City of Rialto

Regular Meeting - Final

Planning Commission

Wednesday, December 8, 2021 **6:00 PM** **City Council Chambers,150 S. Palm Ave., Rialto, CA 92376**

Public Participation Procedure

IN RESPONSE TO THE COVID-19 EMERGENCY, THE CITY COUNCIL CHAMBERS WILL BE OPEN TO THE PUBLIC WITH LIMITED SEATING INSIDE THE COUNCIL CHAMBERS. THE PUBLIC WILL HAVE AN OPPORTUNITY TO SPEAK ON ANY ITEM USING THE PODIUM INSIDE COUNCIL CHAMBERS.

Call To Order

Pledge of Allegiance

Roll Call

Chair Frank Gonzalez, Vice-Chair Jerry Gutierrez, Artist Gilbert, BarBara Chavez, Dale Estvander, John Peukert, one (1) Vacancy

Oral Communications from the Audience on items not on the Agenda

Planning Commission Minutes

PC-21-0930

Minutes from the November 10, 2021 Planning Commission meeting.

Attachments: PC MTG MINS 11-10-2021.docx

Public Hearings

PC-21-0917

Conditional Development Permit No. 2021-0002: A request to allow the operation of drive-thru service in conjunction with a 2,400 square foot fast-food restaurant to be located at the southeast corner of Casmalia Street and Ayala Drive (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan. This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the State CEQA Guidelines (Environmental Assessment Review No. 2021-0057).

Precise Plan of Design No. 2021-0002: A request to develop a 2,400 square foot fast-food restaurant building with drive-thru service and associated paving, landscaping, lighting, fencing, and drainage improvements located on the southeast corner of Casmalia Street and Ayla Drive (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan. This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the State CEQA Guidelines (Environmental Assessment Review No. 2021-0057).

The above entitlements, together, are collectively referred to as “project” or “Project”.

Attachments: Exhibit A - Location Map

Exhibit B - Site Plan

Exhibit C - Floor Plan

Exhibit D - Elevation

Exhibit E - Landscscape

Exhibit F - TIA Scope

Exhibit G - Draft CDP Resolution

Exhibit H - Draft PPD Resolution

PC-21-0931

Precise Plan of Design No. 2021-0043: A request to allow the development of a 204-unit apartment complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a 3,210-square foot leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan. A Mitigated Negative Declaration (**Environmental Assessment Review No. 2021-0045**) has been prepared for consideration in conjunction with the project.

Variance No. 2021-0001: A request to allow a variance from Section 18.58.060B of the Rialto Municipal Code (RMC) to reduce the minimum required parking from 459 parking spaces to 367 parking spaces, as it relates to a proposal to develop a 204-unit apartment complex on 8.02± acres of land (APNs: 0133-174-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) land use district of the Foothill Boulevard Specific Plan. A Mitigated Negative Declaration (**Environmental Assessment Review No. 2021-0045**) has been prepared for consideration in conjunction with the project.

Attachments: Exhibit A - Location Map.pdf

Exhibit B - Site Plan.pdf

Exhibit C - Floor Plan.pdf

Exhibit D - Elevations.pdf

Exhibit E - Conceptual Landscape Plan.pdf

Exhibit F - Traffic Study.pdf

Exhibit G - EAR2021-0045 - Initial Study.pdf

Exhibit H - EAR2021-0045 - MMRPs.docx

Exhibit I - PPD2021-0043 - Draft Resolution.doc

Exhibit J - VAR 2021-0001 - Draft Resolution.doc

Exhibit K - EAR 2021-0045 - Draft Resolution.docx

PC-21-0934 ***Conditional Development Permit No. 2021-0031:*** A request to operate an Outlet Retail Store in an existing 1,530 square foot tenant space located at 678 W. Baseline Road (APN: 0127-281-10) within the Neighborhood Commercial (C-1) Zone ("Project" or "project"). The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 (Existing Facilities) of the State CEQA Guidelines.

Attachments: Exhibit A - Location Map

Exhibit B - Site Plan

Exhibit C - Floor Plan

Exhibit D - CDP No. 2021-0031 - Draft Resolution

PC-21-0937 ***Conditional Development Permit No. 2021-0018*:** A request to establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building on 1.07 gross acres of land (APN: 0258-181-09) located at 2259 S. Vista Avenue within the Heavy Industrial (H-IND) land use district of the Agua Mansa Specific Plan ("Project" or "project"). This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 (Existing Facilities Projects) of the State CEQA Guidelines.

Attachments: Exhibit A - Location Map

Exhibit B - Project Plans

Exhibit C - CDP 2021-0018 - Draft Resolution

Action Items

Director of Community Development Comments

Commissioner Reports

Adjournment

City of Rialto

Legislation Text

File #: PC-21-0930, **Version:** 1, **Agenda #:**

Minutes from the November 10, 2021 Planning Commission meeting.

CITY OF RIALTO

THE REGULAR MEETING MINUTES OF PLANNING COMMISSION

November 10, 2021 - 6:00 p.m.

The Regular meeting of the Planning Commission 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 Wednesday, November 10, 2021.

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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 Frank Gonzalez called the meeting to order at 6:00 p.m.

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PLEDGE OF ALLEGIANCE

Commissioner Al Twine led the pledge of allegiance.

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ROLL CALL

Roll Call was taken by Senior Planner Daniel Casey.

Present:
Chair Frank Gonzalez
Vice-Chair Jerry Gutierrez
Commissioner John Peukert
Commissioner Dale Estvander
Commissioner Al Twine
Commissioner BarBara Chavez
Commissioner Artist Gilbert

Absent:

Staff Present:
Community Development Director, Sean Moore
Senior Planner, Daniel Casey
Senior Planner, Dionne Harris
Associate Planner, Daniel Rosas
Administrative Assistant. Adrianna Martinez

ORAL COMMUNICATION

Chair Frank Gonzalez asked if there were any oral communications from the public not on the agenda. Adrianna Martinez stated there were none.

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PLANNING COMMISSION MEETING MINUTES

Chair Gonzalez announced that the next item on the agenda is Planning Commission Meeting Minutes.

Motion by Commissioner Dale Estvander, second Vice Chair Jerry Gutierrez to move to approve the September 29, 2021, Planning Commission Special Meeting Minutes. All in favor, *motion carried* 7-0-0.

PUBLIC HEARINGS

Chair Gonzalez stated the next item on the agenda is Conditional Development Permit No. 2021-0022 and Precise Plan of Design No. 2021-0020.

Senior Planner Dionne Harris presented a request to construct and operate a 43,000 square foot industrial storage warehouse building on 2.00 acres of land located on the south side of Santa Ana Avenue and Willow Avenue. The project is categorically exempt from the California Environmental Quality Act (CEQA).

A Traffic Impact Analysis was prepared by LSA Associates and determined the development will generate 74 new vehicle trips daily. The project traffic will contribute to existing delays at the intersection of Riverside Avenue and Slover Avenue, and Riverside Avenue and I-10 EB ramps. As a result, the applicant will contribute $40,465 in fair-share fees.

The Commission asked where the nearest residences are in correlation to the project and if any public responses were received. Dionne Harris advised the nearest residences are to the west of the project, but not directly adjacent. She also stated staff did not receive any responses during the public comment period.

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Chair Gonzalez opened the Public Hearing.

Greg Lord, Applicant

The Commission asked Greg Lord if the project will provide sidewalks to which Greg Lord responded that it will.

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Motion by Commissioner Dale Estvander to close the Public Hearing, second by Commissioner Al Twine. All in favor, *motion carried* 7-0-0.

Motion by Vice Chair Jerry Gutierrez, second by Commissioner Artist Gilbert to approve Conditional Development Permit No. 2021-0022 and Precise Plan of Design No. 2021-0020. All in favor, *motion carried* 7-0-0.

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Chair Gonzalez stated the next item on the agenda is Conditional Development Permit No. 2021-0037.

Senior Planner Dionne Harris presented a request to allow an outlet store to operate within an existing 2,146 square foot tenant space located at 523 S. Riverside Avenue. The project is categorically exempt from the California Environmental Quality Act (CEQA).

The applicant proposes to sell furniture, patio furniture, and kitchen appliances. The store will operate seven days a week from 9am to 8pm.

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Chair Gonzalez opened the Public Hearing.

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Motion by Commissioner Dale Estvander to close the Public Hearing, second by Commissioner Al Twine. All in favor, *motion carried* 7-0-0.

Motion by Commissioner Dale Estvander, second by Commissioner Artist Gilbert to approve Conditional Development Permit No. 2021-0037.

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PLANNING DIVISION COMMENTS

Chair Gonzalez stated that the next item on the agenda is Planning Division Comments

Senior Planner Daniel Casey announced the next Planning Commission meeting is scheduled for November 24, 2021.

Daniel Casey also provided an update on the car wash statistics the Commission requested. He reported there are 14 carwashes associated with a gas station, and six existing standalones with two more recently entitled within the City.

The Commission requested staff to provide a recommendation for a carwash separation requirement.

Daniel Casey stated he is still working on the alcohol sales exhibit to provide to the Commission.

The Commission inquired about Casa Grande and Daniel Casey advised he spoke with the City of Fontana and the street will open in January 2022.

Daniel Casey introduced the new Community Development Director, Sean Moore, to the Commission.

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PLANNING COMMISSION COMMENTS

Chair Gonzalez stated that the next item on the agenda is Planning Commission Comments.

Commissioner Al Twine announced he is resigning, and this will be his last Planning Commission meeting.

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Motion by Commissioner Dale Estvander, second by Commissioner Al Twine to adjourn the meeting. All were in favor, *motion carried 7-0-0.*

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ADJOURNMENT

The Regular Planning Commission meeting on Wednesday, November 10, 2021, adjourned at 6:40 p.m.

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Minutes prepared by Adrianna Martinez, Administrative Assistant

_____

Frank Gonzalez, Chair Planning Commission

File #: PC-21-0917, **Version:** 1, **Agenda #:**

For the Planning Commission Meeting of December 8, 2021

TO: Honorable Chairman and Planning Commissioners

APPROVAL: Sean M. Moore, AICP, Director of Community Development

FROM: Daniel Rosas, Associate Planner

Conditional Development Permit No. 2021-0002: A request to allow the operation of drive-thru service in conjunction with a 2,400 square foot fast-food restaurant to be located at the southeast corner of Casmalia Street and Ayala Drive (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan. This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the State CEQA Guidelines (Environmental Assessment Review No. 2021-0057).

Precise Plan of Design No. 2021-0002: A request to develop a 2,400 square foot fast-food restaurant building with drive-thru service and associated paving, landscaping, lighting, fencing, and drainage improvements located on the southeast corner of Casmalia Street and Ayla Drive (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan. This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New Construction or Conversion of Small Structures) of the State CEQA Guidelines (Environmental Assessment Review No. 2021-0057).

The above entitlements, together, are collectively referred to as “project” or “Project”.

APPLICANT:

CDM Inc., 4740 Green River Road, Suite 108, Corona, CA 92880.

LOCATION:

The project site consists of one (1) parcel of land (APN: 1133-591-07) located at the southeast corner of Casmalia Street and Ayala Drive (**Exhibit A**).

BACKGROUND:

Surrounding General Plan Land Use Designations

Location	***General Plan Designation***
Site	Specific Plan w/ Specific Plan Overlay

North	Residential 6
East	Specific Plan w/ Specific Plan Overlay
South	Specific Plan w/ Specific Plan Overlay
West	Specific Plan w/ Specific Plan Overlay

Surrounding Land Use District or Zoning Designations

Location	***Zoning***
Site	Renaissance Specific Plan (Freeway Incubator (F-I))
North	Single Family Residential (R-1B)
East	Renaissance Specific Plan (Freeway Incubator (F-I))
South	Renaissance Specific Plan (Freeway Incubator (F-I))
West	Renaissance Specific Plan (Freeway Incubator (F-I))

Site Characteristics
The project site is a relatively flat and rectangular-shaped piece of land comprised of one (1) parcel 0.64 acres in size with approximate average dimensions of 250 feet (east-west) by 132 feet (north-south). The site is currently developed with an existing single-family residence.

Surrounding Area
The project site is bound by Casmalia Street to the north and Ayala Drive to the west. To the north, across Casmalia Street, is an existing single-family residential tract. To the west, across Ayala Drive, is a gas station. To the east and south is a vacant parcel of land.

ANALYSIS/DISCUSSION:

Project Proposal
CDM Inc., the applicant, proposes to demolish the existing residential dwelling and redevelop the project site with the construction of a 2,400 square foot speculative fast-food restaurant with drive-thru service.

Entitlement Requirements
Per Table 3-2 (General Permitted Uses) of the Renaissance Specific Plan and Chapter 18.66 (Conditional Development Permits) of the Rialto Municipal Code, the operation of a drive-thru requires the approval of a Conditional Development Permit by the Planning Commission. Additionally, per Chapter 18.65 of the Rialto Municipal Code, a Precise Plan of Design approval is required to develop the project. The applicant has complied with these requirements and filed the applications on January 25, 2021.

Site Design
According to the site plan (**Exhibit B**), the applicant will construct a 2,400 square foot fast-food restaurant with drive-thru lane on the west portion of the parcel with the associated paving, lighting, landscaping, and other improvements such as facilities for Americans with Disability Act (ADA) access and trash service on the east portion of the project site.

The project site will be accessed via the one access (1) driveway on Casmalia Street located at the northeast corner of the site. A vehicle circulation drive aisle will loop the east portion of the project site providing access to parking as well as the drive-thru lane entrance. The proposed drive-thru lane circles the restaurant building has queuing for at least ten (10) cars.

The project also includes a pedestrian pathway to and from the public right-of-way, trash enclosure, landscape planters throughout the parking areas as well as the perimeter and site lighting throughout the project will also be required.

Access
The project site will be accessed via the driveway on Casmalia Street near the northeast corner of the project site. The project site has existing street improvements along both frontages that may need to be amended per the Renaissance Specific Plan such as existing curb, gutter, signalized intersection, etc. The Renaissance Specific Plan identifies a raised median for Casmalia Street so the proposed driveway will be restricted to right-in, right-out only access in the future.

Floor Plans
The proposed restaurant is a speculative development with no specified tenant that will occupy building. As such, the floor plan of the restaurant building (**Exhibit C**) shows limited interior improvements consisting of restroom layout, roof access, and electrical room. Although no seating or kitchen layout has been presented, the future tenant is required to submit Tenant Improvement (TI) plans to the Building Division for review and approval for permit. The building will have an articulated footprint due to the incorporation of the electrical room and non-habitable projected masses with varying depths from the main wall plane.

Architectural Design
As shown on the elevations for the drive-thru restaurant building (**Exhibit D**), the structure will have a contemporary architectural design that is consistent with the City's Design Guidelines and the Renaissance Specific Plan in providing enhanced architecture and site design. This includes the incorporation of store front system, stone veneer, metal awnings, and exterior cement plaster in white and grey colors. The exterior height of the structure ranges from approximately nineteen (19) feet up to thirty (30) feet.

Landscaping
The landscape coverage for the project is 12 percent which complies with the requirements of Renaissance Specific Plan. This includes a 10-foot landscape easement and landscape setbacks along both Ayala Drive and Casmalia Street as well as additional landscape planters around the drive-through lane and in the parking area. As shown on the Planting Plan (**Exhibit E**), all of the landscape planters will feature a variety of trees and an abundant amount of shrubs and groundcover.

Parking
The proposed project will have twenty-three (23) auto stalls on-site, including 1 ADA accessible parking spaces. This quantity meets the minimum parking requirement as shown in the parking calculation chart below and as required by Renaissance Specific Plan:

Type of Use	***Floor Area (square feet)***	***Parking Ratio***	***Number of spaces***
Restaurant Non-Res. Incentive Program (Pedestrian Orientation) Total Required/Total Provided	2,400	1/100 -5% (1.2)	24 -1 **23/23**

Operations
Although the operator of the proposed drive-thru restaurant is unknown at this time, conditions of approval have been incorporated into the resolution to ensure that the future operator complies with the City requirements and regulations of the Renaissance Specific Plan. Although a twenty-four operation 24-hour operation is permitted, the property is subject to the city's noise ordinance and conditions of approval have been incorporated to mitigate drive-thru speaker audio, light standard shields to prevent light flooding from the property, continuous hedge planting along the drive-thru lane to screen vehicle headlights from the public right-of-way. Other conditions of approval require the installation of a trash receptacle at exit of the drive-thru lane as well as, upon notification, the immediate remedy of excessive drive-thru queuing that affects the general circulation of traffic on-site.

Traffic
STC Traffic Inc., prepared a Traffic Impact Analysis Scoping Agreement (TIASA) to assess the project's potential impacts to local streets and intersections (**Exhibit F**). The TIASA estimates that the project will generate up to approximately 81 AM peak hours trips and 66 PM peak hour trips. The TIASA concluded that the project will generate an insignificant amount of traffic. However, the project traffic will contribute to an existing delay at the intersection of Ayala Drive and Casmalia Street, and in response the applicant will contribute a "fair-share" payment in the amount of approximately $30,000 towards future improvements at the intersection.

Land Use Compatibility
The project and its design are consistent with the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan and the General Plan. The primary purpose of the Freeway Incubator land use district is to provide services to the motoring public and allows drive-thru restaurant use. The proposed project is required to install enhanced landscaping with berming and hedges to buffer the existing residences to the north. With successful implementation of the included conditions of approval, the project is not anticipated to have any negative impacts. The project will provide a benefit to the community by replacing an under-developed commercial property with new on-site improvements that will aesthetically enhance the site, improve economic activity and provide an alternative dining option in a convenient location.

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 2-16: Improve the architectural and design quality of development 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:

California Environmental Quality Act
This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New construction or conversion of small Structures) (Environmental Assessment Review No. 2021-0057). Class 3 allows for the exemption of a project consisting of the new construction of a restaurant up to 2,500 square foot in floor area. A Notice of Exemption form is attached to this agenda report.

PUBLIC NOTICE:

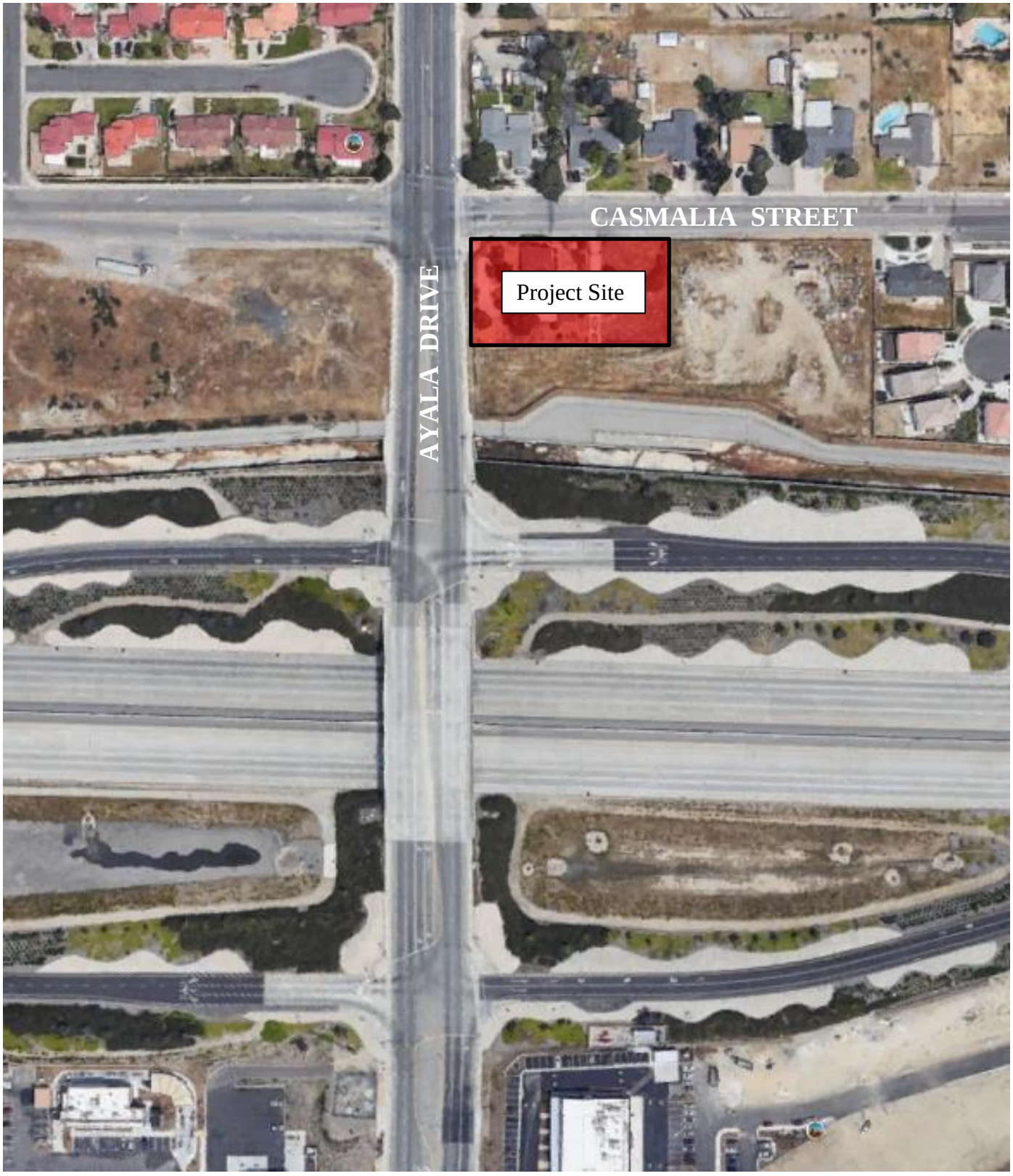
The City mailed a public hearing notice for the proposed project to all property owners within 660 feet of the project site and published the public hearing notice in the *San Bernardino Sun* newspaper as required by State law.

