation of MM GS-1 through GS-6, impacts would be reduced to less than significant, consistent with the findings of the Addendum.

GS-1: Prior to the issuance of grading permits for each planning area of the project, the project applicant or its designee shall provide design-level geotechnical reports for those areas. These reports shall consider, but shall not necessarily be limited to, such factors as manufactured slope stability (if applicable), compressible soils, corrosive soils, and the engineering and construction of occupied or inhabited structures. The findings and recommendations contained in these reports shall be implemented. As necessary, the City may require additional studies and/or engineering protocols to meet its requirements. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-2: Prior to the issuance of building permits for each planning area of the project, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be able to withstand a horizontal seismic acceleration of 0.96g. Specific design-level geotechnical reports shall be prepared by a State of California Certified Engineering Geologist for planning areas within the Specific Plan to determine that structures within those areas meet required design criteria. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-3: Prior to the issuance of building permits for each planning area, the project applicant or its designee shall demonstrate that all occupied or inhabited structures will be constructed to the standards outlined in the Uniform Building Code, the California Building Code, the design-level geotechnical reports, and/or other such standard as identified and required by the City. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-4: During construction and excavation activities on the project site, all temporary slopes (i.e., excavations and trenching) shall be adequately shored and/or flattened to a shallower gradient to lessen the possibility of failure. All Cal-OSHA regulations shall be implemented for excavations that will be entered by people. All excavations will be open only as long as is necessary and shall be backfilled immediately upon completion of work. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-5: Prior to the issuance of grading permits, the project applicant or its designee shall present an Erosion Control Plan (ECP) designed to lessen the impacts of erosion during construction. This plan shall comply with all applicable grading codes and water quality protection protocols. This plan shall be implemented during site construction. This measure shall be implemented to the satisfaction of the City Development Services Director.

GS-6: During grading and development of the project site, all oversized material (larger than 12 inches in largest dimension) shall be handled as recommended in the project geotechnical reports. This material may be placed in deeper fills, nonstructural areas, or disposed of offsite. This measure shall be implemented to the satisfaction of the City Development Services Director.

VIII. GREENHOUSE GAS EMISSIONS

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X
b) Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases?				X

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

No Substantial Change from Previous Analysis. Many gases make up the group of pollutants which contribute to global climate change. However, three gases are currently evaluated and represent the highest concentration of greenhouse gas (GHG): Carbon dioxide (CO_2), Methane (CH_4), and Nitrous oxide (N_2O). SCAQMD provides guidance methods and/or Emission Factors that are used for evaluating a project's emissions in relation to the thresholds.

As discussed in the Addendum, the RSP project-specific GHG impact was evaluated on a cumulative basis; the RSP Final EIR considered impacts as significant and unavoidable. The City Council adopted a Statement of Overriding Considerations finding that the project benefits outweighed the significant impacts. As stated in Section 4.18 of

the Addendum, the Previously Analyzed Project has the potential to generate a total of approximately 4,892.92 MTCO2e per year. The Previously Analyzed Project would exceed the SCAQMD's GHG emissions threshold for mixed-use projects of 3,000 MTCO2e per year. Therefore, the Previously Analyzed Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

As previously discussed, the 100-room hotel (Phase 3) was forecasted to generate 719 daily trips, whereas the 95-room hotel would generate 683 daily trips. There would be a decrease in mobile emissions. Furthermore, there would be a reduction in building footprint with the Modified Project. The proposed areas of disturbance would remain the same. As such, area and energy source emissions would decrease. Therefore, the Modified Project would not result in new significant impacts with regards to greenhouse gas emissions.

b) *Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases?*

No Substantial Change from Previous Analysis. The Addendum concluded that the Previously Analyzed Project would not conflict with any applicable GHG-reduction plans, policies, or regulations. Consistent with Renaissance Specific Plan EIR and Addendum Findings, the Modified Project would be consistent with all the applicable plans, policies and regulation for the purpose of reducing GHG gases. The *RSP Final EIR* found that impacts from GHG emissions to be significant and unavoidable (Greenhouse Gas Emissions, Generation of GHG emissions; and Greenhouse Gas Emissions, Conflict with applicable plans). Therefore, a Statement of Overring Considerations was adopted. No new significant impacts would result from the modifications to the Project.

Mitigation Measures

The Modified Project's design features are required to be reviewed in conformance with the provisions of RSP Chapter 6, Sustainability, during the development review process. The following RSP Final EIR mitigation measures are applicable to the Modified Project to reduce the Project's GHG emissions to the maximum practical extent.

CC-2 Where appliances are offered by homebuilders, Energy Star appliances will be installed.

CC-3 The Proposed Project will comply with any applicable local Climate Action Plan or mitigation program for the reduction of GHGs adopted by the City of Rialto or the County of San Bernardino that is adopted prior to the issuance of building permits for subsequent project phases.

CC-4 The Proposed Project shall promote the use of alternative fuel technologies for construction vehicles by including language in construction bid specifications and weighting the use of alternative fuel technologies in the selection of construction contractors.

CC-5 Throughout construction, the Proposed Project shall maintain a centralized information repository for available recycled building materials. Recycled building materials shall be incorporated where practicable.

IX. HAZARDS AND HAZARDOUS MATERIALS

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Create a significant hazard to the public or the Environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				X

a/b) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Substantial Change from Previous Analysis. Construction activities may involve the limited transport, storage, usage, or disposal of hazardous materials, such as fueling/servicing construction equipment. However, construction activities are temporary and short-term, and are subject to federal, State, and local health and safety requirements. As concluded in the Addendum, adherence to federal, State, and local health and safety requirements would reduce the potential impacts associated with construction activities to less than significant level.

The Previously Analyzed Project includes the construction and operation of a 100-room hotel on Parcel 3 (Phase 3). The Addendum concluded that with mandatory regulatory compliance, potential hazardous materials impacts associated with long-term operation of the Previously Analyzed Project, which includes the development of the hotel, would be less than significant. The Modified Project proposes to decrease the number of rooms for the hotel on Parcel 3 from 100 to 95. The decrease in the number of rooms would not result in new impacts associated with hazards and hazardous materials.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Substantial Change from Previous Analysis. Consistent with Section 4.7 of the Addendum, no existing schools are located within one-quarter mile of the Project Site. The nearest school site is Wayne Rubble Middle School located at 6792 Juniper Avenue, Fontana, CA, approximately 1.2 miles southwest of the Project Site. Located south of Renaissance Parkway between Linden Avenue and Ayala Drive, the proposed Village area is the residential enclave consisting of several unique neighborhoods, one school, two community parks, several neighborhood parks, and a multi-use trail. As currently envisioned, the proposed school is located on the southern edge of the community; however, the school site may be relocated within the Village depending upon negotiations with the school district and in response to the California Department of Education

requirements.[5] The proposed Village area is located approximately 1 mile southeast of the Project Site. Therefore, no proposed schools are located within one-quarter mile of the Project Site. No new impacts would result from the modifications to the Project.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Substantial Change from Previous Analysis. The Project Site is not listed on a list of hazardous materials sites pursuant to Government Code Section 65962.5,[6] consistent with Section 4.7 of the Addendum. Therefore, no new impacts would result from the modifications to the Project.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Substantial Change from Previous Analysis. Consistent with Section 4.7 of the Addendum, there are no operating private airfields within two miles of the Project Site. The closest airport to the Project Site is the Rialto Municipal Airport, which was officially closed in September 2014. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. No new impacts would result from the modifications to the Project.

f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Substantial Change from Previous Analysis. As was discussed in Section 4.7 of the Addendum, the Approved Project would not interfere with an adopted emergency response plan or emergency evacuation plan. The modifications to the Project will not introduce any new interference with any adopted emergency response plan. The Modified Project would provide adequate parking spaces, so project vehicles would not park off-site and would not interfere with the use of public roads. Therefore, no new impacts would result from the modifications to the Project.

g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

No Substantial Change from Previous Analysis. As discussed in Section 4.7 of the Addendum, the RSP project area, which includes the Project Site, is within an area categorized as having a "Low" risk from wildland fires.[7] In addition, the RSP project area is not located near an urban/wildlands interface area. The Project Site is currently

[5] City of Rialto. Renaissance Specific Plan Amendment: Final Screencheck Draft. July 2018.
[6] Department of Toxic Substance Control. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/. Accessed June 2025.
[7] Hogle-Ireland, Inc. City of Rialto General Plan. Adopted in 2010.

surrounded by roadways and developed land. The nearest wildlands are the San Bernardino Mountains, which are located approximately 3.0 miles northeast of the Project Site. Accordingly, consistent with the Addendum finding, the Modified Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No new impacts would result from the modifications to the Project.

X. HYDROLOGY AND WATER QUALITY

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede substantial groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				X
i) result in substantial erosion or siltation on- or off-site;				X
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				X
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
e) Conflict with or obstruct implementation of a water quality control plan or substantial groundwater management plan?				X

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

No Substantial Change from Previous Analysis.

Construction-Related Water Quality Impacts

Consistent with the Previously Analyzed Project, construction of the Modified Project would involve grading, paving, utility installation, building construction, and landscaping installation. Mandatory adherence to San Bernardino County's Municipal Storm Water Management Program and the NPDES Permit for San Bernardino County and the incorporated cities of San Bernardino County would ensure that the development of the Project Site does violate any water quality standards or waste discharge requirements during construction activities.

Operational-Related Water Quality Impacts

Blue Engineering prepared a WQMP, submitted September 10, 2024, and revised July 28, 2025, for the Modified Project pursuant to the requirements of the NPDES (see Appendix C). Therefore, water quality impacts associated with operations of the Modified Project would be less than significant.

Therefore, consistent with the Addendum, water quality impacts associated with the Modified Project would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Substantial Change from Previous Analysis. As discussed in Section 4.8 of the Addendum, the Previously Analyzed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The 95-room hotel would have a lower water demand than the previously analyzed 100-room hotel. Moreover, as concluded above, the Modified Project would not violate any water quality standards or waste discharge requirements. Therefore, it would not interfere with groundwater recharge. No new impacts would result from the modifications to the Modified Project.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
iv) impede or redirect flood flows?

No Substantial Change from Previous Analysis. As discussed in Section 4.8 of the Addendum, under Previously Analyzed Project conditions, surface water runoff discharged from the Project Site would follow a similar pattern across the site as occurs under existing conditions. A preliminary Hydrology report was prepared for the Modified Project by Blue Engineering in August 2024 (revised July 2025) (see Appendix D). The on-site storm drain system would be sized to take the 100-year peak flowrate. The proposed catch basins would be able to infiltrate and retain the increased flow rate and runoff. The remaining amount would outlet to an existing storm drain on Renaissance Parkway flowing easterly towards Alder Avenue. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required. No new impacts would result from the modifications to the Project.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Substantial Change from Previous Analysis. Due to the inland distance from the Pacific Ocean and any other significant body of water, tsunamis and seiches are not potential hazards at the Project Site. There are no levees or dams in the vicinity of the Project Site. The nearest dam or levee is Lytle Creek levee located approximately 2.5 miles northeast of the Project Site and Hawker Crawford Channel located approximately 2.9 miles north of the Project Site. Therefore, consistent with the Addendum findings, the Modified Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. No new impacts would result from the modifications to the Project.

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

No Substantial Change from Previous Analysis. As stated previously, the Modified Project would not provide substantial additional sources of polluted runoff. Implementation of the provisions of the WQMP will ensure that the Modified Project reflects up-to-date conditions on the site consistent with San Bernardino County's Municipal Storm Water Management Program and the intent of the NPDES Permit for San

Bernardino County and the incorporated cities of San Bernardino County within the Santa Ana Region. The modifications to the Project will not introduce any new impacts.

Mitigation Measures

The following applicable mitigation measures (MM HYD-1 through HYD-6) are from the RSP Final EIR and are required for the Project.

HYD-1: Prior to issuance of grading permits, the developers or their designees shall coordinate the design and obtain approval of all flood control and storm drain structures as identified in project hydrology studies. The developers or their designees shall provide evidence of this approval to the City Public Works Department. These improvements shall be consistent with any master planning efforts of the County to the satisfaction of the City Engineer.

HYD-2: The developers or their designees shall obtain a General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activity General Permit). The developers or their designees shall provide a copy of this permit to the City Public Works Department prior to the issuance of grading permits.

HYD-3: Prior to the issuance of grading permits, the developers or their designees shall prepare a WQMP and an Erosion and Sediment Control Plan (ESCP) to implement the most appropriate BMPs and to prevent any significant removal and/or downstream deposition of soil from the project site during construction. The WQMP and ESCP shall contain provisions requiring that all erosion control measures and structures be maintained and repaired as needed for the life of the project. Prior to the issuance of a grading permit, the City Development Services Department, Engineering Division shall approve the WQMP and ESCP based on review and input by the RWQCB. At the request of the developer, the City Public Works Department may accept a Storm Water Pollution Prevention Plan (SWPPP) as a substitute for the ESCP as long as it fulfills the intent of this measure to an equivalent degree. The SWPPP or ESCP shall be prepared to the satisfaction of the City Public Works Department. The WQMP and ESCP or SWPPP shall include, but not be limited to, the following:

a) Specify the timing of grading and construction to minimize soil exposure to winter rain periods experienced in southern California;

b) Natural vegetation shall be retained on all areas that will not be disturbed for grading, except areas that must be cleared and revegetated as part of a fuel modification program;

c) All slopes greater than five feet in height shall be evaluated to define the optimum length and steepness to minimize flow velocity and erosion potential. Lateral drainage collection systems shall be incorporated at

the base of slopes, when determined appropriate, to transport flows in a controlled, non-erodible channel;

d) Indicate where flows on the site can be diverted from denuded areas and carried in the natural channels on the site;

e) Construct man-made channels to minimize runoff velocities;

f) Disturbed areas shall be vegetated and mulched immediately after final grades have been established;

g) Sediment traps, basins, or barriers (silt fences, hay bales, etc.) shall be established on the property to prevent the release of "first flush" urban pollutants, including sediment, from developed areas, including the emergency access roads. The design and location of these improvements shall be identified in the plan subject to review and approval by the City;

h) Drainage facilities designed to transport flows shall be described and the adequacy of the channel shall be verified by City approval of a detailed drainage analysis;

i) An inspection and maintenance program shall be included to ensure that any erosion, which does occur either on or offsite as a result of the project, will be corrected through a remediation or restoration program within a time frame specified by the City;

j) Confirmed observations by the City of uncontrolled runoff being carried onsite will be grounds for suspension or revocation of any grading or building permit in process, or any discretionary permit subsequently applied for until the problem is resolved to the satisfaction of the City Public Works Department.

HYD-4: Prior to the issuance of building permits, graded but undeveloped land shall be maintained in a relatively weed-free condition and/or planted with interim landscaping within 180 days of completion of grading, unless building permits are obtained. This measure shall be implemented to the satisfaction of the Development Services Director.

HYD-5: Prior to the issuance of occupancy permits, planting of developed land shall comply with the NPDES Best Management Practices Construction Handbook Section 6.2 to the satisfaction of the City Engineer and/or Public Works Director as applicable.

HYD-6: Prior to issuance of the first occupancy permit, the developers or their designees shall provide proof to the Public Works Department that the onsite drainage facilities will be maintained by the County, City, HOA, or equivalent. The developer must demonstrate that these facilities will be adequately maintained by an appropriate mechanism or organization, to the satisfaction of the City Public Works Department.

Consistent with the Addendum, with the implementation of RSP Final EIR MM HYD-1 through HYD-6, impacts would be less than significant. Implementation of the Modified Project would not result in any new impacts or increase the severity of any previously identified significant impact associated with hydrology and water quality.

XI. LAND USE AND PLANNING

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a) Physically divide an established community?

No Substantial Change from Previous Analysis. The Project Site is located within the geographical limits of the RSP and envisioned for full buildout according to the RSP. Consistent with Section 4.9 of the Addendum, the Project Site is currently bounded on the south by W. Renaissance Parkway and on the east by Alder Avenue. To the north of the Project Site is SR-210 and the off-ramp, which leads to Alder Avenue. Directly west of the Project Site is vacant land in the RSP project area and W. Renaissance Parkway. To the south of the Project Site are public facilities. Directly east of the Project Site is Alder Avenue and vacant land within the RSP project area. Thus, the Project Site is already surrounded by development and planned buildout of the RSP. Therefore, consistent with the finding of the Addendum, development of the Modified Project on the Project Site would not physically divide an established community. No new impacts would result from the modifications to the Project.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Substantial Change from Previous Analysis. As was discussed in Section 4.9 of the Addendum, the Previously Analyzed Project would not conflict with plans and policies adopted for avoiding or reducing adverse effects on the environment. The modifications to the Project does not affect the consistency of any applicable land use plan, and would not require a Zone Change or General Plan Amendment. As the Modified Project would reduce the intensity and building area of the proposed hotel, the magnitude of the environmental

impact would also decrease. Therefore, no new impacts would result from the modifications to the Project.

XII. MINERAL RESOURCES

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a,b) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Substantial Change from Previous Analysis. Consistent with the Section 4.10 of the Addendum, the Project Site is located in an area mapped Mineral Resource Zone 2 (MRZ-2), which are identified as areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. However, the Project Site is located in an urban area that would not be compatible with mining operations. The proposed area of disturbance under the Modified Project is the same as that of the Previously Analyzed Project. Therefore, no new impacts would result from the modifications to the Project.

XIII. NOISE

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Generation of excessive groundborne vibration or groundborne noise levels?				X
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

No Substantial Change from Previous Analysis. The Modified Project would decrease the number of rooms for the proposed hotel (Phase 3) on Parcel 3 from 100 to 95. Operational noise sources would be the same as those of the Previously Analyzed Project. The proposed changes are not anticipated to result in noise levels above what was assessed in the Addendum. MM N-1 through N-3 (see below) are from the Addendum and will be carried forward to the Modified Project. Consistent with the Addendum, noise impacts would be less than significant

b) *Generation of excessive groundborne vibration or groundborne noise levels?*

No Substantial Change from Previous Analysis. As was discussed in the Addendum, the Proposed Project would not result in exposure of persons to, or generation of excessive groundborne vibration or groundborne noise levels. The reduction in number of hotel rooms and the reduction in building area would not introduce any new significant sources of vibration. Consistent with the Addendum, construction-related vibration impacts would be less than significant.

c) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Substantial Change from Previous Analysis. Consistent with Section 4.11 of the Addendum, there are no operating private airfields within two miles of the Project Site. The closest airport to the Project Site is the Rialto Municipal Airport which was officially closed in September 2014. The proposed area of disturbance remains the same under the Modified Project. No new impacts would result from the modifications to the Project.

Mitigation Measures

The following applicable mitigation measures (MM N-1 through N-3) are from the Addendum and are required for the Project.

N-1:

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays. The Project construction supervisor shall ensure compliance with the permitted construction hours.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 5:30 p.m. Monday through Friday from October 1st to April 30th, 6:00 a.m. to 7:00 p.m. Monday through Friday from May 1st to September 30th, and 8:00 a.m. to 5:00 p.m. on Saturdays any time of year; with no activity allowed on Sundays or state holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

N-2: During all Project Site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

N-3: The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project Site (i.e., to the center) during all Project construction.

XIV. POPULATION AND HOUSING

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Substantial Change from Previous Analysis. As was discussed in Section 4.12 of the Addendum, the Previously Analyzed Project is an employment-generating use and not a population-generating use. The Project Site is served by existing public roadways and utility infrastructure is already installed beneath public rights of way that abut the property. The Modified Project would decrease the number of rooms for the proposed hotel (Phase 3) on Parcel 3 from 100 to 95. The proposed modifications would require fewer employees than originally proposed for the 100-room hotel. As such, no new impacts would result from the modifications to the Project. Consistent with the Addendum finding, impacts would be less than significant, and no mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Substantial Change from Previous Analysis. Parcel 3 is currently vacant and therefore, development of the Modified Project would not displace existing people or housing or require replacement housing elsewhere. Therefore, no new impacts would result from the modifications to the Project. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

XV. PUBLIC SERVICES

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?				X
Police Protection?				X
Schools?				X
Parks?				X
Other Public Facilities?				X

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, and other public facilities?*

No Substantial Change from Previous Analysis. As was discussed in Section 4.13 of the Addendum, the Previously Analyzed Project would not result in the need to construct new or physically altered government facilities; thus, no impact on the physical environment would occur. The Project Applicant would be required to pay the development impact fees for schools, police protection, and other services. The payment of required development impact fees for schools, police protection and other services will offset the impacts to these public services. The decrease in the number of rooms for the proposed hotel (Phase 3) on Parcel 3 would not change, if not reduce, the impacts to public services. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

XVI. RECREATION

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				X

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Substantial Change from Previous Analysis. As was discussed in Section 4.14 of the Addendum, the Previously Analyzed Project does not include any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the Project Site's vicinity. Implementation of the Previously Analyzed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood, regional park, or other recreational facility. Consistent with the Previously Analyzed Project, the Modified Project is an employment-generating use and not a population-generating use. The decrease in the number of rooms for the proposed hotel (Phase 3) on Parcel 3 would not introduce any new impacts to recreational facilities. Consistent with the Addendum finding, impacts from the Modified Project would be less than significant, and no mitigation is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Substantial Change from Previous Analysis. Consistent with the Previously Analyzed Project, the Modified Project does not propose to construct any new on- or off-site recreation facilities nor does it propose to expand any existing off-site recreational facilities. Therefore, implementation of the Modified Project has no potential to result in adverse environmental physical effects related to the recreational facilities or the construction or expansion of recreational facilities. The modifications to the Project will not introduce any new impacts to recreational facilities. Consistent with the Addendum finding, impacts from the Modified Project would be less than significant, and no mitigation is required.