RECOMMENDATION:

The Planning Division recommends that the Planning Commission:

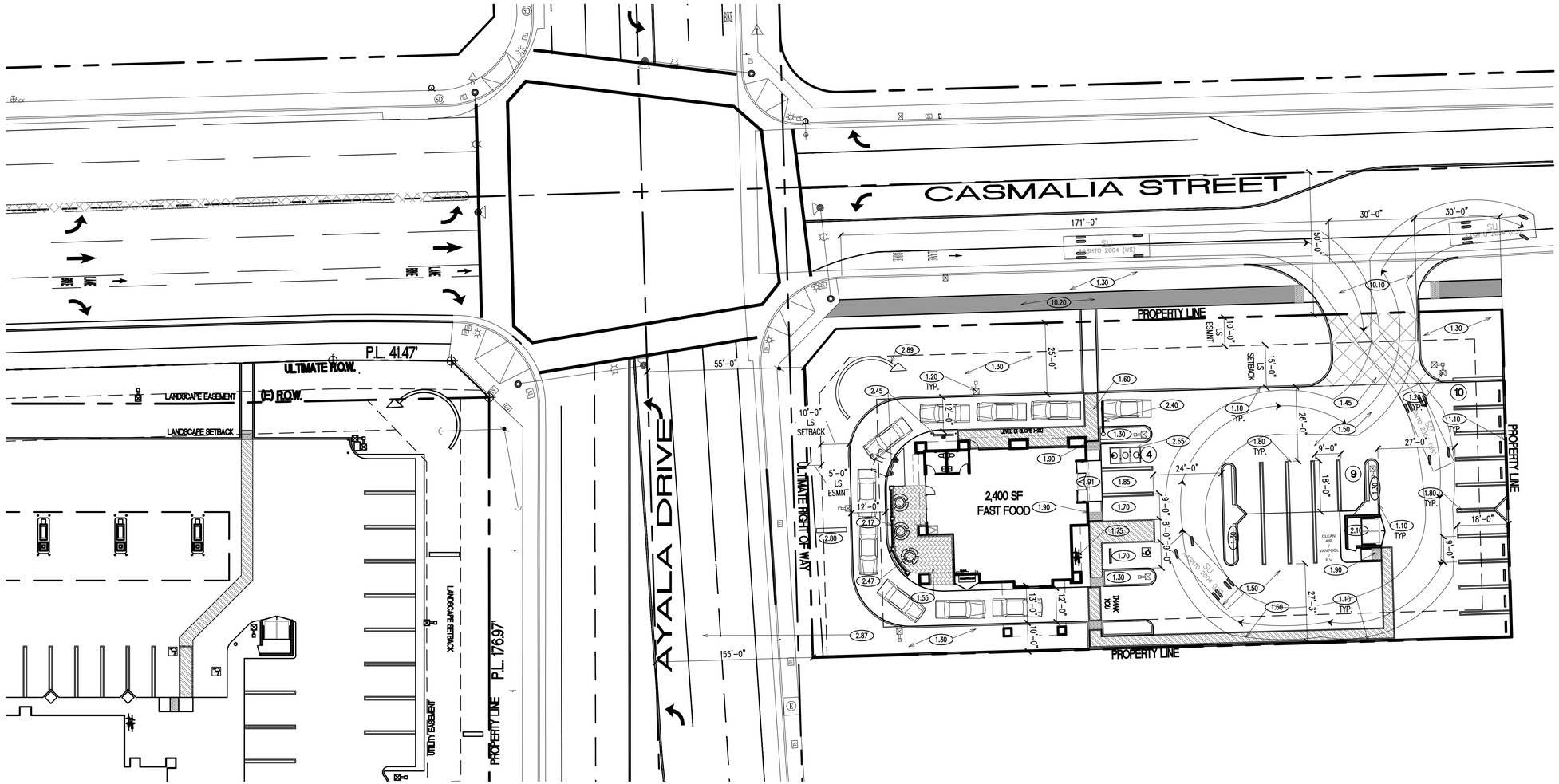
- Adopt the attached Resolution (**Exhibit G**) to approve Conditional Development Permit No. 2021-0002 to allow the operation of drive-thru service in conjunction with a 2,400 square foot fast-food restaurant located at the southeast corner of Ayala Drive and Camalia Street (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan, subject to the findings and conditions therein; and

- Adopt the attached Resolution (**Exhibit H**) to approve Precise Plan of Design No. 2021-0002 to allow the development of a 2,400 square foot fast-food restaurant building with drive-thru service located at the southeast corner of Ayala Drive and Camalia Street (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan, subject to the findings and conditions therein.



Project Location Map

N



N

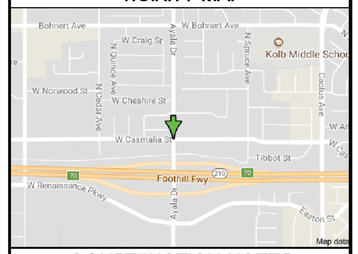
W E

S

20 16 12 8 4 0 20' 40' 60'

GRAPHIC SCALE

VICINITY MAP



CONSTRUCTION NOTES

1.10	6" CONCRETE CURB
1.20	20'H LED AREA LIGHT WITH PHOTO-CELL AND TIME CLOCK SWITCHING PER "CALGREEN" AND TITLE 24 REQUIREMENTS. HOOD AND ARRANGE SO AS NOT TO CAUSE A NUISANCE TO ADJACENT STREET TRAFFIC OR TO LIVING ENVIRONMENT. THE AMOUNT OF LIGHT THAT SHALL BE PROVIDED DSHALL BE PER THE PUBLIC WORKS STANDARDS AND CALGREEN
1.30	LANDSCAPING WITH AUTOMATIC IRRIGATION
1.45	COLORED CONCRETE WITH 8X8 SCORE LINES
1.50	6" OVER 4" A.B. ASPHALT PAVING OR AS SPECIFIED IN SOILS REPORT IF AVAILABLE.
1.55	DECORATIVE PAVERS IN PATIO (OUTSIDE SEATING AREA)
1.60	HANDICAP PATH OF TRAVEL (MIN. 48" WIDE AND SLOPE NOT TO EXCEED 2% EACH WAY)
1.70	HANDICAP PARKING SPACE WITH ALL RELATED SIGNAGE (SLOPE NOT TO EXCEED 2% E.W.)
1.75	BICYCLE PARKING (MIN. 6) PER CAL GREEN CODE
1.80	9'X18' STANDARD PARKING SPACES
1.85	EVCS PARKING SPACE COMPLYING WITH CBC 11B-812
1.90	CONCRETE HANDICAP RAMP (SLOPE 8.33%)
1.91	CONCRETE SIDEWALK (MIN. 48" WIDE WITH 2% CROSS SLOPE WHERE HANDICAP PATH OF TRAVEL OCCURS)
2.10	TRASH ENCLOSURE PUBLIC WORKS STANDARD
2.17	3'H SCREEN WALL w/ 16"X16"X48"H PILASTER @ 10'-8" O.C.
2.40	HEIGHT CLEARANCE BAR
2.45	MENU BOARD
2.47	CIRCULAR SEATING BENCH & TABLE
2.65	750 GALLON GREASE INTERCEPTOR FOR Q.S.R.
2.80	FASTFOOD ID MONUMENT SIGN
2.87	THE SITE SHOULD HAVE ACCESS TO ONE SPACE ON THE FREEWAY SIGN ACROSS THE STREET AT 1103 W. CASMALIA STREET
2.89	CENTER CORNER MONUMENT
2.90	ELECTRICAL PANELS
3.10	ADA PARKING LOT ENTY SIGN PER CHAPTER 11B OF CBC
10.10	CONCRETE DRIVEWAY PER CITY OF RIALTO PUBLIC WORKS STANDARD
10.20	CONCRETE SIDEWALK PER CITY OF RIALTO PUBLIC WORKS STANDARD

SITE DATA INFORMATION

DEVELOPER'S INFORMATION:
COM INC
4740 GREEN RIVER ROAD #108
CORONA, CA. 92880

CONTACT:
AMIR DEHBOZORGI

ACCESSOR'S PARCEL NUMBER
–

ZONING:
COMMERCIAL

	SQ. FT.	ACRE	RATIO
LOT AREA	27,885.0	0.6	–
FAST FOOD └ OCCUPANCY: A-2 └ CONSTRUCTION: V-B	2,400.0	–	8.6%
OUTSIDE PATIO SEATING 450SF			

NOTE:
DEVELOPMENT IMPACT FEES (DIF) WILL BE PAID PRIOR TO OCCUPANCY

SITE PLAN & PARKING SUMMARY

BUILDING NO.	SIZE	USE	PARKING EQUATION	REQ. NO. SPACES	PROVIDED
FASTFOOD BUILDING	2,400.0	FAST FOOD	1/100 – 5% REDUCTION	24-1 = 23	23
TOTAL BUILDING S.F.	2,400.0		PER RSP		

TOTAL PARKING PROVIDED: 23 PARKING SPACES
HANDICAPPED PARKING SPACES REQUIRED: 23 SPACES- 1 REQUIRED PER CODE. PROVIDED 1 SPACE

REVISIONS

NO.:	DATE:	DESCRIPTION:
1	03/19/21	REVISED PER PLANNING
2	07/21/20	REVISED PER PLANNING
3	08/16/21	REMOVED PYLON SIGN

CJC Design, Inc.
Design Planning Permitting
22485 La Palma Avenue, Suite 202, Yorba Linda, CA 92887
Tel: (714) 970-8545
Fax: (714) 970-8543
www.cjccorp.com

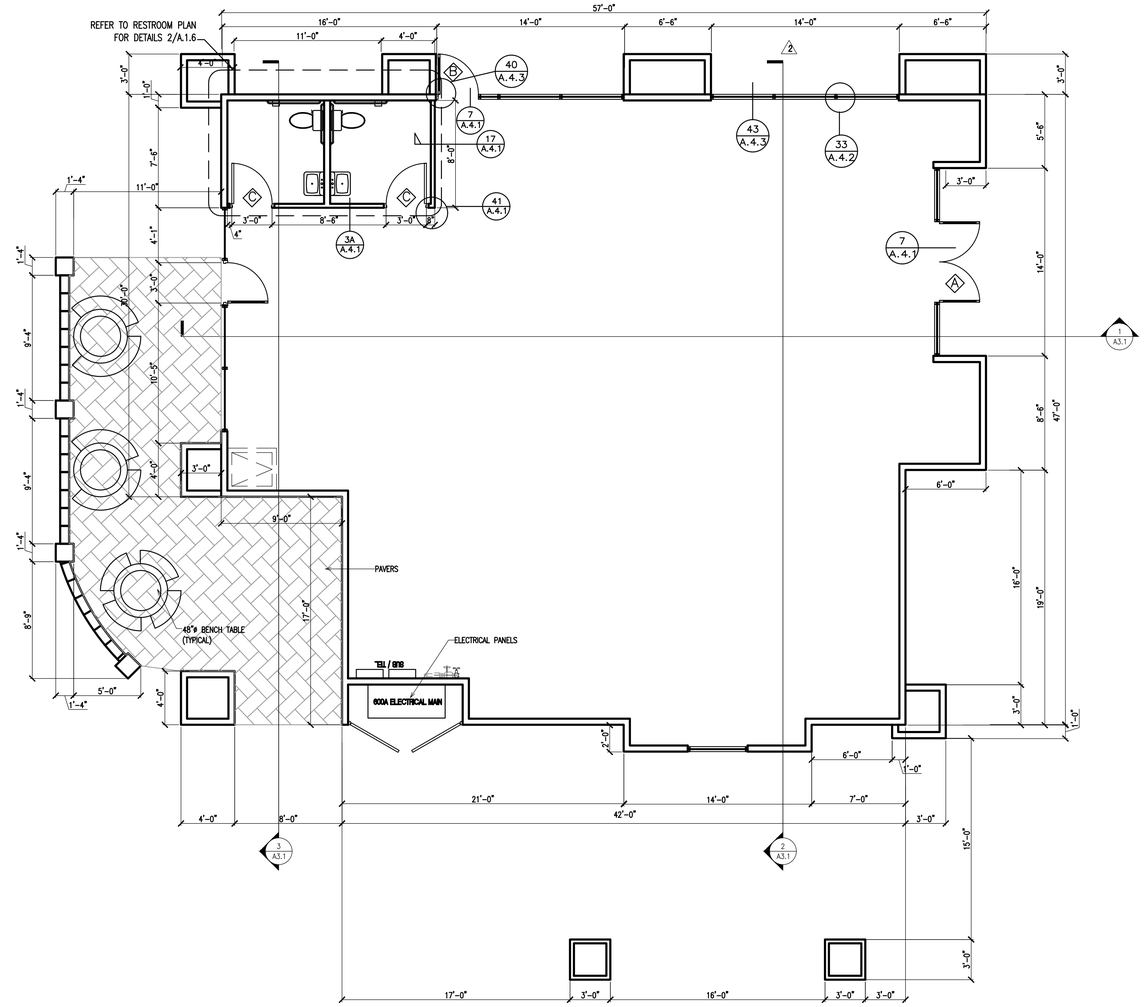
Rialto
Fast Food

PROJECT:
2089 AYALA DRIVE
RIALTO, CA. 92377

PROPOSED SITE PLAN

DATE ISSUED: 12/08/20
SCALE: 1"=20'-0"
DRAWN BY: F. COHEN
CHECKED BY:
PROJECT NUMBER: 20050
STORE NUMBER: RIALTO
SHEET: C.1.1

Knox boxes. The main entry doors to the building and at least one rear door, shall have, immediately adjacent to them, a Knox box to facilitate the entry of safety personnel. Knox boxes shall be installed in such a manner as to resist vandalism, removal, or destruction by hand, and be recessed into the building.



⚠DOOR SCHEDULE

	DESCRIPTION	: 1 PR. 3'X 7' ALUMINUM DOOR W/ WEATHER-STRIPPING & 10" KICK PLATE
	HANGING DEVICES	: (6) McKINNEY TH2314/MPB91
	SECURING DEVICES	: (1) ADAMS RITE MS1850S DEADBOLT (INACTIVE LEAF) (1) ADAMS RITE MS1880 TWO-POINT FLUSHBOLT (2) FALCON LOCK C607 7-PIN CORE COMBINATED "A" KEY (1) FALCON LOCK KB609-2 CUT CONTROL KEY "A" KEYWAY (9) FALCON LOCK KB632-2 CUT USER KEY "A" KEYWAY (2) FALCON LOCK C987 7-PIN MORTISE CYLINDER HOUSING w/AR CAM (2) FALCON LOCK A08794-003 ADJUSTABLE RING, MORTISE CYLINDER 5/16 3/32
A	OPERATING TRIM	: (2) ROCKWOOD 108 DOOR PULL HANDLE
	OPERATING TRIM	: (2) ROCKWOOD 48 PUSH BAR X 31
	CLOSING DEVICES	: (1) DORMA 8916 DOOR CLOSER 8916 AF89P
	PROTECTIVE TRIM	: (1) ROCKWOOD K1050 B4E KICK PLATE 10"X34"
	STOPS & HOLDERS	: (1) ROCKWOOD 473 DOOR STOP WITH HOOK
	ACCESSORIES	: (1) NATIONAL GUARD C607A DOOR SWEEP 36"
	THRESHOLD	: (1) 325 HALF SADDLE THRESHOLD
	DESCRIPTION	: (1) 3'X 7' ALUMINUM DOOR W/ WEATHER-STRIPPING & 10" KICK PLATE
	HANGING DEVICES	: (3) McKINNEY TH2314/MPB91
	SECURING DEVICES	: (1) FALCON LOCK C607 7-PIN CORE COMBINATED "A" KEYWAY (1) SUR-LOCK I/O 2000L-031C AUTO LOCKING DOOR ALARM IC: NO CTR INCLUDES MORTISE CYLINDER
B	CLOSING DEVICES	: (1) DORMA 8916 DOOR CLOSER 8916 AF89P
	PROTECTIVE TRIM	: (1) ROCKWOOD K1050 B4E KICK PLATE 10"X34"
	ACCESSORIES	: (1) NATIONAL GUARD 137NA WEATHER STRIP 17"X36"X84"
	ACCESSORIES	: (1) NATIONAL GUARD C607A DOOR SWEEP 36"
	MISCELLANEOUS	: (1) SECURITY PRODUCTS DS-6 DOOR SPY
	STOPS & HOLDERS	: (1) ROCKWOOD 473 DOOR STOP WITH HOOK
	THRESHOLD	: (1) 325 HALF SADDLE THRESHOLD
	DESCRIPTION	: 3'X 7' WOOD TIMING DOOR
	HINGES	: 1 1/2 PR. 4 1/2 x 4 1/2 BUTT HINGES
C	HARDWARE	: SCHLAGE OLYMPIAD D50 PD-26D (LEVEL HANDLES)
	DOOR CLOSER	: INTERNATIONAL 454 ALUMINUM

DOOR SCHEDULE NOTES

1. Door handles, pulls, latches, locks and other operating devices shall be installed between 34 inches and 44 inches above finish floor and shall not require tight grasping, tight pinching or twisting of the wrist to operate. 2016 CFC, Sections 1010.1.9.1, 1010.1.9.2

2. The unlatching of any door or leaf shall not require more than one operation. 2016 CFC, Section 1010.1.9.5

STOREFRONT NOTES

1. STOREFRONT: AL. FRAME AS MANUFACTURED BY VISTAWALL OR EQ., SERIES PER GLAZING REQMTS., 2" X 4 1/2" FRONT LOADED GLAZING, w/ CLEAR ANODIZED ALUMINUM FINISH, ALTERNATE AND EQUIVALENT STOREFRONT FRAME AS MANUFACTURED BY U.S. ALUMINUM OR OTHER AS APPROVED BY CHEVRON REPRESENTATIVE.
2. STANDARD STOREFRONT GLAZING SHALL BE 1/4" CLEAR TEMPERED GLASS. (TYP.)
3. VERIFY ALL WINDOW SIZES IN FIELD PRIOR TO FABRICATION.
4. GLAZING AND STOREFRONTS SHALL CONFORM TO LOCAL WIND LOAD REQUIREMENTS. GLAZING MATERIAL THICKNESS, AND LAMINATION AND/OR MULLION DESIGN IS SUBJECT TO CHANGE.

FLOOR PLAN NOTES

1. WALL DIMENSIONS ARE TO FACE OF STUD, OR CMU. FLOOR SINK DIMENSIONS ARE FROM FACE OF SLAB U.N.O.
2. ACCESSIBILITY DESIGN STANDARD: 11B CBC 2016
3. ALL SEALANT TO BE PAINTABLE.
4. ALIGN EXTERIOR FACE OF PLYWOOD AND FOUNDATION FACE OF CONCRETE (TYP.).
5. ALIGN DOWEL JOINTS W/ TILE LAYOUT. FOR TILE LAYOUT AND SPECIFICATIONS, SEE SHEET A07.
6. ALL WOOD FRAMING MEMBERS IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED DOUGLAS FIR U.O.N. TYP.

ROOM FINISH SCHEDULE

INTERIOR FINISHES	SHELL BUILDING INTERIOR
FLOOR	CONCRETE W/CLEAR SEALER
BASE	NONE
WALLS	SMOOTH FINISH 5/8" GYP BOARD
CEILING	OPEN CEILING TO DECK ABOVE RESTROOMS: SMOOTH FINISH 5/8" GYP BOARD
CEILING HEIGHT	OPEN TO DECK ABOVE

NOTES:

1. 3-PART EPOXY BY PPG. PRIMER: APPLY PPG 97-685/686 AQUAPON TWO COMPONENT POLYAMIDE EPOXY BLOCK FILLER AT THE RECOMMENDED WET FILM THICKNESS OF 20-40 MILS (MAXIMUM 24 MILS DFT) PER COAT, UNREDUCED.; INTERMEDIATE FINISH: APPLY PPG 97-130/139 AQUAPON HI-BUILD POLYAMIDE EPOXY AT THE RECOMMENDED WET FILM THICKNESS OF 7-10 MILS (4-6 MILS DFT) PER COAT, UNREDUCED.; FINISH: APPLY PPG PITTHANE 97-850 LOW VOC TWO COMPONENT ALIPHATIC ACRYLIC URETHANE AT THE RECOMMENDED WET FILM THICKNESS OF 4-5 MILS (2 MILS DFT) PER COAT, UNREDUCED.
2. NEW CONCRETE/ MASONRY SUBSTRATES TO RECEIVE 3-PART EPOXY, MUST BE EVALUATED PRIOR TO COATING TO INSURE THE PH AND MOISTURE CONTENT IS WITHIN ACCEPTABLE PARAMETERS (PH BELOW 9.0 AND MOISTURE BELOW 12%).
3. ALTERNATE MATERIAL FOR CARWASH, UPON APPROVAL OF THE CHEVRON REPRESENTATIVE: SPECTRA-GLAZE II 8x8x16 GLAZED CMU BLOCK.

WALL LEGEND

- 2X6 SOUNDWALL W/ STAGGERED 2X4 STUDS @ 16" O.C. W/ 3-1/2" ACOUSTIC BATT INSULATION AND 5/8" GYP. BD. ON EACH FACE.
- 2X4 WALLS W/ 5/8" GYP. BD. ON EACH FACE U.O.N.