XVII. TRANSPORATION/TRAFFIC

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)(1)?				
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Substantial Change from Previous Analysis. A Project Trip Generation Comparison Technical Memorandum, dated September 10, 2025, was prepared for the Modified Project by Ganddini Group, Inc. (see Appendix B). The 100-room hotel (Phase 3) was forecasted to generate 719 daily trips, including 41 trips during the AM peak hour and 53 trips during the PM peak hour. On the other hand, the 95-room hotel would generate 683 daily trips, including 40 trips during the AM peak hour and 50 trips during the PM peak hour. The Modified Project would not result in any new significant impacts since it is forecast to result in an overall decrease in daily and peak hour trips. Therefore, the Modified Project is in conformance with the Previously Analyzed Project.

The CEQA thresholds of significance for transportation and traffic impacts have shifted in recent years. In the past, the analysis focused on the Level of Service (LOS) which measured congestion at local intersections and roadway segments. The current focus is to encourage active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit increases in Vehicle Miles Travelled (VMT). An important part of this analysis is to determine if a proposed action is consistent with both the vehicular and non-vehicular aspects of the Circulation Element of the General Plan.

The Modified Project would be consistent with the following applicable goals and policies of the General Plan Circulation Element:

Goal 4-1: Provide transportation improvements to reduce traffic congestion associated with regional and local trip increases.

Policy 4-1.2: Establish standards for spacing between access driveways on roadways of each classification, and encourage shared access between adjacent parcels to minimize the number of access points and improve safety along adjacent roadways.

Consistent: The Project Site consists of parcels that are proposed to be developed. The uses proposed for these parcels, including the hotel on Parcel 3, would share the same two access points on Renaissance Parkway.

Goal 4-2: Protect residential neighborhoods from through traffic impacts.

Policy 4-2.1: Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets for access to the development and its parking.

Consistent: The Project Site is located in a primarily industrial and commercial area. It is located adjacent to SR-210, making it directly accessible from a freeway. Any project-generated traffic coming from and going to the nearby residential areas would come from local residents intending to use the proposed services. As the Modified Project would result in a decrease in daily trips, there would be no new impacts.

Policy 4-2.2: Discourage non-local traffic from using neighborhood streets.

Consistent: As discussed previously, project-generated traffic coming from and going to the nearby residential areas would come from local residents. As the Modified Project would result in a decrease in daily trips, there would be no new impacts.

Goal 4-9: Promote walking.

Policy 4-9.1: Install sidewalks where they are missing, and make improvements to existing sidewalks for accessibility purposes. Priority should be given to needed sidewalk improvement near schools and activity centers. Provide wider sidewalks in areas with higher pedestrian volumes.

Consistent: There are existing concrete sidewalks along the Project Site frontage adjacent to Alder Avenue and portions of Project Site frontage along Renaissance Parkway. Consistent with the Previously Analyzed Project, the Modified Project would provide concrete sidewalks for the remainder of the frontage.

Policy 4-9.2: Require sidewalks and parkways on all streets in new development.
Consistent: As stated previously, the Proposed Project would provide missing sidewalks along Project Site frontage.

Policy 4.9-3: Provide pedestrian-friendly and safety improvements, such as crosswalks and pedestrian signals, in all pedestrian activity areas.
Policy 4-9.4: Accommodate pedestrians and bicyclists — in addition to automobiles — when considering new development projects.
Policy 4-9.6: Encourage new development to provide pedestrian paths through projects, with outlets to adjacent collectors, secondaries, and arterial roadways.

Consistent: As stated in the Addendum, the RSP project incorporated pedestrian, bicycle, and transit systems under its circulation element to provide opportunities for alternative forms of transportation. The pedestrian system will promote safe non-vehicular movement throughout the RSP project area. Currently, the RSP project is served by Omnitrans bus line. As bus routes change and development occurs within the RSP project area, the accommodation of transit lines and bus stops will be coordinated with Omnitrans. The Modified Project be developed in accordance with the Design Guidelines set forth in the RSP document. Moreover, the Modified Project would provide pedestrian facilities throughout the Project Site.

The Modified Project would not conflict with a program, plan, ordinance or policy addressing the circulation system. Therefore, the modifications to the Project will not introduce any new significant impacts.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Not Previously Analyzed in the Addendum. The Trip Generation Comparison includes a vehicle miles traveled (VMT) Screening Assessment for the Modified Project. The VMT screening assessment has been prepared in accordance with City Traffic Impact Analysis (TIA) Guidelines, which were developed based on guidance from the Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA. The City TIA Guidelines identify screening criteria for certain types of projects that typically reduce VMT and may be presumed to result in a less than significant VMT impact. To qualify for VMT screening, the project need only satisfy one of the following screening criteria:

- Projects located within a Transit Priority Area (TPA)
  - Projects located within one-half mile radius of a major transit stop or high-quality transit corridor
- Projects located within a low VMT area
  - Site location can be verified with the web-based or map-based VMT Screening Tool
- Project Type Screening
  - Local serving land use
  - Projects which generate less than net new 110 daily vehicle trips (ADT)

The Project Type Screening criteria identify the several types of projects that may be presumed to have a less than significant VMT impact as they are local serving and thus can

be expected to reduce VMT or they are small enough to have a negligible impact. Local-serving hotels (e.g., non-destination hotels) fall under this category. Therefore, the Modified Project would have a less than significant VMT impact, and no mitigation measures are required.

c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Substantial Change from Previous Analysis. Consistent with Section 4.15 of the Addendum, all proposed improvements within the public-right-of- ways would be installed in conformance with City standards. The City of Rialto would review the Modified Project's application materials and would ensure that hazardous transportation design features would not be introduced by the Project prior to project approval. Driveway widths will accommodate Project traffic, and traffic control devices (signals and stop signs) are provided where necessary for entering and exiting the site. No incompatible uses (e.g., farm equipment) are located in proximity to the Project Site. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

d) *Result in inadequate emergency access?*

No Substantial Change from Previous Analysis. As discussed in Section 4.15 of the Addendum, the Previously Analyzed Project would provide adequate emergency access along abutting roadways during temporary construction activities within the roadways. Emergency access would also be required under the Modified Project. The Modified Project would provide adequate parking spaces, so project vehicles would not park off-site and would not interfere with the use of public roads. There would be no change to the proposed on-site circulation nor the project trip distribution. The modifications to the Project will not introduce any new impacts to emergency services.

XVIII. TRIBAL CULTURAL RESOURCES

		New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
a)	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is?				
	i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or?				X

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?				X

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is?

i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or?*

ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

No Substantial Change from Previous Analysis. As was discussed in Section 4.5 of the Addendum, implementation of the Previously Analyzed Project would not have a substantial effect on tribal cultural resources. As the proposed area of disturbance remains the same as that of the Previously Analyzed Project, the Modified Project will not introduce any new impacts to tribal cultural resources. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

XIX. UTILITIES AND SERVICE SYSTEMS

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects?

No Substantial Change from Previous Analysis. As was discussed in Section 4.17 of the Addendum, the Previously Analyzed Project's retail uses are not expected to cause exceedance of the total wastewater treatment demand of the RSP at build out. In addition, the Previously Analyzed Project would be required to include a stormwater collection system which would route stormwater into the existing storm drain located within Renaissance Parkway. Consistent with the Previously Analyzed Project, the Modified Project would be required to comply with all applicable federal, State, and local regulations related to the incorporation of detention and/or stormwater treatment features, including compliance with the NPDES and WQMP requirements, to ensure that the runoff from the Project would be less than the existing condition 100-year peak flow rates. The Modified Project would decrease the number of rooms for the proposed hotel (Phase 3). Given that the Modified Project would be less water-intensive, generate less wastewater, and have less demand for natural gas and electricity than the Previously Analyzed Project, demands on utilities are anticipated to be less than was previously analyzed in the Addendum. There

would be no changes to the utility connections proposed under the Previously Analyzed Project. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Substantial Change from Previous Analysis. As was discussed in Section 4.17 of the Addendum, sufficient water supplies are available to serve the Previously Analyzed Project. Any impacts are considered less than significant. The Modified Project will have a lower water demand than the Previously Analyzed Project due to the decrease in the number of rooms. Consistent with the Addendum findings, impacts would be less than significant, and no mitigation is required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Substantial Change from Previous Analysis. As was discussed in Section 4.17 of the Addendum, the Previously Analyzed Project is not expected to exceed projected demand or cause exceedance of the total wastewater treatment demand of the RSP at build out. The Modified Project would result in a decrease in the number of hotel rooms, thereby generating less wastewater. Consistent with the Addendum findings, impacts from the Modified Project would be less than significant, and no mitigation is required.

d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Substantial Change from Previous Analysis. As was discussed in Section 4.17 of the Addendum, the entire RSP and Previously Analyzed Project would be served by a landfill with sufficient capacity to accommodate the Project's solid waste disposal needs. The Modified Project would decrease the number of rooms for the proposed hotel on Parcel 3 from 100 to 95. Therefore, the Modified Project would generate less solid waste than the Previously Analyzed Project. Consistent with the Addendum findings, impacts from the Modified Project would be less than significant, and no mitigation is required.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

No Substantial Change from Previous Analysis. Consistent with the Previously Analyzed Project, the Modified Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Any impacts would be less than significant. The Modified Project would generate less solid waste given the decrease in the number of rooms. Consistent with the Addendum findings, impacts from the Modified Project would be less than significant, and no mitigation is required.

XX. WILDFIRE

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Impair an adopted emergency response plan or emergency evacuation plan?				
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary ongoing impacts to the environment?				
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				

a) Impair an adopted emergency response plan or emergency evacuation plan?

Not Previously Analyzed in Addendum. Consistent with Section 4.15 of the Addendum, the Proposed Project would provide adequate emergency access along abutting roadways during temporary construction activities within the roadways. The Modified Project would provide adequate parking spaces, so project vehicles would not park off-site and would not interfere with the use of public roads. There would be no change to the proposed on-site circulation nor the project trip distribution. The modifications to the Project will not introduce any new impacts to emergency response or emergency evacuation.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Not Previously Analyzed in Addendum. As discussed in Section 4.7 of the Addendum, the RSP project area, which includes the Project Site, is within an area categorized as having a "Low" risk from wildland fires.[8] In addition, the RSP project area is not located near an urban/wildlands interface area. The Project Site is currently surrounded by roadways and a mix of developed and undeveloped land. The nearest wildlands are the San Bernardino Mountains, which are located approximately 3.0 miles northeast of the Project Site. Accordingly, the Modified Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary ongoing impacts to the environment?

Not Previously Analyzed in Addendum. As discussed previously, the Project Site is within an area categorized as having a low risk from wildland fires. The Modified Project does not include or require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Any roads and utilities will be installed in accordance with the City of Rialto requirements. The modifications to the Project will not introduce any new impacts from high fire hazards.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Not Previously Analyzed in Addendum. As discussed previously, the Project Site is within an area categorized as having a low risk from wildland fires. Based on this information, the Modified Project would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Less than significant impacts are anticipated, and no mitigation measures are required.

[8] Hogle-Ireland, Inc. City of Rialto General Plan. Adopted in 2010.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:

	New Significant Impact	More Severe Impacts	New Ability to Substantially Reduce Significant Impact	No Substantial Change from Previous Analysis
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				X

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No Substantial Change from Previous Analysis. As was discussed in Section 4.19 of the Addendum, implementation of the Previously Analyzed Project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal. The Addendum concluded that no prehistoric or historic sites are currently present within the Project Site. The area of proposed disturbance under the Modified Project has not expanded beyond that of the Previously Analyzed Project. In addition to any mitigation measures, standard conditions will apply to the Modified Project. Any impacts are considered less than significant with mitigation and standard conditions incorporated. There are no new mitigation measures that are required as a result of the modifications to the Project.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

No Substantial Change from Previous Analysis. Cumulative impacts are defined as two or more individual affects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

As was discussed in Section 4.19 of the Addendum, the Previously Analyzed Project would not make a new substantial contribution to cumulatively considerable impacts. Consistent with the Previously Analyzed Project, standard conditions and mitigation measures will apply to the Modified Project. As summarized in this document, the Modified Project would not result in any new significant impacts. There are no new mitigation measures that are required as a result of the modifications to the Project.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

No Substantial Change from Previous Analysis. With required implementation of mitigation measures identified in this document, construction and operation of the Modified Project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings, either directly, or indirectly. Any impacts will be less than significant. There are no new mitigation measures that are required as a result of the modifications to the Project.

V. EARLIER ANALYSES

T & B Planning, Inc. Addendum to the Renaissance Specific Plan Final Environmental Impact Report. July 25, 2017.

VI. REFERENCES

California Department of Conservation, Important Farmland Finder, http://maps.conservation.ca.gov/ciff/ciff.html. Accessed June 2025.

California Department of Toxic Substance Control. EnviroStor. Accessed June 2025.

City of Rialto. Renaissance Specific Plan Amendment: Final Screencheck Draft. July 2018.
City of Rialto General Plan. December 2010. https://www.yourrialto.com/DocumentCenter/View/1494/2010-General-Plan

VII. PROJECT-SPECIFIC REFERENCES

Blue Engineering. Preliminary Hydrology Report. August 2024, Revised July 2025.

Blue Engineering. Preliminary Water Quality Management Plan. September 2024, Revised July 2025.

Ganddini Group, Inc. Renaissance & Alder Commercial Project Trip Generation Comparison. September 10, 2025.

RESOLUTION NO. 2026-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING CONDITIONAL DEVELOPMENT PERMIT NO. 2025-0003 ALLOWING THE DEVELOPMENT AND OPERATION OF A 56,317 SQUARE FOOT 4-STORY 95-ROOM HOTEL ON 2.68-ACRES OF LAND (APN'S: 0240-191-50 & -51) LOCATED ON THE NORTH SIDE OF RENAISSANCE PARKWAY APPROXIMATELY 275 FEET WEST OF ALDER AVENUE WITHIN THE FREEWAY COMMERCIAL (FC) LAND USE DISTRICT OF THE RENAISSANCE SPECIFIC PLAN.

WHEREAS, the applicant, Paradise Lake LLC., proposes to develop and operate a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements ("Project") on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue ("Site"); and

WHEREAS, pursuant to Table 3-2 (General Permitted Uses) of the Renaissance Specific Plan, the Project requires a Conditional Development Permit, and the applicant has agreed to apply for Conditional Development Permit No. 2025-0003 ("CDP No. 2025-0003"); and

WHEREAS, the Project will consist of a 4-story building inclusive of 56,317 square feet with 95 hotel-rooms, centrally located elevators, and stairs cases at opposing ends of the structure, a lobby/lounge area, a food prep and breakfast dining area, a fitness center, other internal staff support areas, a porte cochere and related site improvements such as fencing, paving, and landscaping on the Site; and

WHEREAS, in conjunction with the Project, the developer has applied for Precise Plan of Design No. 2025-0003 to allow the development the Project on the Site ("PPD No. 2025-0003"); and

WHEREAS, on July 1, 2026, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on CDP No. 2025-0003 and PPD No. 2025-0003, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed CDP No. 2025-0003 and PPD No. 2025-0003; and closed the public hearing; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Rialto as follows:

SECTION 1. The Planning Commission hereby specifically finds that all of the facts set forth in the recitals above of this Resolution are true and correct and incorporated herein.

SECTION 2. The Project was previously analyzed under an Addendum (Environmental Assessment Review No. 15-47) to the 2010 certified Renaissance Specific Plan Final Environmental Impact Report in accordance with the California Environmental Quality Act (CEQA) and a CEQA Consistency Analysis has been prepared for the Project. Based upon the foregoing, the Project will not result in any new impacts that were not previously identified in the earlier Addendum and no new environmental documentation is required.

SECTION 3. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to CDP No. 2025-0003, including written staff reports, verbal testimony, site plans, other documents, and the conditions of approval stated herein, the Planning Commission hereby determines that CDP No. 2025-0003 satisfies the requirements of Section 18.66.020 of the Rialto Municipal Code pertaining to the findings which must be made precedent to granting a conditional development permit. The findings are as follows:

1. The proposed use is deemed essential or desirable to provide a service or facility which will contribute to the convenience or general well-being of the neighborhood or community; and

This finding is supported by the following facts:

The applicant, Paradise Lake, LLC, proposes to develop and operate a 4-story 95-room hotel located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue. The Project is located adjacent to an existing Beyond Food Mart gas station at a SR-210 highway Alder Avenue off-ramp within an industrial area and is anticipated to be a benefit not only to commuters passing through but also to the local area by providing an additional lodging alternative at a convenient location. The Project will provide a more diverse economic base for the surrounding area and will provide additional improvement to architecturally enhance the area.

2. The proposed use will not be detrimental or injurious to health, safety, or general welfare of persons residing or working in the vicinity; and

This finding is supported by the following facts:

The project site is bound by State Route 210 highway on the north and bound by Renaissance Parkway to the south. To the south, across Renaissance Parkway, is a San Gabriel Valley Water facility. To the west of the project site is vacant land. To the east of the project site is an existing gas station with convenience market and carwash. There are no sensitive uses in the nearby area. The Project is consistent with the underlying Freeway Commercial (FC) land use district. In addition, the Project has been reviewed by the City staff for compliance with all health, safety, and design requirements to ensure the Project will significantly enhance the aesthetics of the local community.

3. The site for the proposed use is adequate in size, shape, topography, accessibility and other physical characteristics to accommodate the proposed use in a manner compatible with existing land uses; and

This finding is supported by the following facts:

The Project site is a relatively flat and irregular-shaped piece of land comprised of two (2) parcels approximately 2.68 acres in size with approximate dimensions of 360 feet (north-south) by 320 feet (east-west). The property is primarily vacant, covered only by natural grasses and shrubs, except for an existing paved drive aisle and turn-about connecting the adjacent parcels to the two existing driveways along the Renaissance Parkway frontage. The site will be able to adequately accommodate a 4-story 95-room hotel, parking, lighting, and landscaping that is compatible with existing land uses.

4. The site has adequate access to those utilities and other services required for the proposed use; and

This finding is supported by the following facts:

The Project site is portion of a previously analyzed project that included a subdivision and the Phase 1 development of a gas station along with off-site street improvements along both Renaissance Parkway and Alder Avenue. The development of the existing gas station included installation of utilities and other services, and the required utilities for the proposed Project will also be installed through main water, electric, sewer, and other utility lines.

5. The proposed use will be arranged, designed, constructed, and maintained so as it will not be injurious to property or improvements in the vicinity or otherwise be inharmonious with the General Plan and its objectives, or any zoning ordinances; and

This finding is supported by the following facts:

The use is consistent with the underlying Freeway Commercial (FC) land use district of the Renaissance Specific Plan. The Project will feature high-quality exteriors designed in compliance with the City's Design Guidelines. Landscaping has been abundantly incorporated into the site including perimeter landscape planters containing trees spaced every thirty (30) linear feet, shrubs and ground covers.

6. Any potential adverse effects upon the surrounding properties will be minimized to every extent practical and any remaining adverse effects shall be outweighed by the benefits conferred upon the community or neighborhood as a whole.

This finding is supported by the following facts:

The Project's effects will be minimized through the implementation of the Conditions of Approval contained herein, implementation of the Mitigation Measures of the Addendum to the Renaissance Specific Plan EIR attached hereto, and the through the implementation of Conditions of Approval imposed by the Planning Commission on the Precise Plan of Design, such as extensive landscaping, decorative paving, and enhanced architectural features. The Project will meet the development criteria of the FC land use district and the design criteria of the Renaissance Specific Plan. There are no sensitive uses in the nearby area. Therefore, no potential adverse effects are anticipated and the Project will benefit the community as a whole.

SECTION 4. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to CDP No. 2025-0003, including written staff reports, verbal testimony, site plans, other documents, and the conditions of approval stated herein, CDP No. 2025-0003 is granted to Paradise Lake LLC. in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. The applicant is granted CDP No. 2025-0003 allowing the development and operation a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan, as shown on the plans submitted to the Planning Division on April 30, 2026, and as approved by the Planning Commission. If the Conditions of Approval specified herein are not satisfied or otherwise completed, the project shall be subject to revocation

2. City inspectors shall have access to the site to reasonably inspect the site during normal working hours to assure compliance with these conditions and other codes.

3. The applicant shall indemnify, protect, defend, and hold harmless, the City of Rialto, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (collectively, the "City Parties"), from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative or adjudicatory in nature), and alternative dispute resolutions procedures (including, but not limited to arbitrations, mediations, and other such procedures), (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or

annul, the any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the Project (collectively, the "Entitlements"), whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivision Map Act, Code of Civil Procedure Chapter 1085 or 1094.5, the California Public Records Act, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. This condition to indemnify, protect, defend, and hold the City harmless shall include, but not limited to (i) damages, fees and/or costs awarded against the City, if any, and (ii) cost of suit, attorneys' fees and other costs, liabilities and expenses incurred in connection with such proceeding whether incurred by applicant, Property owner, or the City and/or other parties initiating or bringing such proceeding (collectively, subparts (i) and (ii) are the "Damages"). Notwithstanding anything to the contrary contained herein, the Applicant shall not be liable to the City Parties under this indemnity to the extent the Damages incurred by any of the City Parties in such Action(s) are a result of the City Parties' fraud, intentional misconduct or gross negligence in connection with issuing the Entitlements. The applicant shall execute an agreement to indemnify, protect, defend, and hold the City harmless as stated herein within five (5) days of approval of CDP No. 2025-0003.