REVISIONS

NO.:	DATE:	DESCRIPTION:
1	03/19/21	REVISED PER PLANNING
2	07/21/21	REVISED PER PLANNING

CJC Design, Inc.
Design Planning Permitting
22465 La Palma Avenue, Suite 202, Yorba Linda, CA 92887
Tel: (714) 970-8643
Fax: (714) 970-8645
www.cjccorp.com

Rialto
Fast Food

PROJECT:
2089 AYALA DRIVE
RIALTO, CA. 92377

FLOOR PLAN

DATE ISSUED: 12/08/20
SCALE: 3/16"=1'-0"
DRAWN BY: F. COHEN
CHECKED BY:
PROJECT NUMBER: 20050
STORE NUMBER: RIALTO
SHEET: A.1.1



NORTH ELEVATION

SCALE: 3/16"=1'-0"



EAST ELEVATION

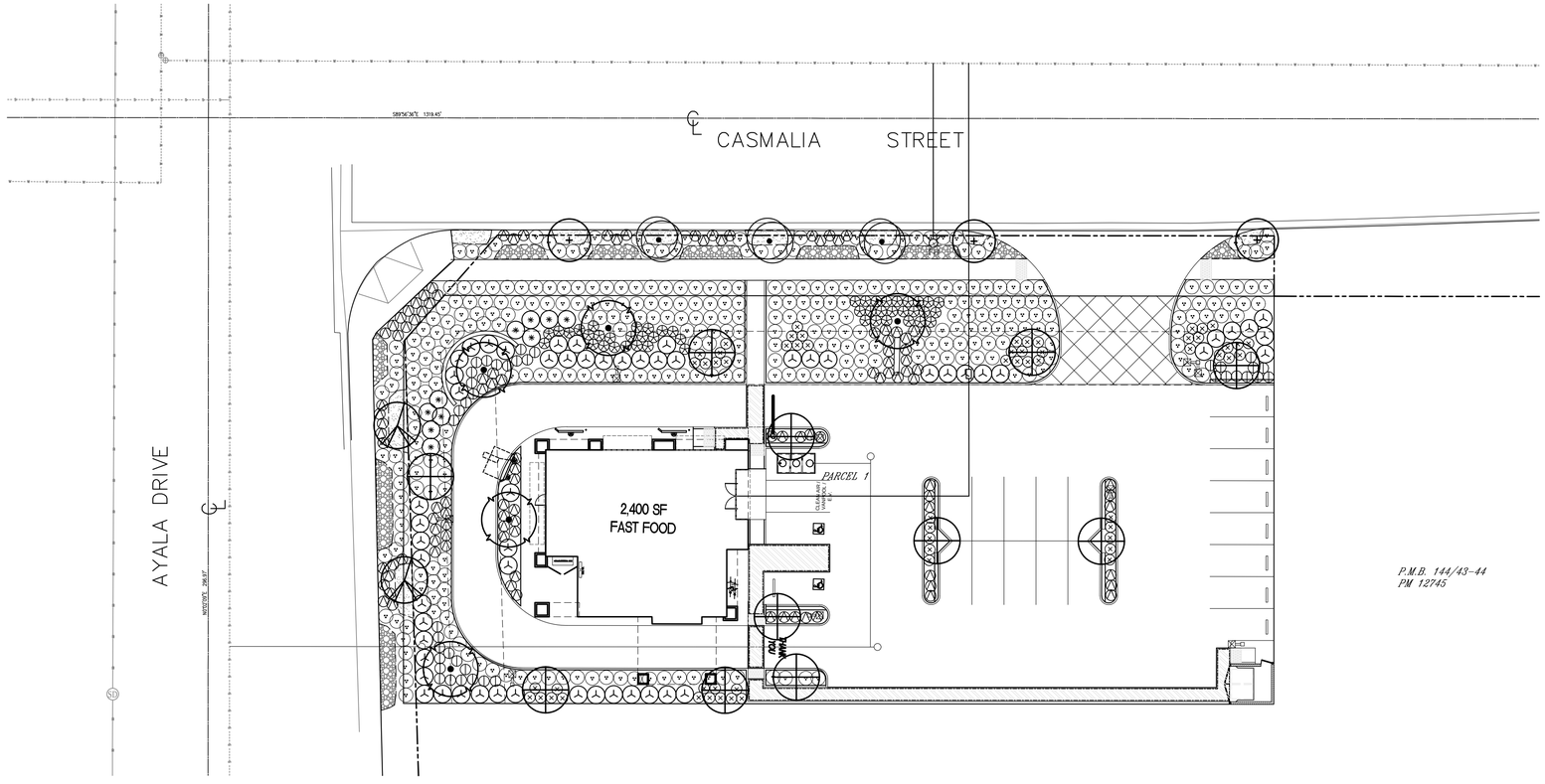
SCALE: 3/16"=1'-0"



SOUTH ELEVATION



WEST ELEVATION



ONSITE PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	NUMBER	REMARKS	WUCOLS IV
	TREES:					
	GLEDITSIA TRIACANTHOS 'SUNBURST'	SUNBURST HONEY LOCUST	24" BOX	5	DOUBLE STAKE /HEIGHT 8–10' , SPREAD 3'–4' MIN.	L
	OLEA EUROPEA 'WILSONI'	FRUITLESS OLIVE	24" BOX	11	DOUBLE STAKE /HEIGHT 8–10' , SPREAD 3'–4' MIN.	L
	SHRUBS:					
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	DWARF BOTTLE BRUSH	5 GAL	59	FULL & BUSHY @ 3' O.C.	L
	BOUGAINVILLEA 'SAN DIEGO RED'	RED BOUGANVILLEA	5 GAL	10	FULL & BUSHY @ 5' O.C.	L
	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	39	FULL & BUSHY @ 3' O.C.	L
	LEUCOPHYLLUM FRUTICOSUM 'GR. CLOUD'	GREEN TEXAS RANGER	5 GAL	57	FULL & BUSHY @ 5' O.C.	L
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	PROSTRATE ROSEMARY	1 GAL	69	FULL & BUSHY @ 3' O.C.	L
	SALVIA GREGGI 'FURMAN'S RED'	FURMAN'S RED SAGE	5 GAL	47	FULL & BUSHY @ 3' O.C.	L
	WESTRINGIA FRUTICOSA 'MUNDI'	MUNDI WESTRINGIA	1 GAL	230	FULL & BUSHY @ 4' O.C.	L
NOT SHOWN	FOREST BLEND WOOD MULCH	MEDIUM GRIND WOOD MULCH	3" MAX.	AS REQ'D.	3" DEEP – INSTALLED IN ALL SHRUB PLANTING AREAS UNLESS NOTED TYP.	

OFFSITE PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	NUMBER	REMARKS	WUCOLS IV	DETAIL/SHEET
	TREES:						
	PISTACIA CHINENSIS	CHINESE PISTACHE	24" BOX	3	DOUBLE STAKE /HEIGHT 8–10' , SPREAD 3'–4' MIN.	L	650,651,660/L–4
	QUERCUS SUBER	CORK OAK	24" BOX	4	DOUBLE STAKE /HEIGHT 8–10' , SPREAD 3'–4' MIN.	L	650,651,660/L–4
	ULMUS PARVIFOLIA 'TRUE GREEN'	EVERGREEN ELM	24" BOX	3	DOUBLE STAKE /HEIGHT 8–10' , SPREAD 3'–4' MIN.	L	650,651,660/L–4
	SHRUBS:						
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	PROSTRATE ROSEMARY	5 GAL	42	FULL & BUSHY @ 3' O.C.	L	655/L–4
	WESTRINGIA FRUTICOSA 'MUNDI'	MUNDI WESTRINGIA	5 GAL	107	FULL & SPREADING @ 4' O.C.	L	655/L–4
	COBBLE	SMOOTH GREY COBBLE	3" MAX.	AS REQ'D.	INSTALL PER DETAIL AND SPECIFICATIONS		663/L–4
	TAN DECOMPOSED GRANITE	TAN D.G.	3" MAX.	AS REQ'D.	3" DEEP – INSTALL WHERE SHOWN ON PLANS PER CITY REQUIREMENTS		666/L–5
NOT SHOWN	FOREST BLEND WOOD MULCH	MEDIUM GRIND WOOD MULCH	3" MAX.	AS REQ'D.	3" DEEP – INSTALLED IN ALL SHRUB PLANTING AREAS TYP.		

SITE CALCULATIONS

SITE AREA	31,739 SQ. FT.	0.64 NET ACRES
TOTAL LANDSCAPE AREA	3,713 SQ. FT.	12% OF TOTAL SITE
LANDSCAPE AREA IN R.O.W.	3,300 SQ. FT.	

NOTES:

1. *ALL PLANTING AND IRRIGATION SHALL CONFORM TO THE CITY OF RIALTO WATER EFFICIENCY ORDINANCE 17.32.*
2. *A DRIP IRRIGATION SYSTEM SHALL BE UTILIZED FOR THIS PROJECT PER THE CITY OF RIALTO'S WATER CONSERVATION ORDINANCE. NO SPRAY IRRIGATION SHALL BE USED.*
3. *ALL MATURE PLANTING SHALL NOT INTERFERE WITH UTILITY LINES OR TRAFFIC SITE LINES.*
4. *ALL UTILITIES SHALL BE SCREENED W/ PLANTING TYP.*
5. *CITY OF RIALTO PLANNING DEPT. SHALL BE CALLED PRIOR TO ANY INSTALLATION IN ORDER TO SCHEDULE REQUIRED LANDSCAPE INSPECTIONS.*
6. *TREES & SHRUBS SHALL BE PLACED A MINIMUM OF 5' AWAY FROM WATER METER, GAS METER, OR SEWER LATERALS; A MINIMUM OF 10' AWAY FROM UTILITY POLES; & A MINIMUM OF 8' AWAY FROM FIRE HYDRANTS & FIRE DEPARTMENT SPRINKLER & STANDPIPE CONNECTIONS.*
7. *THE OFFSITE LANDSCAPE CONSTRUCTION PLANS SHALL BE A SEPARATE SUBMITTAL AND CONFORM TO THE CITY STANDARDS & SPECIFICATIONS.*

GRAPHIC SCALE

20 0 20 40 80

1 INCH = 20 FT.

PRELIMINARY PLANTING PLAN

REVISED

ALHAMBRA GROUP
LANDSCAPE ARCHITECTURE
California license #2017
RECREATION FACILITIES PLANNING
41635 Enterprise Circle North, Suite C
Temecula, CA 92590 (951) 296-6802 FAX 296-6803

LANDSCAPE ARCHITECT
ID DONATO – 2017
CERTIFICATE NO.
4-12-21
6-30-21
STATE OF CALIFORNIA

PROJECT: RIALTO CENTER 2
OWNER: CDM, INC.
4740 GREEN RIVER ROAD
CORONA, CA 92880 TEL: (909) 938-0979 CONTACT: AMIR DEHBOZORGI

drawn: V.D.
checked: V.D.
date: 01–13–21
SHEET L-1
of 1 sheets
JOB NO. 20–129

ALL IDEAS, DESIGNS, & ARRANGEMENTS REPRESENTED HEREON ARE THE PROPERTY OF ALHAMBRA GROUP LANDSCAPE ARCHITECTS & SHALL BE USED FOR THIS PROJECT ONLY EXCEPT WITH THE WRITTEN PERMISSION OF SAID ARCHITECTS. ANY CHANGE MADE BY PARTIES OTHER THAN SAID ARCHITECTS SHALL RELIEVE ARCHITECTS OF RESPONSIBILITY FOR THE FACILITY OR AFFECTED PORTION THEREOF. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START OF ANY WORK & SHALL REPORT ANY DISCREPANCY TO THE ARCHITECT.

Date: 13 Apr 21 – 9:19 am

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

The following form shall be used to acknowledge preliminary approval of the scope for the traffic impact analysis (TIA) of the following project. The TIA must follow the City of Rialto Traffic Impact Analysis – Report Guidelines and Requirements, adopted by the City Council on _____.

City of Rialto

Traffic Impact Analysis

Scoping Agreement

Case No. Master Case No. 2019-0049

Related Cases –

SP No. 2019-0019, 2019-0040

EIR No. 2019-0051

GPA No. _____

ZC No. _____

Project Name: City Industry Pallets

Project Address: 11258 South Riverside Avenue, Rialto, CA (a.k.a. 2880 South Riverside Avenue)

Project Description: 3.58-acre pallet repair and storage yard with office

Business Hours: 7:00 AM – 5:00 PM, Monday to Friday

Number of Employees: 4 full-time

Equipment: 3 bobtail trucks (28' length), 2 trips per day, total 6 trips per day

Refurbishment: ~10,000 pallets per month

Recycled Materials: 1 roll-off bin disposed of per month

	Consultant	**Developer**
Name:	GANDDINI GROUP, INC.	LANDARQ, INC.
Address:	555 Park Center Drive, Ste. 225	865 South Milliken Avenue, Suite E
	Santa Ana, CA 92705	Ontario, CA 91761
Telephone:	(714) 795-3100	(909) 259-9428
Fax:	(714) 242-2111	

1. **Trip Generation Source:** ITE *Trip Generation Manual* (10th Edition, 2017) for base rates, ITE *Trip Generation Manual Supplement* (10th Edition, 2020) for total truck rates, City of Rialto *Traffic Impact Analysis Guidelines* (December 2013) for truck mix by axle breakdown

Existing GP Land Use Light Industrial Proposed Land Use: Pallet Repair & Recycle

Current Zoning: M-1 Proposed Zoning: M-1

In Passenger Car Equivalents:

Total Daily Project Trips: 148

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	0	0	0	17	2	19
PM Trips	0	0	0	7	9	16
Internal Trip Allowance		Yes	[No]	(_____% Trip Discount)		
Pass-By Trip Allowance		Yes	[No]	(_____% Trip Discount)		

For appropriate Land uses, a pass-by trip discount may be allowed not to exceed 25%. Discount trips shall be indicated on a report figure for intersections and access locations.

2. **Trip Geographic Distribution:**

(Detailed exhibits of trip distribution must be attached with Trucks as a separate exhibit)

See Figures 2 and 3.

3. **Background Growth Traffic**

Project Completion Year: 2022 Annual Background Growth Rate: n/a

Other Phase Years _____

Other area projects to be considered: _____

(Contact Planning for Lists. Correlate projects to exhibit map and also indicated which projects have been included in study area forecasts for existing + background growth + project + cumulative)

Model/Forecast methodology n/a

4. **Study Intersections:**

(NOTE: Subject to revisions after other projects, trip generation and distribution are determined, or comments from other agencies received.)

1. n/a - Project is forecast to generate fewer than 50 peak hour trips; no off-site analysis per exemptions outlined in City Guidelines Exhibit A.
2. _____

5. **Study Roadway Segments:**
(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies received.)

1._____

2._____

6. **Other Jurisdictional Impacts**

Is this project within any other Agency's Sphere of Influence or within one-mile of another jurisdiction boundary?

[YES] NO

If so, name of Jurisdiction: Unincorporated San Bernardino County

7. **Site Plan** (please attach 11"x17" legible copy) – see Attachment A.

8. **Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline)** (to be filled out by the City of Rialto Public Works Department) (NOTE: If the traffic study states that a "traffic signal is warranted" (or "a traffic signal appeared to be warranted," or similar statement) at an existing un-signalized intersection under existing conditions, 8-hour approached traffic volumes information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

Truck turning templates shown on site plan.

_____

9. **Existing Conditions**

Traffic count data must be new or within one year. Provide traffic count dates if using other new counts.

Date of counts:_____

NOTE: Fees are due and must be submitted with, or prior to submittal of this form. The City will not process the Scoping Agreement prior to the receipt of the processing free.

Fees Paid: _____ Date: _____

Recommended:

Scoping Agreement Submittal date 6/14/2021

Scoping Agreement Resubmittal date 8/11/2021

Giancarlo Ganddini — 8/11/21

Applicant/Engineer — Date

Land Use Concurrence:

8-16-2021

Community Development Department — Date

Approved by:

Public Works Department — Date

NOTE:

The Applicant/Engineer acknowledges that the Scoping Agreement is intended to assist in the preparation of any required TIA. It is preliminary in nature and the City does not have sufficient data to determine the ultimate conditions that may be imposed for the project. It does not provide nor limit the requirements imposed on the Project but is intended only to provide initial input into the parameters for review of the traffic generated by the Project and the initial areas to be considered and studied. Subsequent changes to scope of required analysis to be included in the TIA may be required by the Transportation Commission, Planning Commission, and/or the City Council upon Public Works Director/City Engineer review and approval.

Exempt from TIA
Per City Manager
8-16-2021

Table 1
Project Trip Generation

Land Use: Manufacturing
Size: 3.580 AC

TRIP GENERATION RATES PER AC[1]								
		AM Peak Hour			PM Peak Hour			Daily
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Rate
All Vehicles	ITE 140	90%	10%	4.620	43%	57%	4.540	35.020
Passenger Cars (92.0% AM, 93.0% PM, 90.0% Daily)	TGMS 140	3.825	0.425	4.250	1.816	2.407	4.223	31.518
Trucks (8.0% AM, 7.0% PM, 10.0% Daily)	TGMS 140	0.333	0.037	0.370	0.137	0.181	0.318	3.502
Truck Mix:	Rialto							
2-Axle Trucks (2.0%)		0.007	0.001	0.008	0.003	0.004	0.007	0.070
3-Axle Trucks (28.0%)		0.093	0.010	0.103	0.038	0.051	0.089	0.981
4+ Axle Trucks (70.0%)		0.233	0.026	0.259	0.096	0.127	0.223	2.451

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Cars	14	2	16	7	9	16	113
Trucks							
2-Axle Trucks	0	0	0	0	0	0	0
3-Axle Trucks	0	0	0	0	0	0	4
4+ Axle Trucks	1	0	1	0	0	0	9
Subtotal	1	0	1	0	0	0	13
Total Vehicle Trips Generated	**15**	**2**	**17**	**7**	**9**	**16**	**126**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Cars	1.0	14	2	16	7	9	16	113
Trucks								
2-Axle Trucks	1.5	0	0	0	0	0	0	0
3-Axle Trucks	2.0	0	0	0	0	0	0	8
4+ Axle Trucks	3.0	3	0	3	0	0	0	27
Subtotal		3	0	3	0	0	0	35
Total PCE Trips Generated		**17**	**2**	**19**	**7**	**9**	**16**	**148**

Notes:
(1) AC = Acre

(2) ITE = Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition, 2017); ### = ITE Land Use Code.
TGMS = ITE Trip Generation Manual Supplement (10th Edition, 2020); ### = ITE Land Use Code.
Rialto = City of Rialto *Traffic Impact Analysis Guidelines* (December 2013); recommended truck mix for warehousing uses.