4. In accordance with the provisions of Government Code Section 66020(d)(1), the imposition of fees, dedications, reservations, or exactions for this Project, if any, are subject to protest by the applicant at the time of approval or conditional approval of the Project or within 90 days after the date of the imposition of the fees, dedications, reservations, or exactions imposed on the Project.

5. The developer shall satisfy all the required mitigation measures of the Addendum to the Renaissance Specific Plan Final EIR including fair-share contributions to transportation improvements identified in the project's Traffic Impact Analysis. The developer shall prepare a fair-share calculation acceptable to the City Engineer and pay fair-share contribution prior to permit issuance.

6. At all times, the tenant and/or the property owner shall ensure that vehicle stacking/queuing and circulation does not create a nuisance condition that negatively impacts general circulation on-site nor off site. The owner/operator shall implement traffic control measures as necessary to address and eliminate any impact, should they occur, or the Community Development Director or his/her designee may schedule the Conditional Development Permit for Planning Commission review.

7. The applicant shall obtain all necessary approvals and operating permits from all Federal, State, and local agencies and provide proof thereof to the City prior to the issuance of a Certificate of Occupancy.

8. The privileges granted by the Planning Commission pursuant to approval of this Conditional Development Permit are valid for one (1) year from the effective date of

approval. If the applicant fails to commence the project within one year of said effective date, this conditional development permit shall be null and void and any privileges granted hereunder shall terminate automatically. If the applicant or his or her successor in interest commence the project within one year of the effective date of approval, the privileges granted hereunder will continue inured to the property as long as the property is used for the purpose for which the conditional development permit was granted, and such use remains compatible with adjacent property uses.

9. Approval of CDP No. 2025-0003 will not become effective until the applicant has signed a statement acknowledging awareness and acceptance of the required conditions of approval contained herein

10. In the event, that any operation on the Site is found to be objectionable or incompatible with the character of the City and its environs due to excessive noise, excessive traffic, loitering, criminal activity or other undesirable characteristics including, but not strictly limited to, uses which are or have become offensive to neighboring property or the goals and objectives of the Freeway Commercial (FC) land use district of the Renaissance Specific Plan and the City's General Plan, the applicant shall address the issues within forty-eight (48) hours of being notified by the City

11. If the applicant fails to comply with any of the conditions of approval placed upon CDP No. 2025-0003 or PPD No. 2025-0003 the Planning Commission may initiate proceedings to revoke the conditional development permit in accordance with the provisions of Sections 18.66.070 through 18.66.090, inclusive, of the Rialto Municipal Code. CDP No. 2025-0003 may be revoked, suspended or modified in accordance with Section 18.66.070 of the Zoning Ordinance at the discretion of the Planning Commission if:

    a) The use for which such approval was granted has ceased to exist, been subsequently modified, or has been suspended for six (6) months or more;

    b) Any of the express conditions or terms of such permit are violated;

    c) The use for which such approval was granted becomes or is found to be objectionable or incompatible with the character of the City and its environs due to noise, loitering, criminal activity or other undesirable characteristics including, but not strictly limited to uses which are or have become offensive to neighboring property or the goals and objectives of the Freeway Commercial (FC) land use district, the Renaissance Specific Plan, and the City's General Plan.

12. Approval of CDP No. 2025-0003 will not become effective until the applicant has signed a statement acknowledging awareness and acceptance of the required conditions of approval contained herein.

SECTION 5. The Chairman of the Planning Commission shall sign the passage and adoption of this resolution and thereupon the same shall take effect and be in force.

PASSED, APPROVED AND ADOPTED this 1st day of July, 2026.

_____

MICHAEL E. STORY, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, _____ of the City of Rialto, do hereby certify that the foregoing Resolution No. ____ was duly passed and adopted at a regular meeting of the Planning Commission of the City of Rialto held on the ___st day of ____, 2026.

Upon motion of Planning Commissioner_____., seconded by Planning Commissioner ____, the foregoing Resolution No. ____was duly passed and adopted.

Vote on the motion:

AYES:

NOES:

ABSENT:

IN WITNESS WHEREOF, I have hereunto set my hand and the Official Seal of the City of Rialto this __st day of ___, 2026.

_____

KIMBERLY DAME, ADMINISTRATIVE ANALYST

RESOLUTION NO. 2026-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING PRECISE PLAN OF DESIGN NO. 2025-0003 ALLOWING THE DEVELOPMENT OF A 56,317 SQUARE FOOT 4-STORY 95-ROOM HOTEL ON 2.68-ACRES OF LAND (APN'S: 0240-191-50 & -51) LOCATED ON THE NORTH SIDE OF RENAISSANCE PARKWAY APPROXIMATELY 275 FEET WEST OF ALDER AVENUE WITHIN THE FREEWAY COMMERCIAL (FC) LAND USE DISTRICT OF THE RENAISSANCE SPECIFIC PLAN.

WHEREAS, the applicant, Paradise Lake LLC., proposes to develop and operate a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements ("Project") on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue ("Site"); and

WHEREAS, Pursuant to Section 18.65 of the Rialto Municipal Code, the Project requires a Precise Plan of Design, and the applicant has agreed to apply for Precise Plan of Design No. 2025-0003 ("PPD No. 2025-0003"); and

WHEREAS, in conjunction herewith, the applicant has submitted Conditional Development Permit No. 2025-0003 to operate a 56,317 square foot 4-story 95-room hotel on the Site; and

WHEREAS, on July 1, 2026, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, PPD No. 2025-0003, and CDP No. 2025-0003, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed PPD No. 2025-0003, and CDP No. 2025-0003; and closed the public hearing; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Rialto as follows:

SECTION 1. The Planning Commission hereby specifically finds that all of the facts set forth in the recitals above of this Resolution are true and correct and incorporated herein.

SECTION 2. The Project was previously analyzed under an Addendum (Environmental Assessment Review No. 15-47) to the 2010 certified Renaissance Specific Plan Final Environmental

Impact Report in accordance with the California Environmental Quality Act (CEQA) and a CEQA Consistency Analysis has been prepared for the Project. Based upon the foregoing, the Project will not result in any new impacts that were not previously identified in the earlier Addendum and no new environmental documentation is required.

SECTION 3. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to PPD No. 2025-0003, including written staff reports, verbal testimony, site plans, other documents, and the conditions of approval stated herein, the Planning Commission hereby determines that PPD No. 2025-0003 satisfies the requirements of Section 18.65.020E of the Rialto Municipal Code pertaining to the findings which must be made precedent to approving a Precise Plan of Design application. The findings are as follows:

1. The proposed development is in compliance with all city ordinances and regulations, unless in accordance with an approved variance; and

This finding is supported by the following facts:

The Project, as conditioned herein, will comply with all City ordinances and regulations, including those within the Renaissance Specific Plan. The Site has a General Plan land use designation of Specific Plan and a land use designation of Freeway Commercial (FC) within the Renaissance Specific Plan. Those designations allow for the development of a hotel with approval of a Precise Plan of Design and Conditional Development Permits, which have been filed in conjunction with this project. Additionally, the Project meets all of the required development standards of the FC land use district.

2. The site is physically suitable for the proposed development, and the proposed development will be arranged, designed, constructed, and maintained so that it will not be unreasonably detrimental or injurious to property, improvements, or the health, safety or general welfare of the general public in the vicinity, or otherwise be inharmonious with the City's General Plan and its objectives, zoning ordinances or any applicable specific plan and its objectives; and

This finding is supported by the following facts:

The zoning of the Project site is Freeway Commercial (FC) of the Renaissance Specific Plan. The project is consistent with the FC land use district zone, and the existing commercial uses surrounding the project site. There are no sensitive uses nearby the Site. In addition, the project has been reviewed by all of the Departments for compliance with all health, safety, and design requirements to ensure the project will significantly enhance the infrastructure and aesthetics of the local community.

3. The proposed development will not unreasonably interfere with the use or enjoyment of neighboring property rights or endanger the peace, health, safety or welfare of the general public; and

This finding is supported by the following facts:

The Project is proposed on a parcel that is primarily vacant, except for an existing paved drive aisle and turn-about connecting the adjacent parcels to the two existing driveways along the Renaissance Parkway frontage. The proposed Project is portion of a previously analyzed project that planned for a hotel up to 100 rooms so the Project will not result in any new significant environmental effects. There are no sensitive uses in the nearby area. Furthermore, features such as landscape buffering and headlight screening, property setbacks and on-site landscaping will serve to physically separate the use, mitigate any potential impacts and ensure that there is no interference with neighboring property rights, or any endanger to the peace, health, safety or welfare of the general public.

4. The proposed development will not substantially interfere with the orderly or planned development of the City of Rialto.

This finding is supported by the following facts:

The Project was previously analyzed under an Addendum (Environmental Assessment Review No. 15-47) to the 2010 certified Renaissance Specific Plan Final Environmental Impact Report in accordance with the California Environmental Quality Act (CEQA) and an analysis of consistency for the modified project has been prepared. The Project will not result in any new significant environmental effects. The development of the Project would include desirable improvements that will aesthetically enhance the appearance of the community. Therefore, any potential adverse effects are outweighed by the benefits conferred upon the community and neighborhood as a whole.

SECTION 4. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to PPD No. 2025-0003, including written staff reports, verbal testimony, site plans, other documents, and the conditions of approval stated herein, Paradise Lake LLC. is hereby granted PPD No. 2025-0003 to allow the development of develop and operate a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements ("Project") on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue ("Site") within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan.

SECTION 5. PPD No. 2025-0003 is granted to Paradise Lake LLC., in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. The approval is granted allowing the development a 56,317 square foot 4-story 95-room hotel with associated paving, landscaping, lighting, and drainage improvements on 2.68-acres of land (APN's: 0240-191-50 & -51) located on the north side of Renaissance Parkway approximately 275 feet west of Alder Avenue within the Freeway Commercial (FC) land use district of the Renaissance Specific Plan, as shown on the plans submitted to the Planning Division dated April 30, 2026, and as approved by the Planning Commission.

2. City inspectors shall have access to the site to reasonably inspect the site during normal working hours to assure compliance with these conditions and other codes.

3. The applicant shall indemnify, protect, defend, and hold harmless, the City of Rialto, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (collectively, the "City Parties"), from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative or adjudicatory in nature), and alternative dispute resolutions procedures (including, but not limited to arbitrations, mediations, and other such procedures), (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul, the any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the Project (collectively, the "Entitlements"), whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivision Map Act, Code of Civil Procedure Chapter 1085 or 1094.5, the California Public Records Act, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. This condition to indemnify, protect, defend, and hold the City harmless shall include, but not be limited to (i) damages, fees and/or costs awarded against the City, if any, and (ii) cost of suit, attorneys' fees and other costs, liabilities and expenses incurred in connection with such proceeding whether incurred by applicant, Property owner, or the City and/or other parties initiating or bringing such proceeding (collectively, subparts (i) and (ii) are the "Damages"). Notwithstanding anything to the contrary contained herein, the Applicant shall not be liable to the City Parties under this indemnity to the extent the Damages incurred by any of the City Parties in such Action(s) are a result of the City Parties' fraud, intentional misconduct or gross negligence in connection with issuing the Entitlements. The applicant shall execute an agreement to indemnify, protect, defend, and hold the City harmless as stated herein within five (5) days of approval of PPD No. 2025-0003.

4. In accordance with the provisions of Government Code Section 66020(d)(1), the imposition of fees, dedications, reservations, or exactions for this Project, if any, are subject to protest by the applicant at the time of approval or conditional approval of the Project or within 90 days after the date of the imposition of the fees, dedications, reservations, or exactions imposed on the Project.

5. The developer shall satisfy all the required mitigation measures of the Addendum to the Renaissance Specific Plan Final EIR including fair-share contributions to transportation improvements identified in the project's Traffic Impact Analysis. The developer shall prepare a fair-share calculation acceptable to the City Engineer and pay fair-share contribution prior to permit issuance.

6. The applicant shall submit an online Landscape Plan Review application for review of the on-site landscaping to the Planning Division prior to the issuance of building permits. The application shall include planting and irrigation plans, and the applicable review fee.

7. All landscape planting species shall comply with the approved Plant Palette of the Renaissance Specific Plan.

8. The applicant shall plant a substantial amount of trees, shrubs, and groundcover throughout all land on-site that is not covered by structures, walkways, parking areas, and driveways. Trees shall be planted a minimum of thirty (30) feet on-center, and all shrubs and groundcover shall be planted an average of three (3) feet on-center or less. All trees shall be minimum of fifteen (15) gallons in size upon initial planting, unless otherwise specified herein. At least fifty (50) percent of the trees shall consist of evergreen broadleaf trees, while the remaining percentage may consist of broadleaf deciduous trees and/or palm trees. All shrubs shall be a minimum of one (1) gallon in size, unless otherwise specified herein. All planter areas shall receive a minimum two (2) inch thick layer of brown bark, organic mulch, and/or decorative rock upon initial planting. Pea gravel and decomposed granite are not acceptable materials to use within planter areas. All planter areas on-site shall be permanently irrigated and maintained. The planting and irrigation shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

9. A minimum of one (1) twenty-four (24) inch box tree shall be installed every thirty (30) linear feet within the perimeter landscape planters. All on-site tree species shall consist of evergreen broadleaf trees. The trees shall be identified on the formal Landscape Plan submittal prior to the issuance of building permits. All landscaping shall be maintained in good condition at all times.

10. All ground mounted equipment and utility boxes, including transformers, fire-department connections, backflow devices, etc. shall be surrounded by a minimum of two (2) rows of five (5) gallon shrubs spaced a maximum of twenty-four (24) inches on-center, prior to the issuance of a Certificate of Occupancy.

11. All planting and irrigation shall be installed on-site in accordance with the approved landscape plans and permit prior to the issuance of a Certificate of Occupancy. The installation of the planting and irrigation shall be certified in writing by the landscape architect responsible for preparing the landscape plans prior to the issuance of a Certificate of Occupancy.

12. All planting and irrigation shall be installed on-site in accordance with the approved landscape plans and permit prior to the issuance of a Certificate of Occupancy. The installation of the planting and irrigation shall be certified in writing by the landscape architect responsible for preparing the landscape plans prior to the issuance of a Certificate of Occupancy.

13. Any wrought-iron fencing and/or sliding gates shall be painted black prior to the issuance of a Certificate of Occupancy.

14. All signage shall comply with regulations of Section 5 (Signs) of the Renaissance Specific Plan.

15. There shall be no roof-mounted equipment extending above the parapet wall of the building. The roof-mounted equipment shall be identified on an elevation section within the formal building plan check submittal prior to the issuance of building permits.

16. All downspouts on all elevation shall be routed through the building. Internal downspouts shall be identified within the formal building plan check submittal prior to the issuance of the building permits.

17. The applicant shall illuminate all walkways, passageways, and locations where pedestrians are likely to travel with a minimum of 1.5-foot candles (at surface level) of light during the hours of darkness. Lighting shall be designed/constructed in such a manner as to automatically turn on at dusk and turn off at dawn.

18. The applicant shall illuminate all alleyways, driveways, and uncovered parking areas with a minimum of 1.5-foot candles (at surface level) of light during the hours of darkness. Lighting shall be designed/constructed in such a manner as to automatically turn on at dusk and turn off at dawn.

19. The applicant shall illuminate all loading dock areas, truck well areas, and delivery areas with a minimum of 2.0 foot-candles (at surface level) of light during the hours of darkness. Lighting shall be designed/constructed in such a manner as to automatically turn on at dusk and turn off at dawn.

20. The applicant shall design/construct all lighting fixtures and luminaries, including supports, poles and brackets, in such a manner as to resist vandalism and/or destruction by hand.

21. The applicant shall provide an illuminated channel letter address prominently placed on the building to be visible to the front of the location and if applicable, visible from the main street to which they are located (e.g. commercial building facing the interior of the property would require two address signs if located adjacent to a roadway), prior to the issuance of a Certificate of Occupancy.

22. At the discretion of the Rialto Police Department, the applicant shall install exterior security cameras at the location that cover the entire Site, prior to the issuance of a Certificate of Occupancy. The security cameras shall be accessible to the Rialto Police Department via FusionONE web application.

23. The applicant shall install Knox boxes immediately adjacent to the main entrance of the building and at least one (1) rear entrance on the building to facilitate the entry of safety personnel. The Knox boxes shall be installed in such a manner as to be alarmed, resist vandalism, removal, or destruction by hand, and be fully recessed into the building. The Knox boxes shall be equipped with the appropriate keys, for each required location, prior to the first day of business. The Knox-Box placement shall be shown on the formal building plan review submittal prior to the issuance of a building permit.

24. The applicant shall prominently display the address on the building rooftop to be visible to aerial law enforcement or fire aircraft. Specifications to be followed for alphanumeric characters are as follows: Three (3) foot tall and six (6) inches thick alphanumeric characters. The alphanumeric characters shall be constructed in such a way that they are in stark contrast to the background to which they are attached (e.g. white numbers and letters on a black background), and resistant weathering that would cause a degradation of the contrast.

25. The applicant shall provide an audible alarm within the building, prior to the issuance of a Certificate of Occupancy. The building shall be alarmed in such a way as to emit a continuous audible notification until reset by responsible personnel (e.g. alarmed exit device / crash bar).

26. The Developer or General Contractor shall identify each contractor and subcontractor hired to work at the job site on the Contractor Sublist form and return it to the Business License Division with a Business License application and the Business License tax fee based on the Contractors tax rate for each contractor listed on the form.

27. The applicant or General Contractor shall identify each contractor and subcontractor hired to work at the job site on a Contractor Sublist form and return it to the Business License Division with a Business License application and the Business License tax fee based on the Contractors tax rate for each contractor.

28. Prior to issuance of a Certificate of Occupancy, the Lessor of the property shall pay a business license tax based on the Rental Income Property tax rate.

29. The applicant shall comply with all conditions of approval for PPD No. 2021-0025 to the satisfaction of the City Engineer, prior to the issuance of a Certificate of Occupancy.

30. The applicant shall remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.

31. The applicant shall obtain a City of Rialto Encroachment Permit for any improvements/dry utility improvement construction within the public right-of-way.

32. The project shall submit civil engineering design plans, reports and/or documents, prepared by a registered/licensed civil engineer, for review and approval by the City Engineer per the current submittal requirements, prior to the indicated threshold or as required by the City Engineer.
    The first submittal shall consist of, but is not limited to the following:
    a. PRECISE GRADE W/ EROSION CONTROL PLAN (prior to grading permit issuance)
    b. PUBLIC IMPROVEMENT PLAN – plans may include: Street, Signing & Striping, Landscape & Irrigation, traffic signal , etc. (prior to off-site construction permit issuance, whichever occurs first)
    c. FINAL DRAINAGE STUDY (prior to grading plan approval)
    d. FINAL WQMP (prior to grading plan approval)
    e. LEGAL DOCUMENTS (e.g. EASEMENT(S), DEDICATION(S), LOT LINE ADJUSTMENT, LOT MERGER, VACATION, etc.) (prior to Building Permit Issuance or Occupancy Release).
    f. AS-BUILT/RECORD DRAWINGS for all plans (prior to occupancy approval)

33. The applicant is responsible for requesting address assignment from the Planning Division for any new building, irrigation water meter and electrical pedestal. Addresses for irrigation meters must be based upon approved civil plans. Addresses for electrical pedestals must be based upon approved SCE plans. The main building address shall be included on Precise Grading Plans and Building Plan set along with the PPD number. The electrical meter pedestal addresses (single or dual) shall be included in the public improvement plans.

34. The applicant shall provide the City in digital format of any improvement plan upon approval by the City Engineer, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior approval by the City Engineer

35. The applicant shall construct asphalt concrete paving for streets in two separate lifts. The final lift of asphalt concrete pavement shall be postponed until such time that on-site construction activities are complete, as may be determined by the City Engineer. Paving of streets in one lift prior to completion of on-site construction will not be allowed unless prior authorization has been obtained from the City Engineer. Completion of asphalt

concrete paving for streets prior to completion of on-site construction activities, if authorized by the City Engineer, will require additional paving requirements prior to acceptance of the street improvements, including, but not limited to: removal and replacement of damaged asphalt concrete pavement, overlay, slurry seal, or other repairs, as required by the City Engineer.

36. The applicant shall repair all street cuts for utilities in accordance with City Standard SC-231 within 72 hours of completion of the utility work; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accordance with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.

37. The applicant shall backfill and repair any utility trenches or other excavations within existing asphalt concrete pavement of off-site streets required by the proposed development in accordance with City of Rialto Standard Drawings. The developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets as required by and at the discretion of the City Engineer, including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e., Fontana Water Company, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets required by the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.