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

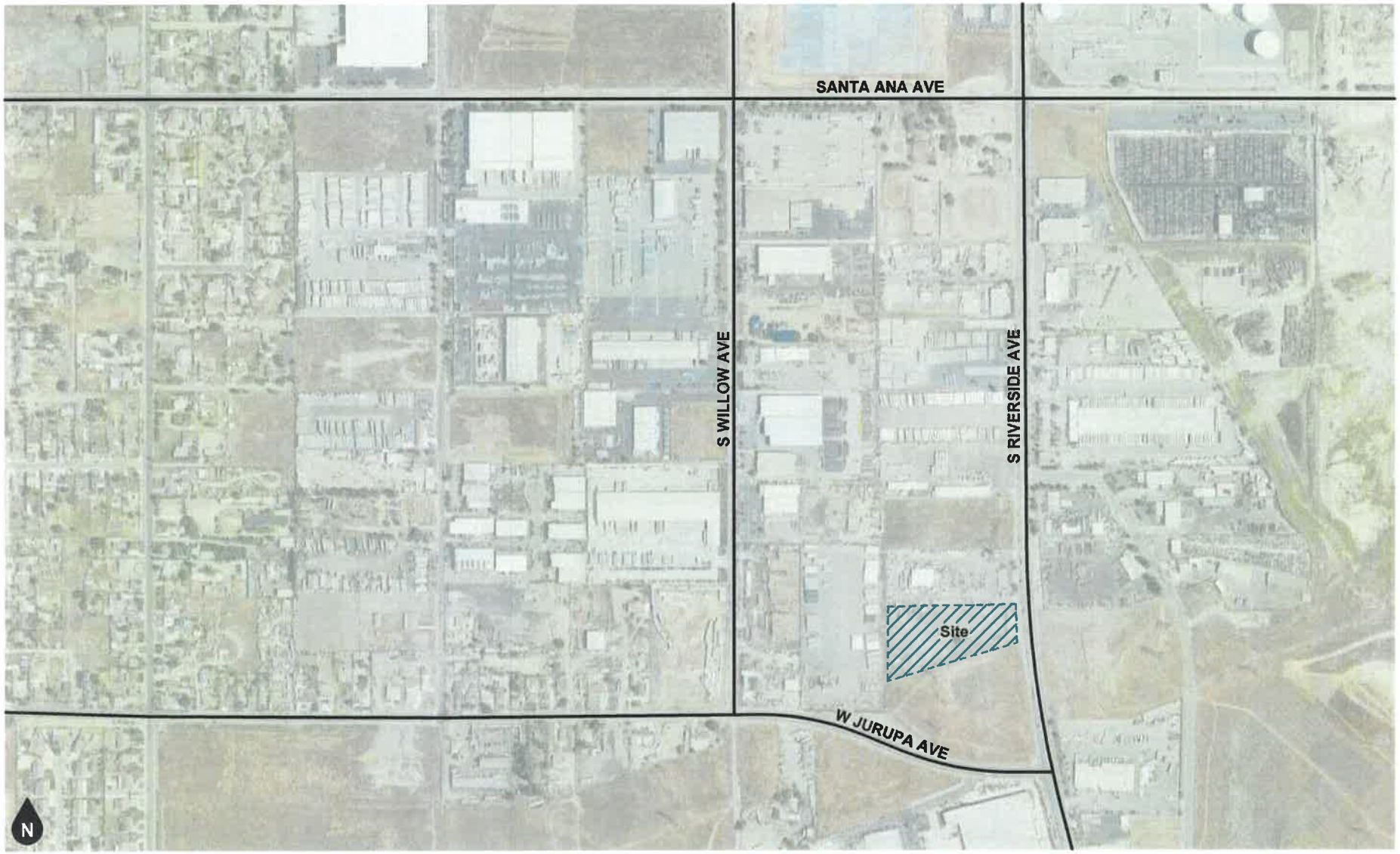
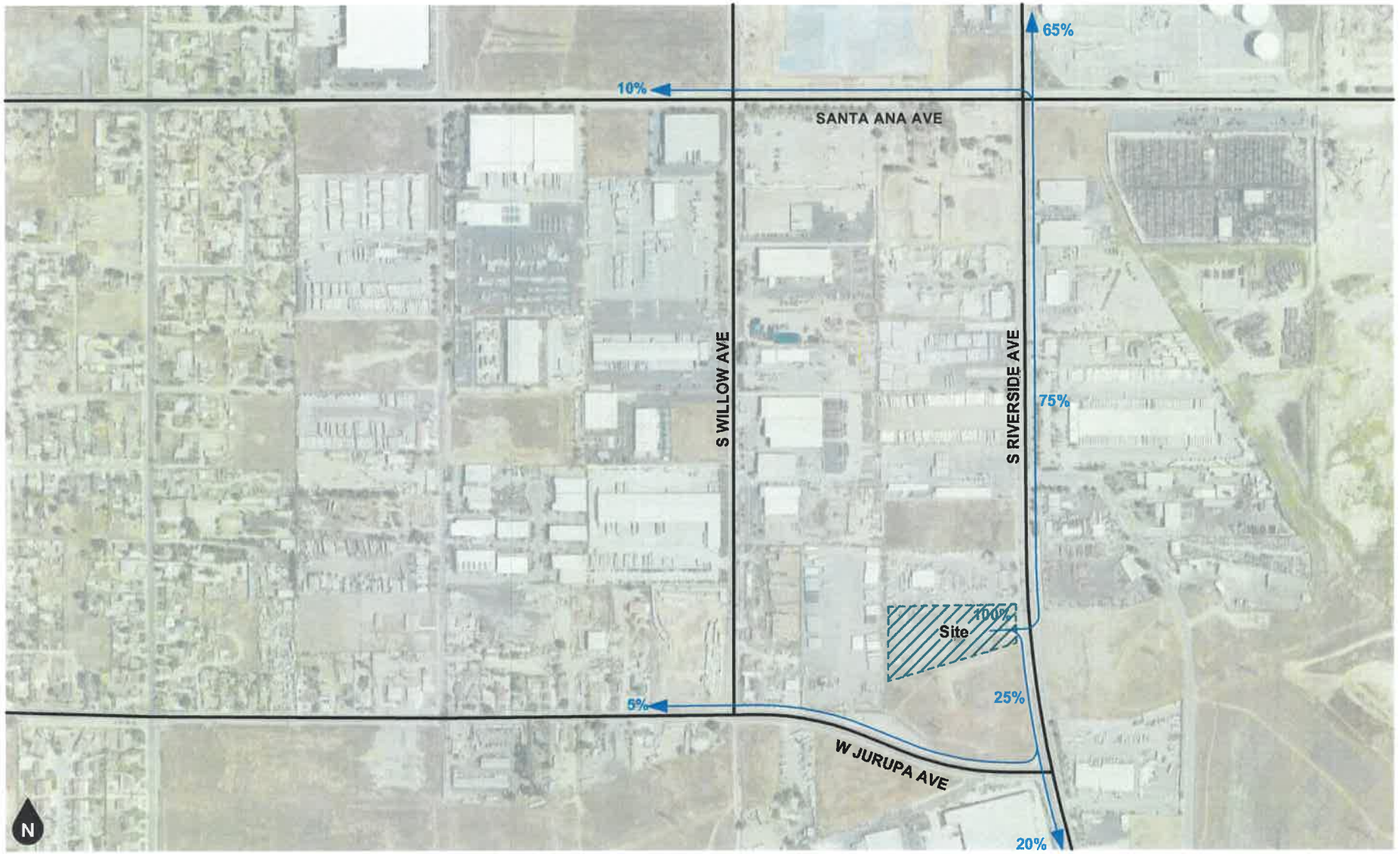


Figure 1
Project Location Map



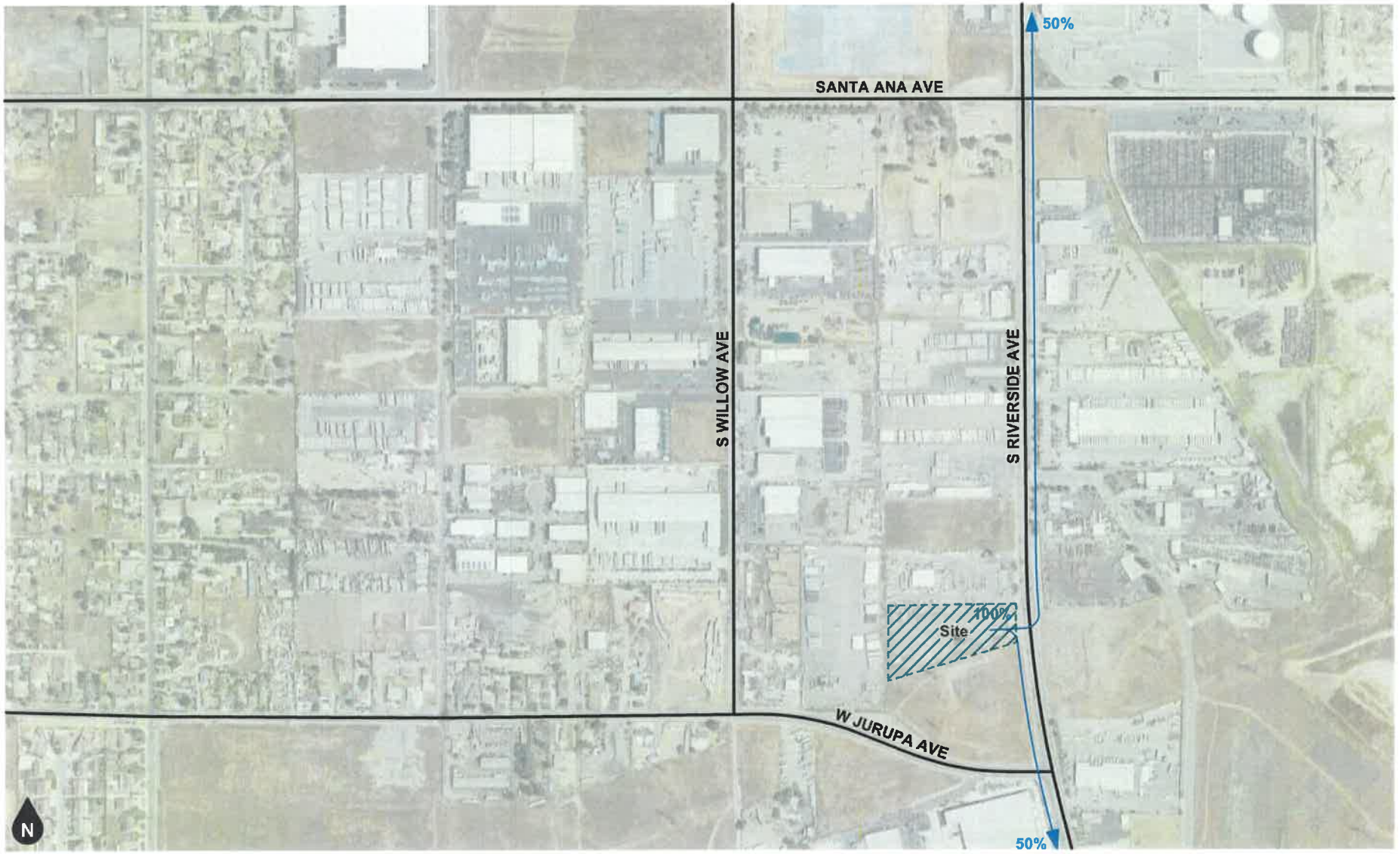
Legend

10% Percent From/To Project

Figure 2
Project Trip Distribution - Cars

gandini

Industry Pallets
Scoping Agreement
19277



Legend

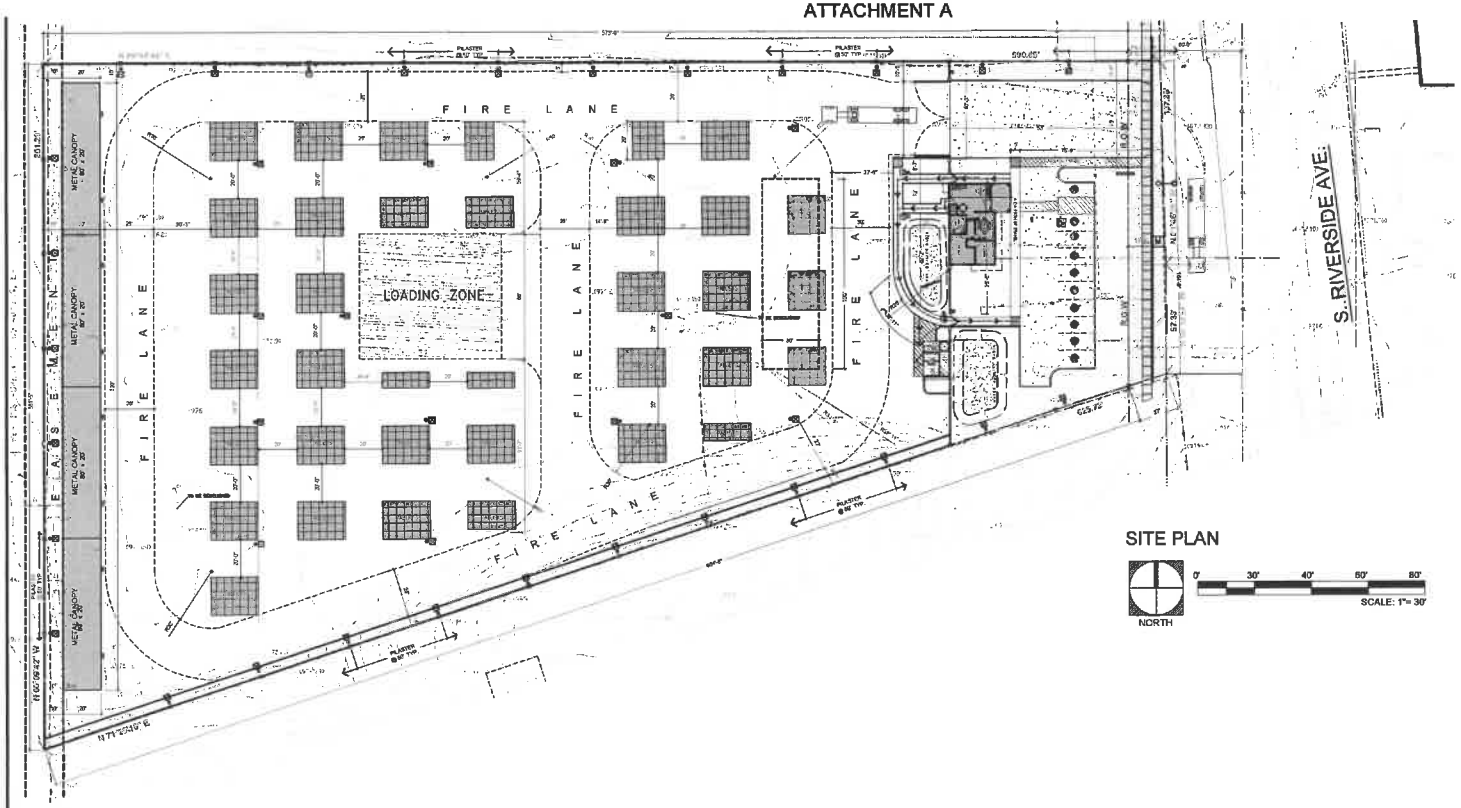
10% Percent From/To Project

Figure 3
Project Trip Distribution - Trucks

ganddini

Industry Pallets
Scoping Agreement
19277

ATTACHMENT A



LandArq
865 S. Milliken Ave. Suite E
Ontario, CA 91761
Office: 909-259-942
email: fausto@landarq.co

Revision	Date
PLAN CHECK REVISIONS	12/17/20
PLAN CHECK REVISIONS	03/2021
-	-
-	-

Prepared For:

Property Owner: Ivan Cort
City Insdustry Pallets
11259 S Riverside
Ave. Bloomington , CA 92

Project Description:

Pallet Repair
&
Pallet Recycle

Sheet Description:

SITE PLAN

Contact:

Fausto A. Reyes RLA
(951)-533-8001

Underground Service Alert
Call: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

Job Number:	20-0
Plot Date:	03/29/2
Drawn By:	JCL / I
Designed By:	F
Approved By:	F

Sheet:

1 Of 7 Sheet

RESOLUTION NO. 2021-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING CONDITIONAL DEVELOPMENT PERMIT NO. 2021-0002 ALLOWING THE OPERATION OF DRIVE-THRU SERVICE IN CONJUNCTION WITH A 2,400 SQUARE FOOT RESTAURANT TO BE LOCATED ON THE SOUTHEAST CORNER OF AYALA DRIVE AND CASMALIA STREET (APN: 1133-591-07) WITHIN THE FREEWAY INCUBATOR (F-I) LAND USE DISTRICT OF THE RENAISSANCE SPECIFIC PLAN.

WHEREAS, the developer, CDM Inc., proposes to establish and operate a vehicular drive-thru service in conjunction with a proposed 2,400 square foot fast-food restaurant building ("Project") located at the southeast corner of Ayala Drive and Casmalia Street (APN: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan ("Site"); and

WHEREAS, pursuant to Table 3-2 (General Permitted Uses) of the Renaissance Specific Plan and Chapter 18.66 (Conditional Development Permits) of the Rialto Municipal Code, the Project requires a Conditional Development Permit, and the applicant has agreed to apply for Conditional Development Permit No. 2021-0002 ("CDP No. 2021-0002"); and

WHEREAS, the Project will consist of a 2,400 square foot commercial building, a drive-thru lane with stacking for approximately ten (10) vehicles, twenty-three (23) parking spaces with adequate lighting, an abundant amount of landscaping, and full pedestrian and vehicle access; and

WHEREAS, also in conjunction with the Project, the developer has applied for Precise Plan of Design No. 2021-0002 to allow the development of a 2,400 square foot restaurant building with a drive-thru lane on the Site ("PPD No. 2021-0002"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on CDP No. 2021-0002 and PPD No. 2021-0002, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed CDP No. 2021-0002 and PPD No. 2021-0002; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to CDP No. 2021-0002, 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. 2021-0002 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 proposes to establish a drive-thru use in conjunction with the proposed 2,400 square foot restaurant building. The proposed project is a speculative development, and the drive-thru operator is unknown at this time. There is currently only one fast-food drive-thru restaurant on the north side of the SR-210 at the Ayala Drive exit. The Project is anticipated to be a benefit to the community and an improvement to the surrounding area by providing an additional choice for fast-food drive-thru at a convenient location. The Project will provide a more diverse economic base for the surrounding area and will provide a necessary service for residents and travelers within the City.

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:

To the east of the Site, across Ayala Drive is the Rialto Center comprised of three (3) retail buildings including a gas station/carwash, multi-tenant retail, and a fast-food drive-thru. To the south and east is similarly zoned vacant land. To the north, across Casmalia Street, are existing single-family residences. The proposed project is required to install enhanced landscaping with berming and hedges to buffer the existing residences to the north. The Project is consistent with the underlying Freeway Incubator (F-I) land use district and the Renaissance Specific Plan. 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 Site is a relatively flat, rectangular-shaped piece of land currently comprised of one (1) parcel totaling 0.64 acres in size with approximate average dimensions of 250 feet (east-west) by 132 feet (north-south) and is currently developed with a non-conforming residence. The project site will be accessed via the driveway on Casmalia Street near the northeast corner of the project site. The Renaissance Specific Plan identifies a raised median for Casmalia Street so the proposed driveway will be restricted to right-in, right-out only access in the future. Upon completion of the Development, the Site will contain 23 parking spaces which meets the minimum required by the Renaissance Specific Plan. In addition, the development will have a trash enclosure, landscaping, lighting, and accessible pathways leading to the public right-of-way.

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 Site is currently developed with adequate access to all utilities and services required through main water, electric, sewer, and other utility lines that will be modified from residential capacity to retail commercial capacity as needed as part of the proposed Project.

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 Incubator (F-I) land use district of the Renaissance Specific Plan. The Project will feature high-quality building exteriors designed in compliance with the City's Design Guidelines. Landscaping has been abundantly incorporated into the site. The landscape coverage for the Project is 12 percent, which exceeds the minimum requirement of the Renaissance Specific Plan. Landscape planters containing trees spaced every thirty (30) linear feet will be installed along the entire perimeter of the Site. Furthermore, the Project includes the installation of 23 parking spaces upon completion of the Project which also meets the minimum requirement of the Renaissance Specific Plan.

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, and 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 F-I land use district and the design criteria of the Renaissance Specific Plan. No potential adverse effects are anticipated and the Project will benefit the community as a whole.

SECTION 3. The project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA), pursuant to Section 15303, New construction or conversion of small Structures. The Planning Commission directs the Planning Division to file the necessary documentation with the Clerk of the Board of Supervisors for San Bernardino County.

SECTION 4. CDP No. 2021-0002 is granted to CDM Inc. 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. 2021-0002 allowing the establishment of vehicular drive-thru service in conjunction with a 2,400 square foot fast-food restaurant to be located at the southeast corner of Ayala Drive and Casmalia Street (APNs: 1133-591-07) within the Freeway Incubator (F-I) land use district of the Renaissance Specific Plan, as shown on the plans submitted to the Planning Division on August 25, 2021, 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, 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 CDP No. 2021-0002.

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 applicant shall install a "DO NOT ENTER" street sign and an illuminated "DO NOT ENTER" directional sign on the drive-side of the drive-thru lane at the exit of the drive-thru lane. The street sign and directional sign shall be identified on the site plan within the building plan check submittal set, prior to the issuance of a building permit. Furthermore, the street sign and the directional sign shall be installed prior to the issuance of the Certificate of Occupancy.

6. The applicant shall paint "EXIT" and a directional arrow within the center of the drive-thru lane at the exit of the drive-thru lane, prior to the issuance of the Certificate of Occupancy.

7. The property owner, and the tenant utilizing the drive-thru use, shall ensure that vehicle stacking/queuing for the drive-thru lane does not create circulation impacts on the Site at all times. The property owner and the tenant shall implement measures to address and eliminate any impacts, should they occur, as required by the Community Development Director.

8. The applicant shall install and maintain a trash receptacle on the driver-side of the exit of the drive-thru lane. The trash receptacle shall be installed prior to issuance of the Certificate of Occupancy.

9. The applicant shall plant shrubs around the entire outer perimeter of the drive-thru lane for the purpose of creating a solid hedge to screen the headlights of vehicles within the drive-thru. All of the drive-thru shrubs shall be a minimum of five (5) gallons in size upon initial planting, and the shrubs shall be spaced no more than three (3) feet on-center.

Thereafter, the drive-thru shrubs shall be permanently irrigated and maintained into a continuous box-shape along the entire length of the drive-thru lane with a height of no less than three and one-half (3.5) feet above the finished grade. The shrubs shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

10. 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.

11. The privileges granted by the Planning Commission pursuant to approval of this Conditional Development Permit are valid for two (2) years from the effective date of approval. If the applicant fails to commence the project within two years 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 two years 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.

12. Approval of CDP No. 2021-0002 will not become effective until the applicant has signed a statement acknowledging awareness and acceptance of the required conditions of approval contained herein

13. 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 Incubator (F-I) 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

14. If the applicant fails to comply with any of the conditions of approval placed upon CDP No. 2021-0002 or PPD No. 2021-0002 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. 2021-0002 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 Incubator (F-I) land use district, the Renaissance Specific Plan, and the City's General Plan.

15. Approval of CDP No. 2021-0002 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 8th day of December, 2021.

_____
FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, Adrianna Martinez, 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 ___th day of ____, 2021.

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 __th day of ___, 2021.

_____

ADRIANNA MARTINEZ, ADMINISTRATIVE ASSISTANT

RESOLUTION NO. 2021-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING PRECISE PLAN OF DESIGN NO. 2021-0002 ALLOWING THE DEVELOPMENT OF A 2,400 SQUARE FOOT FASTFOOD RESTAURANT BUILDING WITH DRIVE-THROUGH SERVICE AND ASSOCIATED PAVING, FENCING, LIGHTING, LANDSCAPING, AND DRAINAGE IMPROVEMENTS ON 1.2 ACRES OF LAND (APN: 1133-591-07) LOCATED AT THE SOUTHEAST CORNER OF AYALA DRIVE AND CASMALIA STREET WITHIN THE FREEWAY INCUBATOR (FI) LAND USE DISTRICT OF THE RENAISSANCE SPECIFIC PLAN.

WHEREAS, the applicant, CDM Inc., proposes to develop a 2,400 square foot fast-food drive-through restaurant building with and associated paving, fencing, lighting, landscaping, and drainage improvements ("Project") on 1.2 acres of land (APN: 1133-591-07) located at the southeast corner of Ayala Drive and Casmalia Street within the Freeway Incubator (FI) land use district of the Renaissance Specific Plan ("Site"); and

WHEREAS, Pursuant to Section 18.65.010 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. 2021-0002 ("PPD No. 2021-0002"); and

WHEREAS, in conjunction with the Project, the applicant has submitted Conditional Development Permit No. 2021-0002 to allow the operation of a drive-through service in conjunction with a 2,400 square foot restaurant on the Site ("CDP No. 2021-0002"); and

WHEREAS, in conjunction with the Project, the applicant has submitted Conditional Development Permit No. 2021-0002 to facilitate the establishment of a drive-through service for the 2,400 square foot fast-food restaurant building on the Site ("CDP No. 2021-0002"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on PPD No. 2021-0002 and CDP No. 2021-0002, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed PPD No. 2021-0002 and CDP No. 2021-0002; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to PPD No. 2021-0002, 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. 2021-0002 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 with a Specific Plan Overlay and is within the Freeway Incubator (FI) land use district of the Renaissance Specific Plan. Those designations are intended to accommodate the development and operation of a restaurant with drive-through facilities with approval of a Conditional Development Permit, which have been filed in conjunction with the Project. Additionally, the Project meets all of the required development standards of the FI land use district including, but not limited to, required building setbacks, parking, landscaping, building height, floor area ratio, etc.

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 Project is consistent with the FI land use district of the Renaissance Specific Plan and the surrounding uses. The project site is bound by Casmalia Street on the north and Ayala Drive on the west. To the north, across Casmalia Street, is an existing residential tract development, and to the west, across Ayala Drive, is a recently constructed fuel station. To the south is vacant land and a San Bernardino County Flood Control Channel, and to the east is approximately 1.56 acres of vacant land. The nearby areas to the east and west

are predominantly designated for and developed with commercial and industrial uses, and area to the north is zoned for residential land use. The project is designed with features and measures, such as enhanced landscape buffering that incorporate berms along the frontage setback, hedge continuous hedges adjacent to drive-thru lane and parking areas and shielding on light standard will be implemented/maintained. Additionally, 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 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 anticipated to be a benefit to the community creating a more diverse economic base for the community by providing additional choices for food at a convenient location. The Project will improve an under-utilized non-conforming use property with desirable improvements that will aesthetically enhance the appearance of the community and visitors exiting the SR-210 Freeway at Ayala Drive. The implementation of the Project's Conditions of Approval will 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 uses are consistent with the FI land use district of the Renaissance Specific Plan. The design of the Project will ensure a continuation of the public improvements and aesthetics present in the surrounding area. The City staff have reviewed the design of the Project to ensure compliance with all health, safety, and design requirements to ensure the Project will enhance the infrastructure and aesthetics of the local community.

SECTION 3. CDM Inc. is hereby granted PPD No. 2021-0002 to allow the development of a 2,400 square foot fast-food drive-through restaurant building with and associated paving, fencing, lighting, landscaping, and drainage improvements ("Project") on 1.2 acres of land (APN: 1133-591-07) located at the southeast corner of Ayala Drive and Casmalia Street within the Freeway Incubator (FI) land use district of the Renaissance Specific Plan ("Site"); and

SECTION 4. The Project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA), pursuant to Section 15303, New construction or conversion of

small Structures. The Planning Commission directs the Planning Division to file the necessary documentation with the Clerk of the Board of Supervisors for San Bernardino County (Environmental Assessment Review No. 2021-0057) for the Project.

SECTION 4. PPD No. 2021-0002 is granted to CDM Inc., in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. The applicant is granted PPD No. 2021-0002 allowing the development of a 2,400 square foot fast-food restaurant building with drive-thru service and associated paving, fencing, lighting, landscaping, and drainage improvements on 0.64 acres of land (APN: 1133-591-07) located at the southeast corner of Ayala Drive and Casmalia Street within the Freeway Incubator (FI) land use district of the Renaissance Specific Plan, as shown on the plans attached as "Exhibit A" and as approved by the Planning Commission, subject to the Conditions of Approval contained herein.

2. The approval of PPD No. 2021-0002 is granted for a two (2) year period from the date of approval. Approval of PPD No. 2021-0002 will not become effective until the applicant has signed a Statement of Acceptance acknowledging awareness and acceptance of the required Conditions of Approval contained herein. Any request for an extension shall be reviewed by the Community Development Director and shall be based on the progress that has taken place toward the development of the Project.

3. The development associated with PPD No. 2021-0002 shall comply with all Conditions of Approval contained within CDP No. 2021-0002.

4. The development associated with PPD No. 2021-0002 shall comply with all applicable sections of the Renaissance Specific Plan, the Rialto Municipal Code, and all other applicable State and local laws and ordinances.

5. If there are circulation impacts as a result of vehicles stacking or queuing in the main drive aisles of the Site, the applicant shall implement measures to address and eliminate the impacts, if requested by the Community Development Director.

6. 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.

7. 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.

8. 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.

9. The applicant shall install a "Community Marker" sign at the southeast corner of the project site, near the intersection of Ayala Drive and Casmalia Street, in accordance with Figure 4-1 (Entries and Monuments) of the Renaissance Specific Plan. The "Community Marker" sign shall be setback five (5) feet behind the landscape easement along Ayala Drive and Casmalia Street. The exact location of the "Community Marker" sign shall be identified on the precise grading plan prior to the issuance of a grading permit. The applicant shall obtain a building permit from the Building Division for the "Community Marker" sign, and construction of the "Community Marker" sign shall pass final inspection prior to the issuance of any Certificate of Occupancy.

10. In order to provide enhanced building design in accordance with Section 4 (Design Guidelines) of the Renaissance Specific Plan, the applicant shall route all downspouts through the interior of all structures. The internal downspouts shall be identified within the formal building plan check submittal prior to the issuance of building permits.

11. In order to provide enhanced building design in accordance with Section 4 (Design Guidelines) of the Renaissance Specific Plan, the applicant shall construct parapet returns, at least five (5) feet in depth from the main wall plane, at all height variations on all four

(4) sides of each building. The parapet returns shall be demonstrated on the roof plans within the formal building plan check submittal prior to the issuance of building permits.

12. In order to provide enhanced site design in accordance with Section 4 (Design Guidelines) of the Renaissance Specific Plan, any required bollards shall be constructed in a decorative manner. The decorative design shall be consistent with the overall architecture of the project. The final design of any bollards shall be approved by the Planning Division prior to the issuance of building permits. An elevation detail for any required bollards shall be included within the formal building plan check submittal prior to the issuance of building permits.

13. In order to provide enhanced building design in accordance with Section 4 (Design Guidelines) of the Renaissance Specific Plan, the applicant shall provide internal roof access only for each building. The internal roof access shall be identified within the formal building plan check submittal prior to the issuance of building permits.

14. In order to provide enhanced building design in accordance with Section 4 (Design Guidelines) of the Renaissance Specific Plan, the applicant shall incorporate the mechanical, electrical and utility rooms into the articulated footprint of the building.

15. Any new walls, including any retaining walls, shall be comprised of decorative masonry block. Decorative masonry block means tan-colored slumpstone block, tan-colored split-face block, or precision block with a stucco, plaster, or cultured stone finish. Pilasters shall be incorporated within all new walls. The pilasters shall be spaced a maximum of seventy (70) feet on-center and shall be placed at all corners and ends of the wall. All pilasters shall protrude a minimum of one (1) block course above the wall and a minimum of six (6) inches to the side of the wall. All decorative masonry walls and pilasters, including retaining walls, shall include a decorative masonry cap. All walls and pilasters shall be identified on the site plan, and an elevation detail for the walls shall be included in the formal building plan check submittal prior to the issuance of building permits.

16. Any new fencing installed on site shall be comprised of tubular steel. Decorative masonry or decorative concrete pilasters, with a minimum dimension of sixteen (16) inch square, shall be incorporated within all new fencing visible from any public right-of-way. Decorative masonry block means tan slumpstone block, tan split-face block, or precision block with a stucco, plaster, or cultured stone finish. Decorative concrete means painted concrete with patterns, reveals, and/or trim lines. The pilasters shall be spaced a maximum of seventy (70) feet on-center and shall be placed at all corners and ends of the fencing. All decorative masonry pilasters shall include a decorative masonry cap. All fencing and pilasters shall be identified on the site plan, and an elevation detail for the fencing and pilasters shall be included in the formal building plan check submittal prior to the issuance of building permits.

17. Any new fencing along the frontages of Ayala Drive and Casmalia Street shall be installed at the rear of the landscape setbacks along those street frontages. This will ensure

unobstructed visibility of the Project's landscaping along Ayala Drive and Casmalia Street.

18. The exterior of the trash enclosure shall match the color and materials of the buildings on-site or be comprised of decorative masonry block. Decorative masonry block means tan-colored slumpstone block, tan-colored split-face block, or precision block with a stucco, plaster, or cultured stone finish. Additionally, the trash enclosure shall contain solid steel doors and a flat solid cover. Corrugated metal and chain-link are not acceptable materials to use as a part of the trash enclosure. An elevation detail for the trash enclosure shall be provided within formal building plan check submittal prior to the issuance of building permits.

19. All light standards, including the base, shall have a maximum height of twenty-five (25) feet, as measured from the finished surface. Lighting shall be shielded and/or directed toward the site so as not to produce direct glare or "stray light" onto adjacent properties. All light standards shall be identified on the site plan and a detail indicating the height shall be included within the formal building plan check submittal prior to the issuance of building permits.

20. The applicant shall submit a formal Landscape Plan Review application to the Planning Division prior to the issuance of building permits. The submittal shall include three (3) sets of planting and irrigation plans, a completed Landscape Plan Review application, and the applicable review fee.

21. The applicant shall plant one (1) tree every thirty (30) feet on-center within the on-site landscape setbacks along Ayala Drive and Casmalia Street. All trees within the landscape setback shall be a minimum of twenty-four (24) inch box in size, upon initial planting. Thereafter, the trees within the landscape setback shall be permanently irrigated and maintained by the property owner. At least fifty (50) percent of the trees within the setback shall consist of evergreen broadleaf trees, while the remaining percentage may consist of broadleaf deciduous trees and/or palm trees. The trees shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

22. The applicant shall plant one (1) tree every thirty (30) feet on-center within the public right-of-way parkway along Ayala Drive. All trees within the public right-of-way parkway shall be a minimum of twenty-four (24) inch box in size, upon initial planting. Thereafter, the trees within the public right-of-way parking shall be permanently irrigated and maintained, as required by the Public Works Department. The street tree species along Ayala Drive shall be the Pistachia Chinensis "Chinese Pistache", Hymenosporum Flavum "Wedding Tree" and/or the Koelrueteria Bipinnata "Chinese Lantern". The street trees shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

23. The applicant shall plant one (1) tree every thirty (30) feet on-center within the public right-of-way parkway along Casmalia Street. All trees within the public right-of-way parkway shall be a minimum of twenty-four (24) inch box in size, upon initial planting.

Thereafter, the trees within the public right-of-way parkway shall be permanently irrigated and maintained, as required by the Public Works Department. The street tree species along Casmalia Street shall be the Hymenosporum Flavum "Wedding Tree" and/or the Pistachia Chinensis "Chinese Pistache". The trees shall be identified on the formal Landscape Plan submittal prior to the issuance of building permits.

24. The applicant shall plant a row of shrubs at the rear of the landscape setbacks along Ayala Drive and Casmalia Street for the purpose of creating a solid hedge to screen the headlights of vehicles from within the Site. All of the shrubs shall be a minimum of five (5) gallons in size upon initial planting, and the shrubs shall be spaced no more than three (3) feet on-center. Thereafter, the shrubs shall be permanently irrigated and maintained into a continuous box-shape along the entire length of the landscape setbacks with a height of no less than three and one-half (3.5) feet above the finished grade. The shrubs shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

25. The applicant shall plant shrubs that surround all ground mounted equipment and utility boxes, including transformers, fire-department connections, backflow devices, etc. for the purpose of providing screening of said equipment and utility boxes. All equipment and utility box screen shrubs shall be a minimum of five (5) gallons in size upon initial planting, and the shrubs shall be spaced no more than three (3) feet on-center. Thereafter, the equipment and utility box screen shrubs shall be permanently irrigated and maintained into a continuous box-shape with a height of no less than three and one-half (3.5) feet above the finished grade. The shrubs shall be identified on the formal Landscape Plan submittal prior to the issuance of a landscape permit.

26. The applicant shall plant a substantial amount of trees, shrubs, and groundcover throughout all land on-site and off-site (adjacent to the project 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.

27. 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.

28. The applicant shall install and maintain a trash receptacle on the driver-side of the exit of the drive-thru lane. The trash receptacle shall be installed prior to issuance to the Certificate of Occupancy.

29. The applicant shall install a bicycle rack adjacent to pathway near the restaurant building entrance prior to the issuance of the Certificate of Occupancy.

30. Any tubular steel fencing and/or sliding gates shall be painted black prior to the issuance of a Certificate of Occupancy, unless specified otherwise herein.

31. All non-glass doors shall be painted to match the color of the adjacent wall prior to the issuance of a Certificate of Occupancy.

32. The applicant shall comply with all applicable requirements of the California Fire Code and Chapter 15.28 (Fire Code) of the Rialto Municipal Code.

33. The applicant 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.

34. Prior to issuance of a Certificate of Occupancy, a Business License tax shall be paid based on the Retail Merchant Food rate.

35. Prior to issuance of a Certificate of Occupancy, any Lessor of the property shall pay a business license tax based on the Rental Income Property tax rate.

36. At the discretion of the Rialto Police Department, the applicant shall illuminate all walkways, passageways, and locations where pedestrians are likely to travel with a minimum of 1.0-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.

37. At the discretion of the Rialto Police Department, the applicant shall illuminate all alleyways, driveways, and uncovered parking areas with a minimum of 1.0-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.

38. 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.

39. The applicant shall provide and maintain an illuminated channel letter address prominently placed on the drive-through restaurant building to be visible from the front

of the location and the rear of the location if facing the public street, prior to the issuance of a business license for the self-storage facility. Specifications for the illuminated channel letters are as follows: The illuminated channel letters shall indicate the numerical address of the Site. The channel letters shall be at least twelve (12) inches tall and at least four (4) inches deep with a "white" color face.

40. The applicant, landlord, and/or operator shall install and maintain exterior security cameras on the Site that cover the entire extent of the Site, as approved by the Rialto Police Department. The security cameras shall be accessible to the Rialto Police Department via the internet through FUSUS hardware and application. The security cameras shall be installed and operational prior to the issuance of a business license for the self-storage facility.

41. The applicant shall install and maintain Knox boxes immediately adjacent to the exterior of the main entrance to each building and at least one (1) rear/secondary entrance on each 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.

42. The applicant shall prominently display and maintain the address on the drive-through restaurant 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. The address shall be displayed on the building rooftop accordingly prior to the issuance of a business license.

43. The applicant shall provide and maintain an audible alarm within each building, including at the rear door, prior to the issuance of a business license. 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).

44. The applicant shall comply with all conditions of approval for PPD No. 2021-0002 to the satisfaction of the City Engineer, prior to the issuance of a Certificate of Occupancy.

45. The applicant shall pay all applicable development impact fees in accordance with the current City of Rialto fee ordinance, including any Transportation and Traffic Fair Share Contribution fees, prior to issuance of a building permit.

46. The applicant shall modify the traffic signal at the southeast corner of Casmalia Street and Ayala Ave due to the reconstruction of the curb return and curb ramp. All reconstruction shall meet accessibility requirements.

47. The developer shall be responsible for coordinating with Omnitrans regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The developer shall design street and sidewalk improvements in accordance with the latest Omnitrans bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act (ADA) requirements. The developer shall design all bus stops to accommodate the Omnitrans Premium Shelters. Prior to Certificate of Occupancy, the developer shall submit to Public Works verification from Omnitrans acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines. Additionally, bus turnouts are required to accommodate proposed bus stops in accordance with the City Standards and as approved by the City Engineer.

48. The applicant shall submit a Precise Grading/Paving Plan prepared by a California registered civil engineer to the Public Works Engineering Division for review and approval. The Grading Plan shall be approved by the City Engineer prior to the issuance of any building permit.

49. The applicant shall submit a Geotechnical/Soils Report, prepared by a California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.

50. The applicant shall submit street improvement plans by a registered California civil engineer to the Public Works Engineering Division for review. The plans shall be approved by the City Engineer prior to the issuance of building permits.

51. The applicant shall submit Traffic Striping/Signage plans prepared by a California registered Civil 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 and prior to issuance of a Building Permit. Approved traffic striping and signage plans must include required Class II thermoplastic Bicycle Facilities as referenced on the San Bernardino County Non-Motorized Transportation Plan – June 2018, Figure 5.36, Sheet 5-150.

52. The applicant shall 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 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. Use of 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, prior to issuance of a building permit. 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

53. 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. Any landscaping that fails during the one-year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer and shall be subject to a subsequent one-year landscape maintenance period. 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.

54. All proposed trees within the public right-of-way and within 10 feet of the public sidewalk and/or curb shall have City approved deep root barriers installed in accordance with the Public Works Landscape and Irrigation Guidelines or as approved by the City Engineer.

55. At the discretion of the City Engineer, the applicant shall apply for annexation of the underlying property into City of Rialto Landscape and Lighting Maintenance District No. 2 ("LLMD 2") or enter into a landscape maintenance agreement to be recorded on the property. 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, parkway, and/or easement landscaping, or any new public street lighting improvements, to be maintained by the City of Rialto. All final approved plans and documents required for the annexation shall be submitted by the property owner prior to issuance of a building permit. The annexation process shall be completed prior to recordation of any applicable Final Tract/Parcel Maps. For developments with no Final Maps or if the Final Map does not create any new parcels, the annexation process shall be completed prior to issuance of any certificate of occupancy. Due to the required City Council Public Hearing action, the annexation process takes months and as such the developer is advised to submit all plans and documents required for Special District annexation as early-on in the in the plan review and permitting process to avoid any delays with issuance of permit(s) and certificate(s) of occupancy or approval of final map(s).

56. The applicant shall submit sewer improvement plans by a registered California civil engineer to the Public Works Engineering Division for review. The plans shall be approved by the City Engineer prior to the issuance of building permits.

57. The applicant shall submit copies of approved water improvement plans prepared by a registered California civil engineer to the Public Works Engineering Division for record purposes. The plans shall be approved by West Valley Water District, the water purveyor, prior to the issuance of building permits.

58. The applicant shall submit a wet-signed and stamped Earthwork Cut and Fill Certification Letter prepared by a Civil Engineer registered in the State of California to the Public Works Engineering Division for review. If the required cut or fill of earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit to assist with inspection services.

59. The applicant shall provide pad elevation certification for all building pads, in conformance with the approved Precise Grading Plan, to the Engineering Division prior to construction of any building foundation.

60. Prior to the issuance of Grading/On-site Construction Permit, the applicant shall apply and complete the Special District Annexation for the public street lighting and the public landscape and irrigation into the Landscape and Lighting Maintenance District 2 (LLMD2), including applicable specific plan required landscape easement areas, parkway areas, and raised medians along the property frontage.

61. At the discretion of the City Engineer, the applicant shall submit off-site landscaping and irrigation system improvement plans for review and approval at the time of first (1st) public improvement plan submittal to the Public Works Department. The parkway irrigation system shall be separately metered from the on-site private irrigation to be maintained for a period of one (1) year and annexed into a Special District. The off-site landscape and irrigation plans must show separate electrical and water meters to be annexed into the Landscape and Lighting Maintenance District No. 2 via a City Council Public Hearing. The landscape and irrigation plans shall be approved concurrently with the street improvement plans, prior to issuance of a building permit. The landscaping architect must contact the City of Rialto Landscape Contract Specialist at (909) 772-2635 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.

62. The applicant is responsible for requesting from the Public Works Department any addresses needed for any building(s) and/or any electrical single/dual irrigation meter pedestal(s). 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.

63. Any dry utility improvements within the public right-of-way require a City of Rialto Encroachment Permit.

64. A single master Off-site Construction Permit is required for any street, wet utility, landscape and irrigation, and traffic signal improvements along the project frontage within the public right-of-way. In an effort to expedite and facilitate improvements in the public right-of-way, the applicant is responsible for submitting a multi-phase master plan traffic control plan which includes all phases of construction along the project frontage in the public right-of-way i.e. sewer, water, overhead, underground, etc. prior to the issuance of an Off-site Construction Permit. Note, in an effort to simplify the permitting process, a single master Off-Site Construction Permit shall replace individual Encroachment Permits to be pulled by the developer's contractor.

65. 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 in the course of the review and approval of street improvement plans required by these conditions.

66. 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. Unless the City Engineer provides prior authorization, paving of streets in one lift prior to completion of on-site construction is not allowed. If City Engineer authorized, completion of asphalt concrete paving for streets prior to completion of on-site construction activities, requires 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 determined by the City Engineer.

67. All street cuts for utilities shall be repaired 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.

68. In accordance with City Ordinance No. 1589, adopted to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be subject to moratorium street repair standards as reference in Section 11.04.145 of the Rialto Municipal Code.

69. The applicant shall backfill and/or repair any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development, in accordance with City of Rialto Standard Drawings. The applicant shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets 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 resulting from 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.