38. The applicant shall obtain a separate Off-Site Construction Permit for each type of improvement within the public right-of-way, including street, dry utility, and wet utility (RWS only). To expedite and coordinate all improvements in the public right-of-way, the applicant shall submit a multi-phase master traffic control plan that includes all phases of construction (e.g., sewer, water, overhead, underground, etc.) prior to permit issuance. For simplicity, the Off-Site Construction Permits will replace individual Encroachment Permits typically obtained by the developer's contractor.

39. The applicant shall replace any landscaping that fails during the one-year landscape maintenance period with similar plant material to the satisfaction of the City Engineer and shall be subject to a subsequent one-year landscape maintenance period. All median, applicable landscape easement, and parkway landscaping shall be guaranteed for a period of one year from the date of acceptance by the City Engineer acceptance. The applicant must contact the City of Rialto Landscape Contract Specialist at (909) 820-2602 to confirm a full twelve (12) months' time of non-interrupted ongoing maintenance.

40. The applicant shall install City approved deep root barriers for all proposed trees within the public right-of-way and within 10 feet of the public sidewalk and/or curb in accordance with the Public Works Landscape and Irrigation Guidelines or as approved by the City Engineer.

41. In accordance with Chapter 15.32 of the City of Rialto Municipal Code, all existing and new electrical distribution lines of sixteen thousand volts or less and overhead service drop conductors, and all telephone, television cable service, and similar service wires or lines, which are on-site, abutting, and/or transecting, shall be installed underground. Utility undergrounding shall extend to the nearest off-site power pole. This may require undergrounding beyond the project limits on Willow Avenue to prevent any existing poles to remain or new poles to be placed for guy wire purposes along the project frontage. New power poles shall not be installed unless otherwise approved by the City Engineer. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Grading Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.

42. In accordance with City Ordinance No. 1589, adopted to preserve newly paved streets, all street and/or trench cuts in street newly paved or slurry will be subject to moratorium street repair standards as referenced in Section 11.04.145 of the Rialto Municipal Code. Contact the Public Works Department for a list of streets subject to the moratorium.

43. The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 4 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. If an alternative pavement section is proposed, the proposed pavement section shall be designed by a California registered Geotechnical Engineer using "R" values from the project site and submitted to the City Engineer for approval.

44. The applicant shall provide construction signing, lighting, and barricading shall be provided during all phases of construction as required by City Standards or as directed by the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 Temporary Traffic Control of the 2014 California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.

45. Development of the site is subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Permit for the City of Rialto, issued by the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2024-0001. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices (BMPs) in accordance with the Model Water Quality Management Plan (WQMP) approved for use for the Santa Ana River Watershed.

The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval.

46. The public street improvements outlined in these conditions of approval are intended to convey to the developer an accurate scope of required improvements, however, the City Engineer reserves the right to require reasonable additional improvements as may be determined during the review and approval of street improvement plans required by these conditions.

47. Prior to street improvement plan approval, the applicant shall dedicate additional right-of-way along the frontage of Renaissance Parkway as may be required to provide a property line at ultimate half street right-of-way of 54 feet in accordance with the Renaissance Specific Plan.

48. Prior to street improvement plan approval, the applicant shall provide a 10-foot-wide landscape easement behind the ultimate half street right of way of 54 feet.

49. Prior to grading plan approval, the applicant shall submit a final hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. For all stormwater runoff falling on the site, on-site retention or other facilities approved by the City Engineer shall be required to contain the increased stormwater runoff generated by the development of the property. Hydrology studies shall be prepared in accordance with the San Bernardino County Hydrology Manual and Rialto drainage criteria. Final retention basin sizing and other stormwater runoff mitigation measures shall be determined upon review and approval of the hydrology study by the City Engineer and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The volume of increased stormwater runoff to retain on-site shall be determined by comparing the existing pre-developed condition and proposed developed condition, using the 100-year frequency storm.

50. Prior to grading plan approval, direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.

51. Prior to grading plan approval, a geotechnical/soils report prepared by a California registered Geotechnical Engineer shall be required for and incorporated as an integral part of the grading plan for the proposed development. The geotechnical report shall include a section on infiltration testing. A digital copy (PDF) of the Geotechnical/Soils Report

shall be submitted to the Engineering Division with the first submittal of the Precise Grading plan.

52. Prior to grading plan approval, submit a Final Water Quality Management Plan identifying site-specific Best Management Practices (BMPs) in accordance with the Model Water Quality Management Plan (WQMP) approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the precise grading plan. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP guidance document and FWQMP.

53. Prior to grading plan approval, a Notice of Intent (NOI) to comply with the California General Construction Stormwater Permit (Water Quality Order 2022-0057-DWQ as modified September 1, 2025) is required via the California Regional Water Quality Control Board online SMARTS system. A copy of the executed letter issuing a Waste Discharge Identification (WDID) number shall be provided to the City Engineer. The developer's contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP) as required by the General Construction Permit. All appropriate measures to prevent erosion and water pollution during construction shall be implemented as required by the SWPPP.

54. Prior to issuance of grading permit or on-site construction permit, the applicant shall submit a precise grading plan prepared by a California registered civil engineer to the Engineering Division for review and approval by the City Engineer. The plan shall conform to the requirements of the California Building Code for review and approval.

55. Prior to issuance of grading permit or on-site construction permit, the applicant shall apply for annexation of the underlying property into City of Rialto Landscape and Lighting Maintenance District No. 2 ("LLMD 2"). An application fee of $5,000 shall be paid at the time of application. Annexation into LLMD 2 is a condition of acceptance of any new median, landscape easement, and/or parkway landscaping in the public right-of-way, or any new public street lighting improvements conditioned on the project and to be maintained by the City of Rialto post construction.

56. Prior to issuance of grading permit or on-site construction permit, the applicant shall submit a Precise Grading Plan prepared by a California registered Civil Engineer to the Engineering Division for review and approval by the City Engineer. The plan shall conform to the requirements of the California Building Code for review and approval.

57. Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. Tan-colored perimeter screened fencing b. Contractor information signage including contact information along [Street Name] and [Street Name] c. Post dust control signage with the following verbiage: Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, Please call the AQMD at 1-800-CUT-SMOG.

58. Prior to issuance of encroachment permit or off-site construction permit, all public improvement plans must be submitted and approved by the City Engineer.

59. Prior to issuance of a building permit or off-site construction permit, whichever occurs first, the applicant shall submit street improvement plans prepared by a registered California civil engineer to the Engineering Division for review. The street improvement plans shall be approved concurrently with any streetlight, landscape and irrigation, and traffic signal plans unless otherwise approved by the City Engineer.

60. Prior to issuance of building permit or off-site construction permit, whichever comes first, the applicant shall submit traffic striping and signage plans prepared by a California registered civil engineer or traffic engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements to the satisfaction of the City Engineer.

61. Prior to issuance of building permit or off-site construction permit, whichever comes first, the applicant shall submit traffic signal modification plans prepared by a California registered civil engineer or traffic engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements to the satisfaction of the City Engineer. The traffic signal modifications shall include new or upgraded video detection system and new or upgraded battery backup system.

62. Prior to issuance of building permit or off-site construction permit, whichever occurs first, submit off-site landscaping and irrigation system improvement plans for review and approval concurrently with street improvement plan submittal to the Public Works Department. The landscaping and irrigation improvements shall be as follows: along project frontage from the westerly project boundary to Alder Avenue, along the west side of Alder Avenue to the 210 Freeway eastbound off-ramp, and along the southside of Renaissance Parkway from the westerly property line of the water quality/detention basin (APN 0240-191-52) to Alder Avenue. The median irrigation system, parkway irrigation system, and applicable Specific Plan required landscape easement irrigation system shall be separately metered from the on-site private irrigation to facilitate separate utility bill payment by the City after the required one-year maintenance period via the Landscape and Lighting Maintenance District No. 2. The off-site landscape and irrigation plans must show separate electrical and water meters to be annexed into LLMD2 via a City Council public hearing process as well as a separate irrigation lateral. Use of an existing LLMD2 water meter and electrical pedestal is encouraged. The Landscape and Irrigation plans shall be approved concurrently with the Street Improvement plans, including the median portion, applicable easement portion, and/or parkway portion. The landscaping architect must contact the City of Rialto Landscape Contract Specialist at (909) 820-2602 to ensure all landscape and irrigation guidelines are met prior to plan approval. Electrical and water irrigation meter pedestals must not be designed to be installed at or near street intersections or within a raised median to avoid burdensome traffic control set-up during ongoing maintenance. The off-site Landscape and Irrigation plans shall be designed in accordance

with the Public Works Landscape Maintenance District Guidelines. Alternatively, a Landscape Maintenance Agreement may be required as determined by the City Engineer.

63. Prior to occupancy approval, the applicant shall complete all required traffic signal modifications at the intersection of Renaissance Parkway and the main driveway entrance , to the satisfaction of the City Engineer. Improvements shall include, but are not limited to, video detection upgrades, Battery Backup System (BBS) upgrades, and ADA-compliant curb ramps for the entire intersection.

64. Prior to issuance of building permit, the precise grading plans shall be approved by the City Engineer.

65. Prior to issuance of building permit, the applicant shall submit a rough grade certification, engineered fill certification and compaction report pad elevation certifications for all building pads in conformance with the approved precise grading plan, to the Engineering Division Trenching for footings or construction of any building foundation is not allowed until the certifications have been submitted for review and approval by the City Engineer.

66. Prior to issuance of building permit, the applicant shall submit a Public Improvement Agreement (PIA) and the required security to the Engineering Division for review and acceptance.

67. Prior to issuance of a building permit, the applicant shall submit a Lot Line Adjustment, to the Engineering division for review and approval and recordation with the San Bernardino County Recorder's office.

68. Prior to occupancy approval, the applicant shall complete the LLMD2 annexation process. Due to the required City Council Public Hearing action, the annexation process takes months and as such the developer is advised to apply for Special District annexation as early-on in the in the process to avoid any delays with permit issuance.

69. Prior to occupancy approval, the applicant shall replace all damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and streetlights, associated with the proposed development shall be replaced as required by the City Engineer prior to issuance of a Certificate of Occupancy.

70. Prior to occupancy approval, all public improvements shall be constructed to City standards subject to the satisfaction of the City Engineer.

71. Prior to occupancy approval, the applicant shall reconstruct any broken, chipped, or unsatisfactory sidewalks, curbs, gutters, pavement, and landscaping along the entire project frontage, in accordance with the Renaissance Specific Plan and the City of Rialto Standard Drawings, as required by the City Engineer, prior to the issuance of a Certificate of Occupancy. The removal and reconstruction of improvements shall be identified on the street improvement plans, prior to issuance of off-site construction permits.