70. The applicant shall replace all damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and streetlights, associated with the proposed development as required by the City Engineer prior to issuance of a Certificate of Occupancy.

71. The applicant shall reconstruct any broken, chipped, or unsatisfactory sidewalks or curbs along the entire project frontage, in accordance with the General Plan and the City of Rialto Standard Drawings, as required by the City Engineer, prior to the issuance of a Certificate of Occupancy.

72. All drive-thru isles adjacent to the public right-of-way or ingress and egress points of vehicular access must include Planning Division approved screening along the perimeter to prevent blinding oncoming traffic with high beam headlights during nighttime hours of operation.

73. CASMALIA STREET: Construct a raised and landscaped median island along the frontage of the property in accordance with the City Standards and any applicable Specific Plan. Refer to the City Standards and Renaissance Specific Plan for specific dimensions. The median nose width shall have stamped concrete. The left turn pockets shall be City Engineer approved and designed in accordance with Section 405 of the current edition of the Caltrans Highway Design Manual and/or as approved by the City Engineer. In lieu of constructing the raised median, the developer shall pay its fair share of the cost to construct the median and install landscaping and irrigation systems.

74. CASMALIA STREET: Dedicate additional right-of-way along the entire frontage as may be required to provide a property line – corner cutback at the corner of the Casmalia Street and Ayala Ave. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance, as required by the City Engineer.

75. CASMALIA STREET: Dedicate additional right-of-way along the entire frontage as may be required to provide a property line at fifty (50) feet south of centerline in accordance with the City General Plan and/or any applicable Specific Plan. Submit legal description and plat for city review with the street improvement plans.

76. CASMALIA STREET AND AYALA AVE: Dedicate a ten (10) feet wide easement for landscape purposes along the entire frontage as required by the applicable Specific Plan and in accordance with the City of Rialto Standard Drawings. Submit legal description and plat for city review with the street improvement plans.

77. CASMALIA STREET: Remove existing and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire half-width street frontage 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 the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve existing pavement improvements.

78. CASMALIA STREET: Construct an 8-inch curb and gutter along the entire frontage in accordance with City of Rialto Standard Drawings and the applicable Specific Plan.

79. CASMALIA STREET AND AYALA AVE: Construct a new underground electrical system for public street lighting improvements. New marbelite street light poles with LED light fixtures shall be installed in accordance with City of Rialto Standard Drawings and as approved by the City Engineer. Provide 2" conduit and pull boxes along the opposite side of the street for continuation of the street light system for future build out.

80. CASMALIA STREET: Construct a six feet wide Americans with Disabilities Act (ADA) compliant sidewalk improvements adjacent to the right of way along the entire frontage in accordance with the Renaissance Specific Plan and the City of Rialto Standard Drawings.

81. CASMALIA STREET: Construct a commercial driveway approach in accordance with City of Rialto Standard Drawing No. CS-214 with a six feet wide sidewalk. The driveway approach shall be constructed so the top of "X" is 5 feet from the property line, or as otherwise approved by the City Engineer. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance. The width of the driveway and radii of the returns shall be approved by the City Engineer.

82. Construct a curb return and curb ramp meeting current California State Accessibility standards at the corner of Casmalia Street and Ayala Ave in accordance with City of Rialto Standard Drawings.

83. AYALA AVE: Replace existing sidewalk as needed to create Americans with Disabilities Act (ADA) compliant sidewalk improvements behind curb along the entire frontage in accordance the City of Rialto Standard Drawings.

84. The applicant shall provide construction signage, 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.

85. Upon approval of any public improvement plan by the City Engineer, the improvement plan shall be provided to the City in digital format, 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.

86. The applicant shall construct 4-inch conduit within the parkway area along the entire project frontages of Ayala Drive and Casmalia Street for future use (i.e., fiber-optics, etc.), prior to the issuance of a Certificate of Occupancy.

87. The applicant shall install "No Stopping Any Time" R26A(S) (CA) signage along the entire frontages of Ayala Drive and Casmalia Street, prior to the issuance of a Certificate of Occupancy.

88. The applicant shall dedicate a 10-foot-wide landscape easement along the entire project frontage of Casmalia Street, as required by the City Engineer.

89. The applicant shall dedicate additional right-of-way along the entire frontage of Ayala Drive, as necessary, to provide the ultimate half-width of 50 feet, or greater as needed for the future SR210/ Ayala Drive interchange project as required by the City Engineer.

90. The applicant shall dedicate a 10-foot-wide landscape easement along the entire project frontage of Ayala Drive, as required by the City Engineer.

91. The applicant shall dedicate additional right-of-way as may be required to provide a property line corner cutback at the southeast corner of the intersection of Ayala Drive and Casmalia Street, in accordance with City Standard SC-235, as required by the City Engineer.

92. The applicant shall dedicate additional right-of-way as may be required to provide property line corner cutbacks at the corners of all new project driveways, in accordance with City Standard SC-235, as required by the City Engineer.

93. At the discretion of the City Engineer, the applicant shall remove existing pavement and construct new pavement with a minimum pavement section of 4 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire frontages of Ayala Drive and Casmalia Street 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 the project site and submitted to the City Engineer for approval. Pavement shall extend from clean sawcut edge of pavement at centerline of each street

94. At the discretion of the City Engineer, the applicant shall provide a cost estimate for review and approval by the City Engineer and pay an in-lieu fee equal to the estimate for the removal of existing and the construction of any new street pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire half-width street frontage in accordance with City of Rialto Standard Drawings. The estimate shall assume a pavement section using a Traffic Index ("TI") of 10 and using "R" values from the project site.

95. Prior to the issuance of any building permit, the applicant shall provide a fair-share contribution towards roadway improvements at the intersections of Ayala Drive and Casmalia Street and Ayala Drive and SR-210 Freeway Westbound Ramps, as calculated using trip generation in the Traffic Impact Analysis Scoping Agreement prepared for the project.

96. At the discretion of the City Engineer, the applicant shall construct an 8-inch curb and gutter, located 36 feet south of the centerline along the entire frontage of Casmalia Street, in accordance with City of Rialto Standard Drawings, as required by the City Engineer.

97. At the discretion of the City Engineer, the applicant shall construct a 6-foot-wide sidewalk located 8 feet behind the edge of curb along the entire project frontage of Casmalia Street, in accordance with City of Rialto Standard Drawing, as required by the City Engineer.

98. At the discretion of the City Engineer, the applicant shall construct a 5-foot-wide sidewalk located 7 feet behind the edge of curb along the entire project frontage of Ayala Drive, in accordance with City of Rialto Standard Drawings.

99. The applicant shall construct the five (5) proposed commercial driveway approaches in accordance with City of Rialto Standard Drawing SC-214. The driveway approaches shall be constructed so the top of "X" is 5 feet from the property line, or as otherwise approved by the City Engineer. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance.

100. The applicant shall construct curb ramps meeting current California State Accessibility standards along both sides of each commercial driveway approach. 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.

101. The applicant shall construct a curb ramp meeting current California State Accessibility standards at the southeast corner of the intersection of Ayala Drive and Casmalia Street, in accordance with the City of Rialto Standard Drawings. The applicant shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the westerly 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.

102. The minimum pavement section for all on-site pavements shall be 2½ 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.

103. The developer shall connect to the City of Rialto sewer system and apply for a sewer connection account with Rialto Water services.

104. Prior to issuance of a certificate of occupancy or final City approvals, provide certification from Rialto Water Services to demonstrate that all water and/or wastewater service accounts have been documented.

105. The developer is advised that domestic water service is provided by West Valley Water District. The developer shall be responsible for coordinating with West Valley Water District and complying with all requirements for establishing domestic water service to the property.

106. Prior to performing work in the public right of way, developer shall bond for the public improvements in accordance with Municipal Code requirements.

107. Prior to the issuance of a Certificate of Occupancy, the Project Applicant shall construct all public improvements to the satisfaction of the City Engineer including improvements at the intersection of Ayala Drive and Casmalia Street.

108. The applicant shall adhere to the City Council approved franchise agreements and disposal requirements during all construction activities, in accordance with Section 8.08 (Refuse Collection of the City of Rialto Municipal Code), any and all construction refuse/debris and recycling materials generated and disposed due to construction activities must adhere to City Council approved franchise agreements. Only City Council approved waste and refuse franchisee vendors can be used to dispose of generated construction waste. Currently, only Burrtec Waste Management is authorized to deal with construction refuse and recycle materials in the City of Rialto.

109. The applicant's contractors shall submit copies of recycling tickets demonstrating minimum compliance with construction waste management recycling requirements as well as chain of custody for all construction debris.

110. Prior to commencing with any grading, the applicant shall implement the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified:

    a. 6 foot high tan colored perimeter screened fencing;
    b. Contractor information signage including contact information along the street frontage of Ayala Drive and Casmalia Street; and,
    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/1-800-228-7664."

111. The applicant shall submit a 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. 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. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer. The 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. R8-2010-0036. Pursuant to the NPDES Permit, the Applicant 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 Applicant 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.

112. The applicant shall prepare a Notice of Intent (NOI) to comply with the California General Construction Stormwater Permit (Water Quality Order 2009-0009-DWQ as modified September 2, 2009) 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 prior to issuance of a grading or building permit. The applicant'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.

113. Development of the site is subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Permit for the City of Rialto, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. 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.

114. Prior to issuance of a certificate of occupancy or final City approvals, the applicant shall demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.

115. 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. Provide a 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. 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.

116. 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. All on-site and off-site designs must comply with NPDES stormwater regulations.

117. The applicant shall remove any graffiti within 24 hours, before, during, and post construction.

118. In accordance with the City of Rialto Municipal Code Section 18.72.010, Provision D, inadequately maintained landscaping which is visible from the public street, or right-of-way and which, either alone or in combination with other conditions on the subject property tends to degrade the aesthetic quality of the immediate neighborhood is prohibited.

119. 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.

120. 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.).

121. The applicant shall design all structures in accordance with the 2019 California Building Code, 2019 California Mechanical Code, 2019 California Plumbing Code, and the 2019 California Electrical Code, 2019 Residential Code and the 2019 California Green Buildings Standards adopted by the State of California.

122. The applicant shall design all structures to withstand ultimate wind speed of 130 miles per hour, exposure C and seismic zone D.

123. As applicable, the applicant shall submit fire sprinkler, fire alarm systems, and fire hydrant plans to the Building Division for plan review concurrently with building plans and shall be approved prior to the issuance of a building permit.

124. Prior to the issuance of a building permit for the drive-through restaurant building, the applicant shall provide two (2) copies of plans approved by the San Bernardino County Department of Health for review by the Building Division.

125. 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.

126. The applicant shall install any permitted temporary construction trailer on private property. No trailers are allowed to be located within the public right-of-way.

127. The applicant shall design and construct accessible paths of travel from all 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.

128. 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.

129. 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.

130. All on site utilities shall be underground to the new proposed structure, unless prior approval has been obtained by the utility company or the City.

131. 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.

132. The applicant shall provide proof of payment to the Rialto Unified School District for all required school fees, prior to the issuance of a building permit.

133. 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.

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 8th day of December, 2021.

_____

FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, Adrianna Martinez, 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 ___th day of ____, 2021.

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 __th day of ___, 2021.

_____

ADRIANNA MARTINEZ, ADMINISTRATIVE ASSISTANT

"Exhibit A"

File #: PC-21-0931, **Version:** 1, **Agenda #:**

For the Planning Commission Meeting of December 8, 2021

TO: Honorable Chairman and Planning Commissioners

APPROVAL: Sean M. Moore, AICP, Director of Community Development

FROM: Dionne Harris, Senior Planner

Precise Plan of Design No. 2021-0043: A request to allow the development of a 204-unit apartment complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a 3,210-square foot leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan. A Mitigated Negative Declaration (**Environmental Assessment Review No. 2021-0045**) has been prepared for consideration in conjunction with the project.

Variance No. 2021-0001: A request to allow a variance from Section 18.58.060B of the Rialto Municipal Code (RMC) to reduce the minimum required parking from 459 parking spaces to 367 parking spaces, as it relates to a proposal to develop a 204-unit apartment complex on 8.02± acres of land (APNs: 0133-174-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) land use district of the Foothill Boulevard Specific Plan. A Mitigated Negative Declaration (**Environmental Assessment Review No. 2021-0045**) has been prepared for consideration in conjunction with the project.

APPLICANT:

Frontier Enterprises, LLC, 2151 E Convention Center Way Suite 222, Ontario, California 91764

LOCATION:

The project site consists of four (4) parcels of land located at 534 E Foothill Boulevard on the north side of the street approximately 200 feet east of Acacia Avenue (APNs: 0133-171-07, -08, -09, & -31) (Refer to the attached Location Map (**Exhibit A**)).

BACKGROUND:

Surrounding Land Use and Zoning

Location	***Existing Land Use***	***Zoning***
Site	Vacant Land	Residential-Mixed Use (R-MU)
North	Single-Family Residences	Residential-Mixed Use (R-MU) / Single-Family Residential (R-1C)
East	Apartment Complex / Used Car Dealership	Multi-Family Residential (R-3) / Residential-Mixed Use (R-MU)
South	Shopping Center	Commercial Pedestrian (C-P)
West	Single-Family Residences / Auto Repair Facility	Residential-Mixed Use (R-MU) / Commercial Pedestrian (C-P)

General Plan Designations

Location	***General Plan Designation***
Site	Specific Plan (Foothill Boulevard SP)
North	Specific Plan (Foothill Boulevard SP) / Residential 6
East	Specific Plan (Foothill Boulevard SP) / Residential 21
South	Specific Plan (Foothill Boulevard SP)
West	Specific Plan (Foothill Boulevard SP)

Site Characteristics
The project site is a relatively flat, asymmetrical-shaped piece of land comprised of four (4) parcels. The parcels are 8.02± gross acres with approximate dimensions of 689 feet (east-west) by 610 feet (north-south) at the widest extents. The property is undeveloped and covered by vegetation.

Surrounding Area
To the north of the project site are several single-family residences, and to the east is a 48-unit apartment complex and a used car dealership. To the south, across Foothill Boulevard, is the Acacia Plaza shopping center comprised of several structures totaling approximately 87,500 square feet in size, and to the west are several single-family residences and an auto repair facility.

ANALYSIS/DISCUSSION:

Project Proposal
Frontier Enterprises, LLC, proposes to consolidate four (4) parcels of land into one (1) new 8.02± acre parcel and then construct a 204-unit apartment complex on the project site (**Exhibit B**). The proposed development is comprised of seven three-story residential buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a third, 3,210- square feet leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi,

firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas.

Floor Plan
The proposed residential units would consist of one- to three-bedroom units, ranging between 722 square feet to 1,132 square feet, configured in four buildings that contain 24 units and three buildings that contain 36 units. Each floor plan will have a washer and dryer, the first floor apartments will have 100 square foot balconies and the second floor and third floor apartments will have a 60 square foot balconies (**Exhibit C**).

Entitlement Requirements
Per Table 3.1 (Permitted Uses) of the Foothill Boulevard Specific Plan, the establishment of 204-apartment units within the R-MU zone is permitted by right. The request to reduce parking from 2.25 to 1.8 per dwelling unit, within the R-MU zone is subject to the approval of a variance by the Planning Commission, pursuant to RMC Section 18.64.040. The applicant complied with this requirement and filed a Variance application on September 10, 2021. The application was deemed complete on November 29, 2021.

Lot Merger
The applicant has filed Lot Line Adjustment No. 2021-0007 to facilitate the merger of four (4) existing parcels of land that comprise the project site into one (1) 8.02 net acre parcel of land. Pursuant to Table 3.2 (Development Standards) (R-MU) requires a minimum lot size of 10,000 square feet. The proposed parcel greatly exceeds the minimum parcel size requirement for the R-MU zone. Lot Line Adjustment No. 2021-0007 does not require Planning Commission action. The Community Development Department and Public Works Department will process Lot Line Adjustment No. 2021-0007 upon completion of the entitlement process for the applicant's Conditional Development Permit and Precise Plan of Design applications.

Site Layout
In total, the project site includes eight buildings. The southern portion of the lot adjacent to Foothill Boulevard includes three. They are two residential buildings and a third building that includes the leasing office and a clubhouse. The southern portion of the site also includes a pool and Jacuzzi, firepits, an outdoor kitchen with barbeque grills and table seating, shaded cabanas, pool-side lounge areas, a tot lot playground area and a yoga lawn outside the clubhouse.

The northern portion of the site includes two residential buildings to the west and a three-building cluster on the east side. In addition, an enclosed dog park is located in the northwest corner and two additional outdoor BBQ grills and table seating are located near the three-building cluster on the east side of the project site.

Parking areas are distributed throughout the site with surface parking along the perimeter of the project site (along the west, north, and east boundaries) and the perimeter of building clusters.

The proposed site plan includes landscaping, which serve as common greenspace for residents, in and around the buildings, as well as landscaping around the perimeter of the site by designated parking areas. A variety of trees would be planted throughout the site and parking areas to provide ample shade cover. The driveway entrances include decorative pavers, and the frontage of the project site would include a landscape mesh screen, consistent with the design elements identified in the Foothill Boulevard Specific Plan to create a distinct sense of place that is compatible with existing

development in the vicinity of the project site. All of the buildings will be set back at least ten (10) feet from the property lines of any of the adjacent residential uses. Additionally, a six (6) foot high perimeter block wall, five (5) foot landscape planters, and the parking and drive-aisle areas are placed around the perimeter of the project site, serving as an additional buffer from the surrounding uses.

Floor Plan
The proposed residential units would consist of one- to three-bedroom units, ranging between 722 square feet to 1,132 square feet, configured in four buildings that contain 24 units and three buildings that contain 36 units. Each floor plan will have a washer and dryer, the first floor apartments will have 100 square foot balconies and the second floor and third floor apartments will have a 60 square foot balconies (**Exhibit C**).

Architectural Design
Each building will feature an articulated footprint through the incorporation of recessed niches on all four (4) sides of each building. All buildings will have an exterior stucco finish painted with a palette of three (3) different colors. The main wall sections and recessed wall sections will be painted a light tan, the projecting wall sections will be painted a dark tan, and the trim lines and roof lines will be painted brown. All buildings feature concrete tile roofs over all building entrances, select second floor windows and at building corners. Other key features include wrought iron accents, metal guardrail, and corbels (**Exhibit D**).

Access
The project will have two (2) points of access along Foothill Boulevard. The westerly driveway will be limited to right-in/right-out access only, while the easterly driveway will have full access through a median break and for access through the easterly driveway a traffic signal will be installed. Each driveway will connect to a drive-aisle system that loops around the interior of the property and around all the buildings. Access to the driveways will be provided via new half-width street improvements along the entire project frontage.

Parking
The Foothill Boulevard Specific Plan refers to parking space requirements as specified in the RMC. Pursuant to RMC Section 18.58.060, two parking spaces are required for each dwelling unit and one guest parking space is required for every four dwelling units. At 2.25 spaces per dwelling unit, 459 parking spaces are required for a 204-unit project. The proposed site plan includes a total of 367 parking spaces, which is ninety-two (92) spaces short (or a 20% proposed reduction) and amounts to 2.05 parking spaces per dwelling unit.

Type of Use	***Parking Ratio***	***Number of spaces***
Multiple-Family Residential Required	Pursuant to 18.58.060	
Parking Spaces (at least 1 covered)	2 per dwelling unit	408
Guest Spaces	1 per 4 dwelling units	51
Proposed Site Plan		
Parking Spaces (includes covered spaces)	1.8 per dwelling unit	316

Guest Spaces	1 per 4 dwelling units	51
Total Required/Total Provided		**459/367**
Proposed Reduction		**20%**

Variance
As described in the previous section, the project does not meet the 459 parking spaces (or 2.25 spaces per dwelling unit) required pursuant to RMC Section 18.58.060. The applicant is requesting a 20% parking reduction. Justification for the parking reduction is based on the Institute of Transportation Engineers (ITE) Parking Generation Manual 5th Edition, which surveyed 62 sites with an average parking supply of 1.7 spaces per unit. Based on the survey the weekday peak parking demand for multifamily developments was determined to be 1.31 spaces per unit.

The purpose of a Variance is to provide flexibility to prevent practical difficulties or unnecessary hardships that occur through the strict enforcement of development standards. However, the following findings from Section 18.64.020 of the RMC must be made prior to Planning Commission approval of the Variance.

1. That there are exceptional circumstances or conditions applicable to the property involved, or to the intended use of the property, that do not apply generally to the property or class of use in the same vicinity or district.

The City requires on-site retention of stormwater. Due to the size, slope, and location of the site, a large retention basin is required. Due to the high demand for multi-family residential in the City, the applicant elected to not reduce the total number of dwelling units to accommodate the retention basin and the applicant is requesting a reduction in parking instead.

2. That such variance is necessary for the preservation and enjoyment of a substantial property right of the applicant as possessed by other property owners in the same vicinity and district.

Developing a residentially zoned property for residential purposes in a manner consistent with

allowed densities is a substantial property right. Given that a large retention basin is required, reduction of parking is necessary for the applicant to preserve and enjoy that right.

3. That the granting of such variance will not be materially detrimental to the public welfare or injurious to the property or improvements in such vicinity and district in which the property is located.

According to the survey conducted by the ITE, multi-family development peak weekday parking demand is 1.3 parking spaces per dwelling unit. At 1.8 parking spaces per dwelling unit, as proposed, the project will supply sufficient parking. Moreover, the development is well designed and will not be unsightly or otherwise injurious to the property or improvements in the vicinity or detrimental to public welfare.

4. That the granting of such variance will not adversely affect the master plan.

Granting the variance will facilitate the development of a high-quality apartment complex in keeping with General Plan Land Use Element Goal 2-20, which directs the City to "Require high-quality multi-unit design, landscaping, and architecture."

Landscaping
The landscape coverage for the project is 18.1 percent, which greatly exceeds the minimum required amount of 5.0 percent. The landscape setback will feature undulating berms and an abundant amount of trees, shrubs, and ground cover (**Exhibit E**).

Floor Area Ratio
Per Table 3.2 (Development Standards) of the Foothill Boulevard Specific Plan, the maximum allowable Floor Area Ratio (FAR) for an R-MU project site is 4.0 or 400%. The FAR for the proposed project is 0.66 or 66%, which is far below the maximum allowed.

Economic Development Committee
The *Economic Development Committee* (EDC) reviewed the project on June 23, 2021. The project was presented by the applicant, Frontier Enterprises, showing conceptual plans for the 204-unit apartment complex. The presentation included several examples of apartment projects in the Inland Empire that provided an average of 1.72 parking spaces per dwelling unit on average. The EDC considered the presentation, including the necessary reduction in parking spaces, and recommended approval of the project.

Transportation Commission
Urban Crossroads Associates, Inc. prepared a traffic study for the project, dated August 13, 2021. The study assessed potential impacts to local streets and intersections. The Transportation Commission reviewed and approved the traffic study on November 3, 2021. A total of 1,110 daily Passenger Car Equivalent (PCE) trips are anticipated, with 73 AM peak hour trips and 90 PM peak hour trips. The traffic study determined that the project is responsible for "fair-share" payments towards improvements at the intersections of Riverside Avenue and Foothill Boulevard and Sycamore Avenue and Foothill Boulevard. While the intersection of the Project's easterly driveway & Foothill Boulevard is anticipated to operate at an unacceptable LOS during EAPC (2024) conditions and is warranted for a traffic signal under Existing (2021) conditions, installing a traffic signal or additional lane improvements beyond those to be implemented by the Project, have not been

recommended. Installing a traffic signal would improve the intersection to an acceptable LOS and it would serve both the Project as well as the existing commercial retail property to the south, but it is important to note that the deficiency of the intersection is entirely caused by the high side street delays of vehicles waiting to turn onto Foothill Boulevard at the Project easterly driveway (Driveway 2) and the southern property's driveway. The through traffic on Foothill Boulevard will not be affected under EAPC (2024) traffic conditions and as delays increase, traffic at these locations may opt to utilize a different driveway (and will operate with acceptable LOS).

Upon approval of the traffic study, the Transportation Commission conditioned the applicant to install a raised median and a traffic signal within Foothill Boulevard from Acacia Avenue to the east end of the project site prior to the issuance of a Certificate of Occupancy. As identified in the Foothill Boulevard Specific Plan, a median break will be provided at the easterly driveway. This median break and traffic signal will continue to provide full access movements to and from the Acacia Plaza shopping center and for access through the easterly driveway a traffic signal will be installed (**Exhibit F**).

Half-width street improvements, previously noted, and payment of development impact fees related to traffic are also required. All street improvements and "fair-share" payments, as established by the traffic study, must be paid and/or completed prior to occupancy.

Land Use Compatibility
The project is consistent with the R-MU zone of the Foothill Boulevard Specific Plan and the surrounding land uses. The most sensitive uses near the project site are the single-family residences to the north and west of the project site. The project is not expected to negatively impact any uses since measures, such as landscape buffering, increased setbacks, and the installation of solid walls, will be implemented. The project is anticipated to be a benefit to the community and an improvement to the surrounding area. Upon completion of the project, the site will be enhanced aesthetically with new structures and landscaping that comply with the City's Design Guidelines.

GENERAL PLAN CONSISTENCY:

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

Goal 2-16: Improve the architectural and design quality of development in Rialto.

Goal 2-20: Require high-quality multi-unit design, landscaping, and architecture.

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

ENVIRONMENTAL IMPACT:

Lilburn Corporation prepared an Initial Study (Environmental Assessment Review No. 2021-0045) for the proposed project in accordance with the requirements of the California Environmental Quality Act (CEQA). The Initial Study is attached to the agenda report (**Exhibit G**). Based on the findings and recommended mitigation within the Initial Study, staff determined that the project will not have an adverse impact on the environment and a Mitigated Negative Declaration was prepared. A Notice of Intent to adopt the Mitigated Negative Declaration for the project was published in the San Bernardino Sun newspaper and mailed to all property owners within 660 feet of the project site. A

twenty (20) day public comment period was held from November 10, 2021, to November 29, 2021. The Planning Division did not receive any public comment letters during the twenty (20) day public comment period.

Additionally, in accordance with California Assembly Bill 52, notices were mailed to six (6) Native American tribes informing them of the project and allowing them to request consultation on the project. The six (6) tribes were given thirty (30) days, from October 4, 2021, to November 4, 2021, to request consultation on the proposed project. One (1) letter was received from the Gabrieleño Band of Mission Indians-Kizh Nation. In the letter, the Kizh Nation requested the ability to place a certified Native American Monitor on-site during all ground disturbing activities. A Condition of Approval is included within the Draft Resolution of Approval for Precise Plan of Design No. 2021-0043 and Variance No. 2021-0001 requiring the applicant to coordinate with the Gabrieleño Band of Mission Indians-Kizh Nation to allow access during all ground disturbance activities. The Gabrieleño Band of Mission Indians-Kizh Nation was informed of the Condition of Approval, to which their response indicated satisfaction.

Although the Initial Study indicates that the project could present a significant effect with respect to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Noise, and Transportation/Traffic, any potential impacts will be mitigated to a level of insignificance through the implementation of the mitigation measures included within the Mitigation Monitoring and Reporting Program (**Exhibit H**).

PUBLIC NOTICE:

Public hearing notices for the proposed project were mailed to all property owners within 660 feet of the project site, and the public hearing notice was published in the San Bernardino Sun newspaper as required by State law.

RECOMMENDATION:

It is recommended that the Planning Commission:

- Adopt the attached Resolution (**Exhibit I**) to approve the Mitigated Negative Declaration for the proposed project and authorize staff to file a Notice of Determination with the Clerk of the Board of San Bernardino County; and

- Adopt the attached Resolution (**Exhibit J**) to approve Precise Plan of Design No. 2021-0043 to allow the development of 204-unit apartment complex comprised of seven three-story buildings with a maximum height of 40 feet and a 3,210-square foot leasing office and clubhouse building, with a recreational pool and barbeque area subject to the findings and conditions therein; and

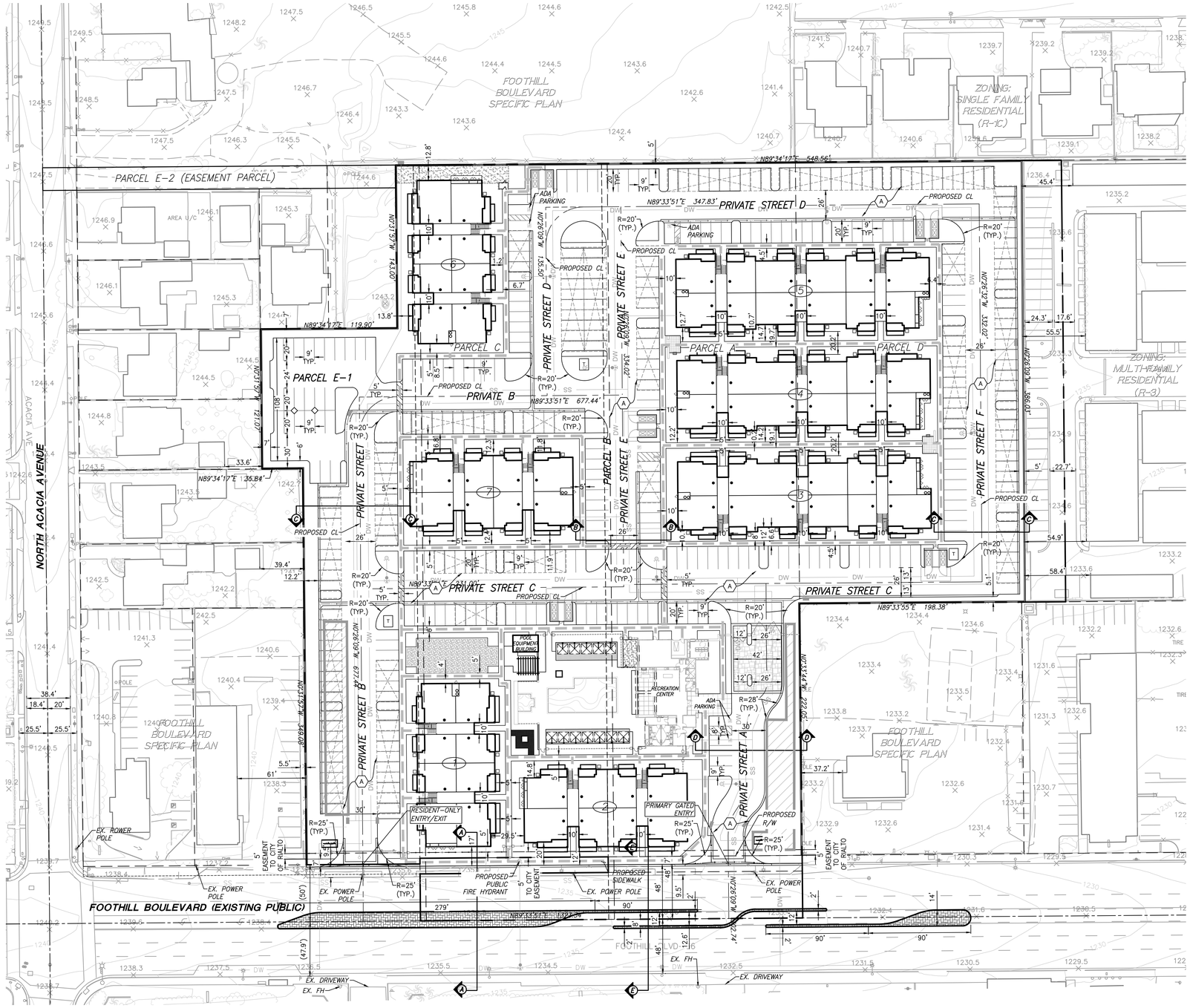
- Adopt the attached Resolution (**Exhibit K**) to approve Variance No. 2021-0001 to allow a 20% parking reduction from the required 459 parking spaces to 367 parking spaces subject to the findings and conditions therein.

Figure 2 Project Site Location



Imagery provided by Microsoft Bing and its licensors © 2021.

Fig 2 Project Site Location



NOTES

1) SEE SHEET C-2 FOR TYPICAL STREET SECTIONS.
2) FOOTHILL BLVD. ENTRANCES SHALL BE COMMERCIAL DRIVEWAYS PER CITY STANDARD NO. SC-214.
3) ADA PATH OF TRAVEL DEPICTED ON SITE PLAN. CURB RAMPS PER APWA STD PLAN 111-5 WILL BE USED FOR VEHICULAR WAY CROSSINGS.

LEGEND

- TRACT BOUNDARY
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPOSED STREET CENTERLINE
- EXISTING STREET CENTERLINE
- EXISTING CONTOUR (XXXX)
- BUILDING NUMBERS (1)
- PROPOSED AC PAVEMENT
- PROPOSED CARPORT PARKING
- PROPOSED 8" PRIVATE SANITARY SEWER (SS)
- PROPOSED 8" PRIVATE DOMESTIC WATER (DW)
- PROPOSED PRIVATE ONSITE FIRE HYDRANT
- PROPOSED PRIVATE STORM DRAIN (SD)
- PROPOSED PRIVATE STORM WATER UNDERGROUND INFILTRATION CHAMBERS
- PROPOSED PRIVATE STREET LIGHT
- EXISTING SANITARY SEWER (SS)
- EXISTING DOMESTIC WATER (DW)
- EXISTING PUBLIC FIRE HYDRANT
- EXISTING PUBLIC STREET LIGHT
- ADA PATH OF TRAVEL

PROPOSED EASEMENT

(A) PROPOSED EASEMENT TO THE CITY OF RIALTO FOR PUBLIC UTILITY PURPOSES.

NOTES:
- KNOX BOX WILL BE INSTALLED AT PROPOSED GATES. SEE LANDSCAPE PLANS.
- PROPOSED UNDERGROUND STORM WATER INFILTRATION CHAMBERS WILL BE DESIGNED AND SIZED TO MEET ALL WQMP AND FLOOD CONTROL REQUIREMENTS.

UTILITIES

WATER:	RIALTO WATER SERVICES	909-820-2546
SEWER:	RIALTO WATER SERVICES	909-820-2546
TELEPHONE:	AT&T	1-800-288-2020
NATURAL GAS:	SOUTHERN CALIFORNIA GAS COMPANY	1-800-427-2200
ELECTRICAL:	SOUTHERN CALIFORNIA EDISON	1-800-684-8123
FIRE PROTECTION:	CITY OF RIALTO FIRE DEPARTMENT	909-820-2501
SCHOOL DISTRICT:	RIALTO UNIFIED SCHOOL DISTRICT	909-877-1596
TRASH:	EDCO DISPOSAL	909-877-1596
CABLE:	TIME WARNER	1-888-892-2253

SITE DATA

APN: 0133-171-07, 0133-171-08, 0133-171-09, 0133-171-20, 0133-171-31

GROSS AREA: ±8.02 AC
NET AREA: ±7.66 AC (GROSS LESS PUBLIC STREET DEDICATION)

SPECIFIC PLAN: FOOTHILL BOULEVARD
LAND USE: RESIDENTIAL-MIXED USE (R-MU)
ZONING: FOOTHILL BOULEVARD SPECIFIC PLAN

UNIT MIX:
1 BR: 93
2 BR: 90
3 BR: 21
TOTAL UNITS: 204

PROPOSED DENSITY: 25.52 DU/AC
MAXIMUM ALLOWABLE DENSITY: 26.6 DU/AC
BUILDING CONSTRUCTION TYPE VB (ATTACHED APTARTMENTS)
R2 OCCUPANCY (ATTACHED APARTMENTS)

PARKING:
REQUIRED:
2.0 SPACES/UNIT X 204: 408
0.25 GUEST SPACES/UNIT X 204: 51
TOTAL REQUIRED: 459

PROVIDED:
CARPORT SPACES: 204
UNCOVERED SPACES: 163
ON-STREET PARKING (ADA): 4
TOTAL: 367

N

40 0 20 40 80
SCALE 1" = 40'

NO.	DATE	REVISIONS	CITY OF RIALTO APP.	DATE
5				
4				
3				
2				
1				

APPLICANT:
FRONTIER COMMUNITIES
2451 EAST CONVENTION CENTER WAY, SUITE 114
ONTARIO, CA 91764
CONTACT: TIM NGUYEN (909) 354-8000

PREPARED BY:
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REGISTERED PROFESSIONAL ENGINEER CRAIG F. JOHNSON No. 45838 CIVIL STATE OF CALIFORNIA

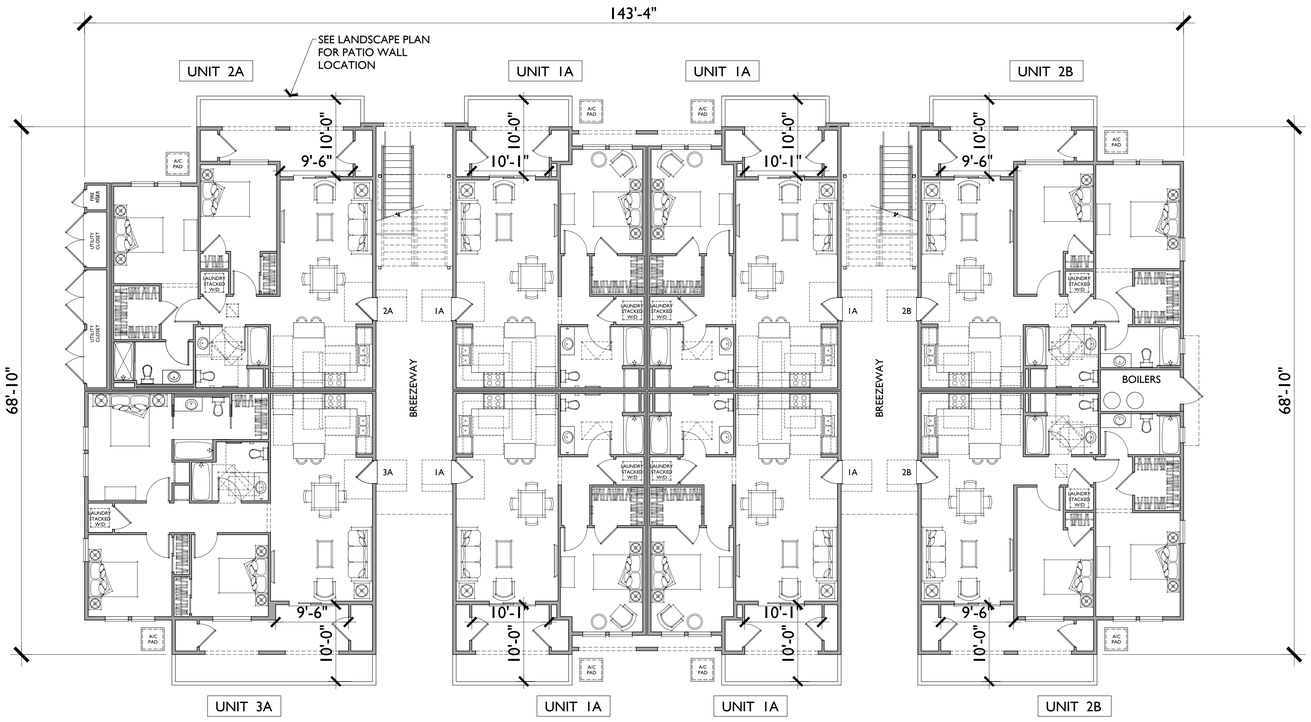
DESIGNED BY ATS
DRAWN BY ATS
CHECKED BY CFJ
DATE 09/03/2021

RIALTO FOOTHILL APARTMENTS
RIALTO, CALIFORNIA

SITE PLAN

SHEET C-1 OF 6 SHEETS
JOB NO. R314182.01

Q:\R314182.01 -RIALTO APARTMENTS\10 CADD & BIM\10.13 CIVIL\PRODUCTION\PRELIMINARY ENGINEERING\PRELIMINARY SITE PLAN\RIALTO FOOTHILL APARTMENTS - ENGINEERING SITE PLAN.DWG SAVED BY:LWILSON 3/16/2017 11:34 AM



BLDG A-2 = 13,462 S.F.

BLDG A-1 = 13,091 S.F.