72. Prior to occupancy approval, the applicant shall install "No Stopping Anytime" R26A(S)(CA) signage along the entire project frontage of Willow Avenue , as required by the City Engineer.

73. Prior to occupancy approval, provide certification from Fontana Water Company and Rialto Water Services to demonstrate that all water and/or wastewater service accounts have been documented.

74. Prior to occupancy approval, the applicant shall connect to the City of Rialto sewer system and apply for a sewer connection account with Rialto Water services.

75. Prior to occupancy approval, the applicant is advised that domestic water service is provided by Fontana Water Company , the applicant shall be responsible for coordinating with Fontana Water Company , and complying with all requirements for establishing water service to the property.

76. Prior to occupancy approval, the applicant shall submit a precise/final grade certification to the Engineering Division.

77. Prior to occupancy approval, the applicant shall submit a WQMP Certification that demonstrates that all structural BMPs have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.

78. Prior to occupancy approval, a WQMP Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP.

79. Prior to occupancy approval, all new streetlights shall be installed on an independently metered, City-owned underground electrical system. Using power from an existing LMMD 2 pedestal is encouraged over installing a new pedestal The developer shall provide documentary proof of application with Southern California Edison ("SCE") for all appropriate service points and electrical meters prior to the issuance of a Certificate of Occupancy. New meter pedestals shall be installed, and electrical service paid by the developer, until such time as the underlying property is annexed into LLMD 2. The City shall not pay the charges for electrical service until the landscape and irrigation is accepted after the one-year maintenance period and the underlying property is annexed into LLMD 2.Prior to occupancy approval, construct a new underground electrical system for public street lighting improvements. New marbelite street light poles with LED light fixtures shall be installed as approved by the City Engineer, in accordance with City of Rialto Standard Drawings.

80. Prior to occupancy approval, the original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Engineering Division prior to issuance of a final certificate of occupancy. Any modifications or changes to approved

improvement plans shall be submitted to the City Engineer for approval prior to construction.

81. Prior to occupancy approval, all abandoned utilities shall be completely removed. Utilities may not be abandoned in place.

82. Prior to occupancy approval, the applicant shall construct an ADA-compliant curb ramps at the signalized intersection of Renaissance Parkway and the main driveway entrance, in accordance with City of Rialto Standard Drawings, and as required by the City Engineer. The applicant shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.

83. Prior to occupancy – Alder Avenue is designated a Major Arterial per the Renaissance Specific Plan with a 100-foot street right of way. The developer shall submit street improvement plans that include, but are not limited, to the following:
    a. Existing asphalt pavement within the entire intersection of Alder Avenue and Renaissance Parkway and full street width of Alder Avenue south leg, extending south approximately 150 feet shall be removed in order to construct full-street width of new pavement with a minimum pavement section of 5 inches asphalt concrete (AC) pavement over 6 inches crushed aggregate base (CAB) and a minimum subgrade of 24 inches at 95% relative compaction, or equal, in accordance with City of Rialto Standard Drawings. The pavement section shall be determined using a Traffic Index ("TI") of 10. The pavement section shall be designed by a California registered Geotechnical Engineer using "R" values from pavement core samples and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition, construction activity damage, and geotechnical report, perform a 2" grind and overlay over the full street width using PG 64-10 ARHM CC-G.

84. Prior to occupancy, traffic signals shall be fully operational to the satisfaction of the City Engineer. The new traffic signals or modifications shall include new or upgraded video detection system and new or upgraded battery backup system. The intersections are as follows:
    a. Renaissance Parkway and Alder Avenue – remove temporary video detection equipment and install new video detection equipment. This shall include removing or replacing loop detectors and related equipment as determined by the City Engineer.
    b. Renaissance Parkway and Main Entrance – complete remaining traffic signal construction. This shall include approved traffic signal plans, independent electrical meter immediately adjacent to the traffic signal, SCE approved electrical conduit, and related equipment as determined by the City Engineer.

85. The applicant shall submit full architectural and structural plans with all mechanical, electrical, and plumbing plans, structural calculations, truss calculations and layout, rough grading plans approved by Public Works Engineering, Water Quality Management Plan, Erosion Control Plan, Stormwater Pollution Prevention Plan, and Title 24 Energy Calculations to the Building Division for plan check and review, prior to the issuance of building permits.

86. The applicant shall provide a Scope of Work on the title page of the architectural plan set. The Scope of Work shall call out all work to be permitted (ex. Main structure, perimeter walls, trash enclosure, etc.).

87. The applicant shall design the structures in accordance with the 2025 California Building Code, 2025 California Mechanical Code, 2025 California Plumbing Code, and the 2025 California Electrical Code, 2025 Residential Code and the 2025 California Green Buildings Standards adopted by the State of California.

88. The applicant shall design the structures to withstand ultimate wind speed of 130 miles per hour, exposure C and seismic zone D.

89. The applicant shall obtain an Electrical Permit from the Building Division for any temporary electrical power required during construction. No temporary electrical power will be granted to a project unless one of the following items is in place and approved by the Building Division: (A) Installation of a construction trailer, or, (B) Security fencing around the area where the electrical power will be located.

90. The applicant shall install any required temporary construction trailer on private property. No trailers are allowed to be located within the public right-of-way. The trailer shall be removed prior to the issuance of a Certificate of Occupancy.

91. The applicant shall design and construct accessible paths of travel from the building's accessible entrances to the public right-of-way, accessible parking, and the trash enclosure. Paths of travel shall incorporate (but not limited to) exterior stairs, landings, walks and sidewalks, pedestrian ramps, curb ramps, warning curbs, detectable warning, signage, gates, lifts and walking surface materials, as necessary. The accessible route(s) of travel shall be the most practical direct route between accessible building entrances, site facilities, accessible parking, public sidewalks, and the accessible entrance(s) to the site, California Building Code, (CBC) Chapter 11, Sec, 11A and 11B.

92. Prior to issuance of a Building Permit all of the following must be in place on the Site: a portable toilet with hand wash station, all BMP's, fencing and signage on each adjacent street saying "If there is any dust or debris coming from this site please contact (superintendent number here) or the AQMD if the problem is not being resolved" or something similar to this.

93. The applicant shall provide temporary toilet facilities for the construction workers. The toilet facilities shall always be maintained in a sanitary condition. The construction toilet facilities of the non-sewer type shall conform to ANSI ZA.3.

94. The applicant shall underground all on site utilities to the new proposed structures, prior to the issuance of a Certificate of Occupancy, unless prior approval has been obtained by the utility company or the City.

95. Prior to issuance of Building Permits, site grading final and pad certifications shall be submitted to the Building Division, which include elevation, orientation, and compaction. The certifications are required to be signed by the engineer of record.

96. The applicant shall provide proof of payment to the Colton Joint Unified School District for all required school fees, prior to the issuance of a building permit.

97. Site facilities such as parking open or covered, recreation facilities, and trash dumpster areas, and common use areas shall be accessible per the California Building Code, Chapter 11.

98. The applicant shall place a copy of the Conditions of Approval herein on within the building plan check submittal set and include the PPD number on the right bottom corner cover page in 20 point bold, prior to the issuance of a building permit.

99. The applicant shall ensure that a minimum of 65% of all construction and demo debris shall be recycled using an approved City of Rialto recycling facility during construction. Copies of receipts for recycling shall be provided to the City Inspector and a copy shall be placed in the office of the construction site.

100. Prior to issuance of Building Permits, on site water service shall be installed and approved by the responsible agency. On site fire hydrants shall be approved by the Fire Department. No flammable materials will be allowed on the site until the fire hydrants are established and approved.

101. The applicant shall comply with all applicable requirements of the California Fire Code and Chapter 15.28 (Fire Code) of the Rialto Municipal Code.

102. Dead-end fire apparatus access roads in excess of 150 feet shall be provided with width and turnaround provisions in accordance with CFC Appendix D Table D103.4 or as determined by the fire code official. The required turning radius of fire apparatus access roadways shall be an inside radius of 28 feet and an outside radius of 56 feet.

103. Indicate on the locations of existing and/or proposed fire hydrants within 300 feet of the proposed project on the site plan within the formal building plan check submittal set. Additional fire hydrants may be required.

104. The required fire flow is 1,500 GPM at 20 PSI for two hours. This is the minimum fire flow permitted for commercial and industrial buildings per the California Fire Code Appendix B with a 50% reduction for required automatic fire sprinklers.

105. The project is required to have an automatic fire sprinkler system per the 2022 California Fire Code Local Amendments for all buildings 5,000 square feet or larger.

106. The project shall comply with the requirements for exiting in the 2022 California Building Code Chapter 10, which requires exits and ingress/egress pathways from the side or rear of the building. This may require design concept changes, reduction in building footprint, and concrete pathways.

107. Provide a Building Code Analysis on the site plan within the formal building plan check submittal set and include the following code information for each building proposed area or feature. Provide a description of use(s), occupancy types, occupancy load and occupant load factor, any occupancy separation(s), number of stories, type of construction, egress analysis, number of exits, separation of exits, accessible egress to public way or approved areas. Provide a detailed description of the manufacturing that will be conducted within the building. Special requirements may apply to building construction, building setbacks, exiting, ventilation, etc. once this is determined.

108. The applicant shall obtain all necessary approvals and operating permits from all Federal, State and local agencies prior to the issuance of a Certificate of Occupancy.

109. The privileges granted by the Planning Commission pursuant to approval of this Conditional Development Permit are valid for one (1) year from the effective date of approval. If the applicant fails to commence the project within one year of said effective date, this conditional development permit shall be null and void and any privileges granted hereunder shall terminate automatically. If the applicant or his or her successor in interest commence the project within one year of the effective date of approval, the privileges granted hereunder will continue inured to the property as long as the property is used for the purpose for which the conditional development permit was granted, and such use remains compatible with adjacent property uses.

110. Approval of PPD No. 2025-0003 will not become effective until the applicant has signed a statement acknowledging awareness and acceptance of the required conditions of approval contained herein.

SECTION 6. The Chairman of the Planning Commission shall sign the passage and adoption of this resolution and thereupon the same shall take effect and be in force.

PASSED, APPROVED AND ADOPTED this 1st day of July, 2026.

_____

MICHAEL E. STORY, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, _____, Administrative Assistant of the City of Rialto, do hereby certify that the foregoing Resolution No. ____ was duly passed and adopted at a regular meeting of the Planning Commission of the City of Rialto held on the ___st day of ____, 2026.

Upon motion of Planning Commissioner_____., seconded by Planning Commissioner ____, the foregoing Resolution No. ____was duly passed and adopted.

Vote on the motion:

AYES:

NOES:

ABSENT:

IN WITNESS WHEREOF, I have hereunto set my hand and the Official Seal of the City of Rialto this __st day of ___, 2026.

_____

KIMBERLY DAME, ADMINISTRATIVE ANALYST