PLAN NO.	# OF BEDROOM	NO./BLDG.	GROSS S.F.	NET S.F.	STORAGE	DECK / PATIO	TOTAL RESIDENTIAL GROSS S.F.
1A	1 BR	12	746	702	225 CU. FT.	66 S.F. / 128 S.F.	8952
2A	2 BR	7	973	925	252 CU. FT.	62 S.F. / 124 S.F.	6811
2B	2 BR	2	981	929	252 CU. FT.	- / 124 S.F.	1962
3A	3 BR	3	1106	1051	293 CU. FT.	62 S.F. / 128 S.F.	3318
COMMON AREA			3045				3045
UTILITIES			90				90
TOTAL STORAGE							650
COVERED DECK							1536
OTHERS							189
TOTAL		24					**26553**

11.11.21

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fax. +1 949 553 0548

BUILDING A (24 PLEX)

First Floor

RIALTO FOOTHILL APARTMENTS

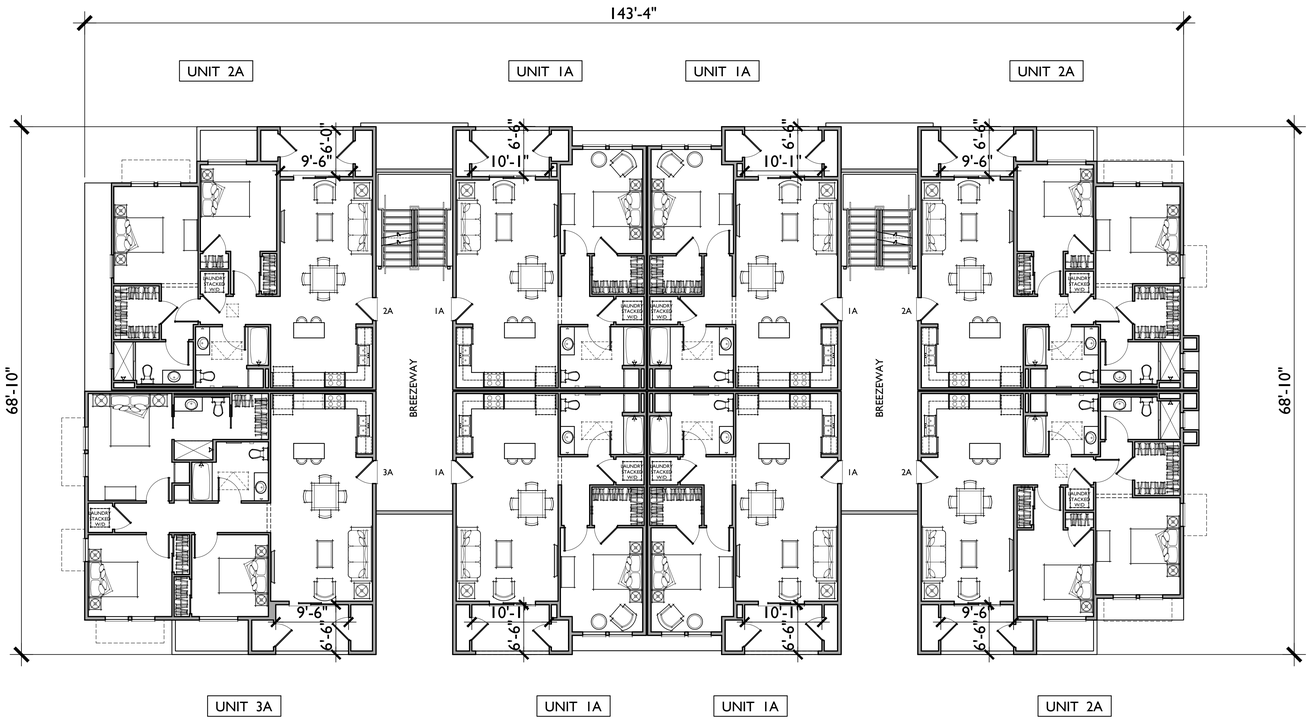
Rialto , California

0 4 8 16

881.21241

A2.1

FRONTIER COMMUNITIES



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BUILDING A (24 PLEX)

Second Floor

RIALTO FOOTHILL APARTMENTS

Rialto , California

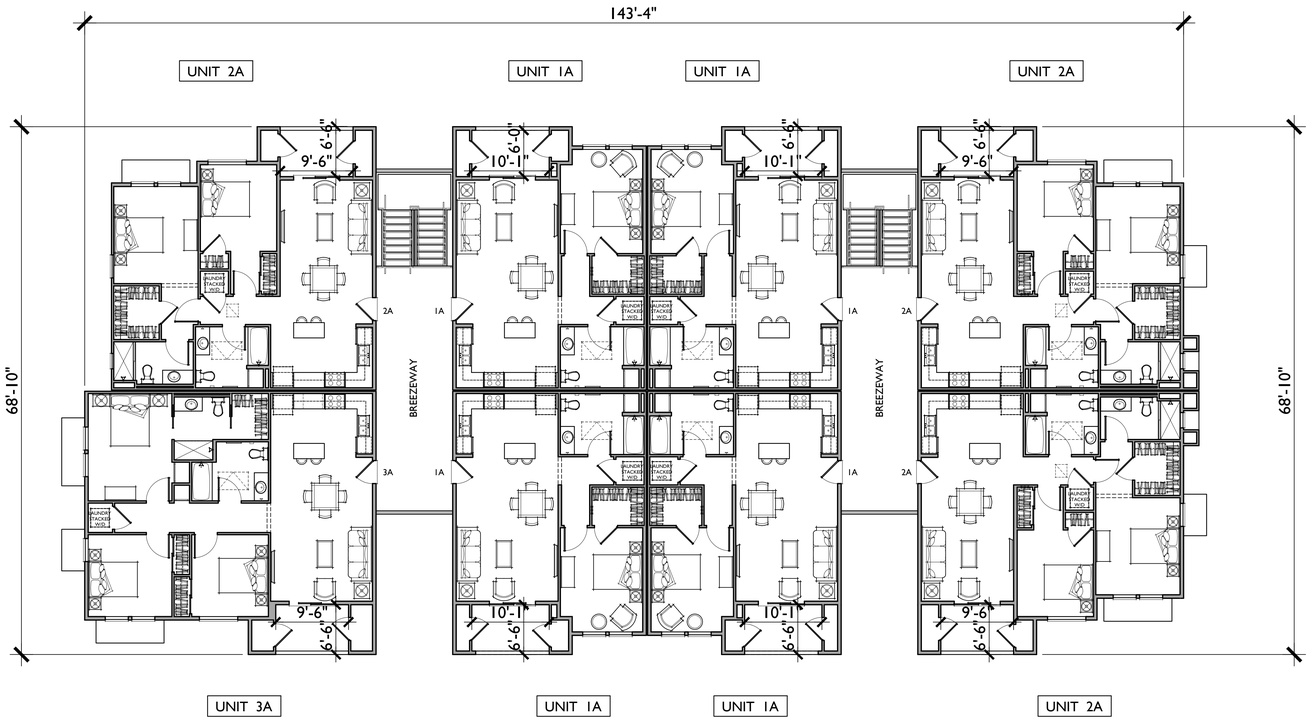
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A2.2

FRONTIER COMMUNITIES



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BUILDING A (24 PLEX)

Third Floor

RIALTO FOOTHILL APARTMENTS

Rialto , California

0 4 8 16

881.21241

11.11.21

A2.3

FRONTIER COMMUNITIES

MATERIAL LEGEND

A. CONCRETE 'S' TILE
B. STUCCO
C. TRIM
D. CORBEL
E. BRICK
F. WROUGHT IRON ACCENT
G. METAL GUARDRAIL



FRONT

A
1/8"=1'-0"



REAR

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BUILDING B (36 PLEX)

Elevations

RIALTO FOOTHILL APARTMENTS

Rialto , California

0 4 8 16

881.21241

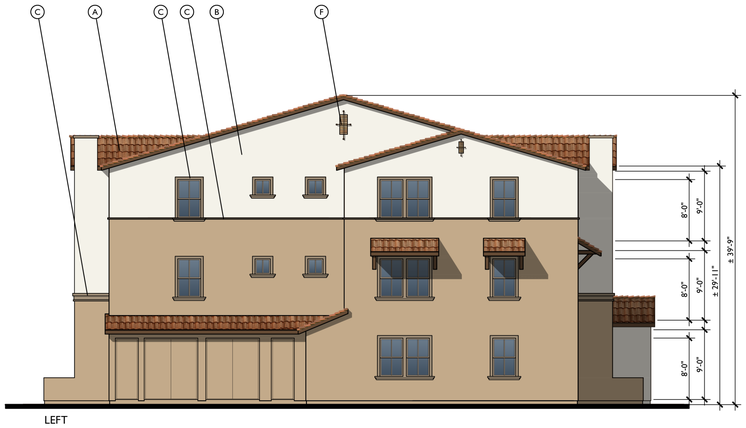
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A3.5

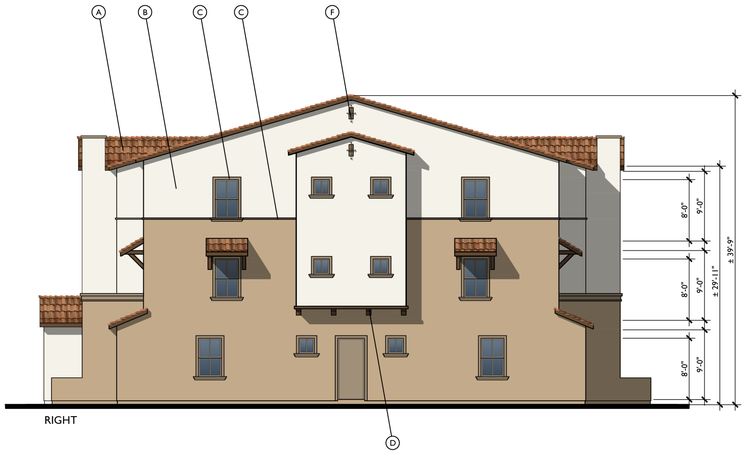
FRONTIER COMMUNITIES

MATERIAL LEGEND

A. CONCRETE 'S' TILE
B. STUCCO
C. TRIM
D. CORBEL
E. BRICK
F. WROUGHT IRON ACCENT
G. METAL GUARDRAIL



LEFT



RIGHT

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BUILDING B (36 PLEX)

Elevations

RIALTO FOOTHILL APARTMENTS

Rialto , California

0 4 8 16

881.21241

11.11.21

A3.6

FRONTIER COMMUNITIES

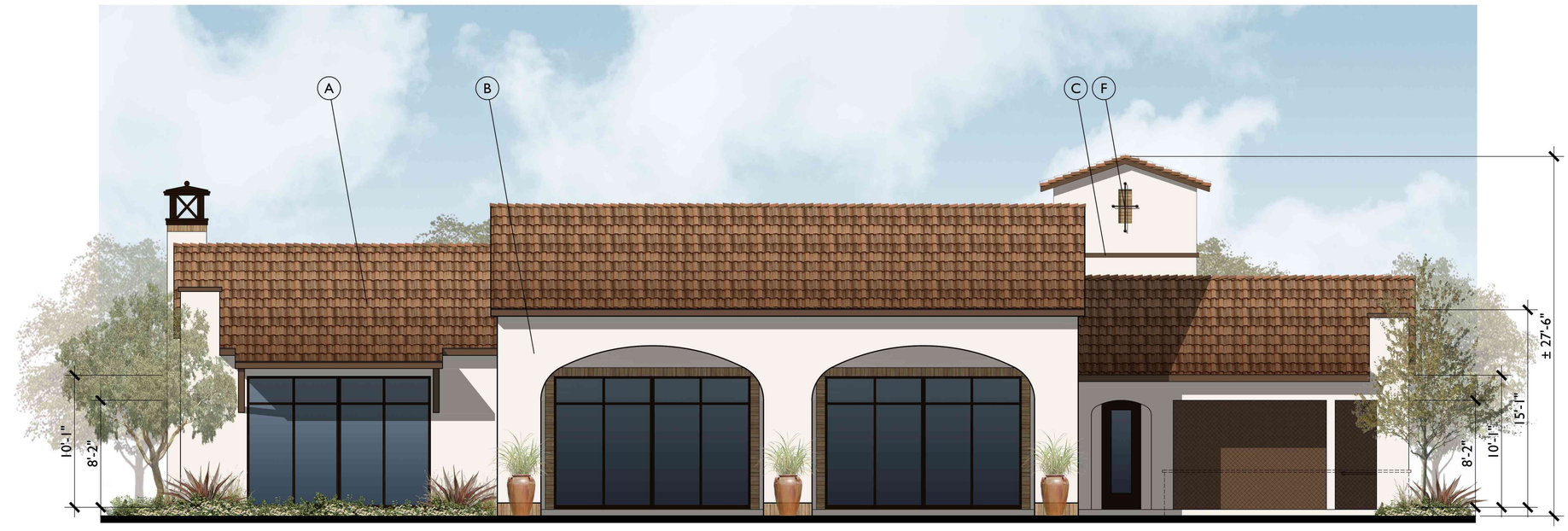
MATERIAL LEGEND

A. CONCRETE 'S' TILE
B. STUCCO
C. TRIM
D. CORBEL
E. BRICK
F. WROUGHT IRON ACCENT
G. METAL GUARDRAIL



FRONT

A
1/4"=1'-0"



REAR

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RECREATION CENTER
Elevations

RIALTO FOOTHILL APARTMENTS
Rialto , California

0 2 4 8

881.21241

11.11.21

A5.3

FRONTIER COMMUNITIES

MATERIAL LEGEND

A. CONCRETE 'S' TILE
B. STUCCO
C. TRIM
D. CORBEL
E. BRICK
F. WROUGHT IRON ACCENT
G. METAL GUARDRAIL



LEFT



RIGHT

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RECREATION CENTER

Elevations

RIALTO FOOTHILL APARTMENTS

Rialto , California

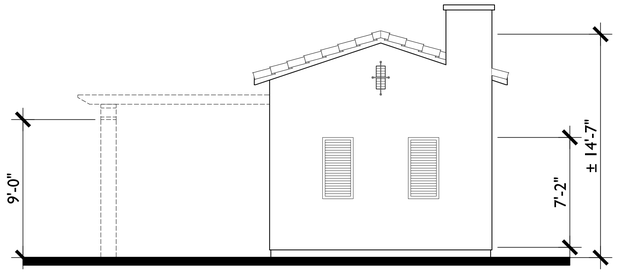
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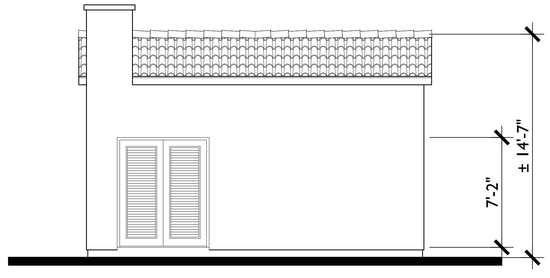
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A5.4

FRONTIER COMMUNITIES

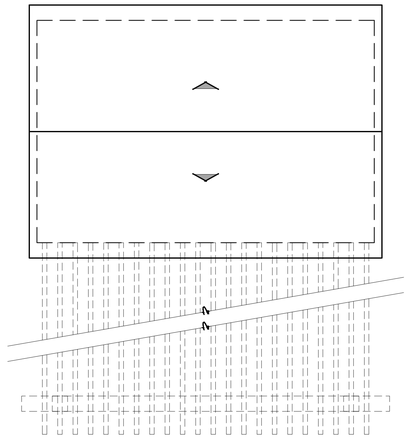


LEFT



FRONT

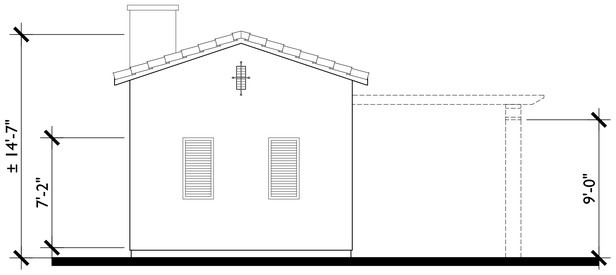
A
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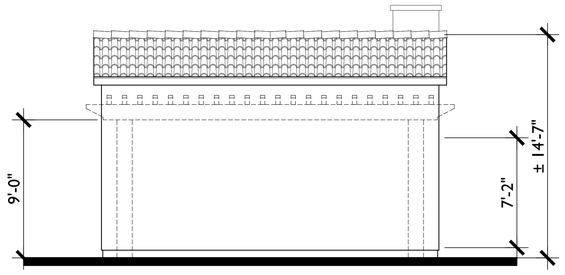
ROOF PLAN

1/4"=1'-0"

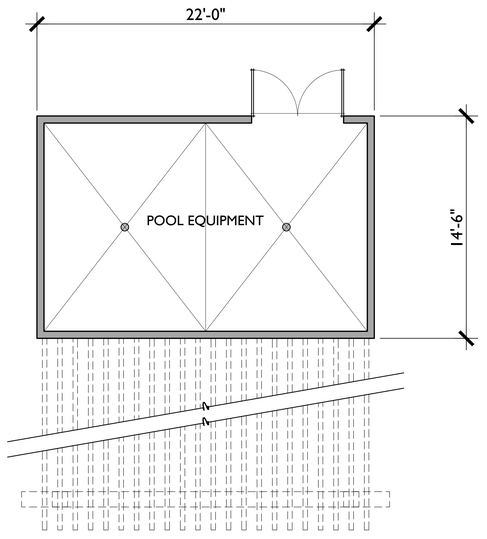
PITCH: 4:12 U.N.O.
RAKE: 6"
EAVE: 12"
ROOF MATERIAL: CONCRETE 'S' TILE



RIGHT



REAR



PLAN

319 SQ. FT.

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POOL EQUIPMENT BUILDING

Floor Plan, Roof Plan, Elevations

RIALTO FOOTHILL APARTMENTS

Rialto , California

0 2 4 8

881.21241

11.11.21

A6.1

FRONTIER COMMUNITIES

LEGEND

(1) Foothill Blvd Parkway Treatment Per "Foothill Blvd Specific Plan"
- Landscape mesh screen
- Paver form tree wells @ 40' o.c.
- Colored concrete parkway throughout

(2) Main Entry
- Decorative unit pavers
- Center directory
- Spanish themed vehicular gates
- Dry fountain in entry plaza

(3) Pool Area
- Large central lap pool
- Decorative concrete sun deck
- Colorful cantilevered umbrellas over synthetic turf
- Spa with tile mural backdrop wall
- Separate yoga lawn outside fitness room

(4) Outdoor Kitchen
- (2) grills w/ concrete countertop
- Table seating
- Wood trellis above

(5) Tot Lot Area
- Rubble surface w/ play equipment for 5–12-year-olds
- Framed by hedges
- Shaded by 4 large canopy trees

(6) Enclosed Dog Park
- Double trap entry gate
- Synthetic turf

(7) Entry / BBQ Nodes (2 locations)
- Enhanced terra cotta tile paving
- Spanish themed pilaster & seat wall
- Pedestal BBQ
- Table seating for 2

(8) Foothill Streetscape
- Enhanced paving @ pedestrian gateway w/ accent trees
- Building entries w/ colored concrete
- Decorative urns frame building entries facing Foothill Blvd.

(9) Decorative "Spanish Theme" urns on 24" Sq. pedestals



TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
TREES			
	Aloe 'Hercules'	Hercules Aloe	15 Gal
	Citrus sinensis	Orange Tree	15 Gal
	Strelitzia nicholai	Giant Bird-of-Paradise	15 Gal
	Acacia smallii	Sweet Acacia	24" Box
	Geijera parviflora	Australian Willow	24" Box
	Magnolia grandiflora 'Little Gem'	Southern Magnolia	24" Box
	Tristania conferta	Brisbane Box	24" Box
	Cercidium hybrid 'Desert Museum'	Hybrid Palo Verde	36" Box
	Chitalpa tashkentensis 'Pink Dawn'	Chitalpa	24" Box
	Cupaniopsis anacardioides	Carrotwood	24" Box
	Cupressus sempervirens	Italian Cypress	24" Box
	Magnolia grandiflora 'D.D. Blanchard'	Southern Magnolia	24" Box
	Olea europaea	Olive	Field Grown 14' x 14'
	Tipuana tipu	Tipu Tree	24" Box
	Designated Street Tree for Foothill		24" Box
PALMS			
	Chamaerops humilis	Mediteranean Fan Palm	24"B
	Phoenix dactylifera	Date Palm	15' - 20' HT.
	Washington robusta	Mexican Fan Palm	15' - 20' HT.

SHRUB LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME
	SHRUBS	
	Agave 'Blue Flame'	Blue Flame Agave
	Agave desmettiana	Dwarf Century Plant
	Agave weberi	Weber's Century Plant
	Aloe arborescens	Tree Aloe
	Bougainvillea 'La Jolla'	Bougainvillea
	Buxus microphylla japonica	Japanese Boxwood
	Carex divulsa	Berkeley Sedge
	Carissa grandiflora 'Green Carpet'	Natal Plum
	Chondropetalum tectorum	Cape Rush
	Citrus Kumquat Hybrid 'Tavares'	Kumquat
	Dianella revoluta 'DR5000'	Little Rev Flax Lily
	Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily
	Ilex crenata 'Sky Pencil'	Sky Pencil Ilex
	Lantana hybrids 'New Gold'	New Gold Lantana
	Ligustrum japonicum 'Texanum'	Wax Leaf Privet
	Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush
	Moraea bicolor	Fortnight Lily
	Muhlenbergia rigens	Deer Grass
	Olea europaea 'Montra' P.P.#6266	Little Ollie Dwarf Olive
	Pennisetum 'Fairy Tails'	Fairy Tails Fountain Grass
	Pittosporum tobira 'Wheeleri'	Wheeler's Dwarf Tobira
	Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood
	Portulacaria afra	Elephant's Food
	Rhaphiolepis indica 'Spring Time'	Indian Hawthorne
	Rosa f. 'Trumpeter'	Trumpeter Rose
	Senecio mandraliscae	Blue Chalk Sticks
	Stipa tenuissima	Mexican Feather Grass
	Strelizia reginae	Bird-of-Paradise
	Yucca recurvifolia	Pendulous Yucca

L1

PRELIMINARY LANDSCAPE PLAN

RIALTO FOOTHILL APARTMENTS

RIALTO, CALIFORNIA

FRONTIER COMMUNITIES
2151 E. Convention Center Way, Suite 114
Ontario, CA 91764

SCALE 1"=30'

SITESCAPES
Landscape Architecture & Planning
3180-B2 Airport Loop Drive
Costa Mesa, CA 92626
Richard Fetherston, License # 2782
(949) 644-9370

JOB# 21-038
DATE: 11-09-2021

Foothill Apartments

TRAFFIC ANALYSIS
CITY OF RIALTO

DRAFT

PREPARED BY:

Aric Evatt, PTP
aevatt@urbanxroads.com

Charlene So, PE
cso@urbanxroads.com

AUGUST 13, 2021

14118-02 TA Report REV

DRAFT

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
APN	Assessor's Parcel Number
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
EAP	Existing Ambient Growth plus Project
EAPC	Existing Ambient Growth plus Project Plus Cumulative
GHG	Greenhouse Gas
HCM	Highway Capacity Manual
HY	Horizon Year
ITE	Institute of Transportation Engineers
LOS	Level of Service
NP	Without Project
OPR	Office of Planning and Research
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Foothill Apartments
RTP	Regional Transportation Plan
SBCTA	San Bernardino County Transportation Authority
SCS	Sustainable Communities Strategy
sf	Square Feet
TA	Traffic Analysis
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WP	With Project

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1 SUMMARY OF FINDINGS

This report presents the results of the traffic analysis (TA) for the proposed Foothill Apartments development ("Project"), which is located at 534 Foothill Boulevard in the City of Rialto. The Project's location in relation to the surrounding area is shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This TA has been prepared in accordance with the City of Rialto's Traffic Impact Analysis Report Guidelines and Requirements, County of San Bernardino Transportation Impact Study Guidelines (dated July 9, 2019), San Bernardino County Congestion Management Program (CMP) Guidelines for CMP Traffic Impact Analysis Reports (Appendix B, 2016 Update), and consultation with City staff during the TA scoping process. (1) (2) (3) The City approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

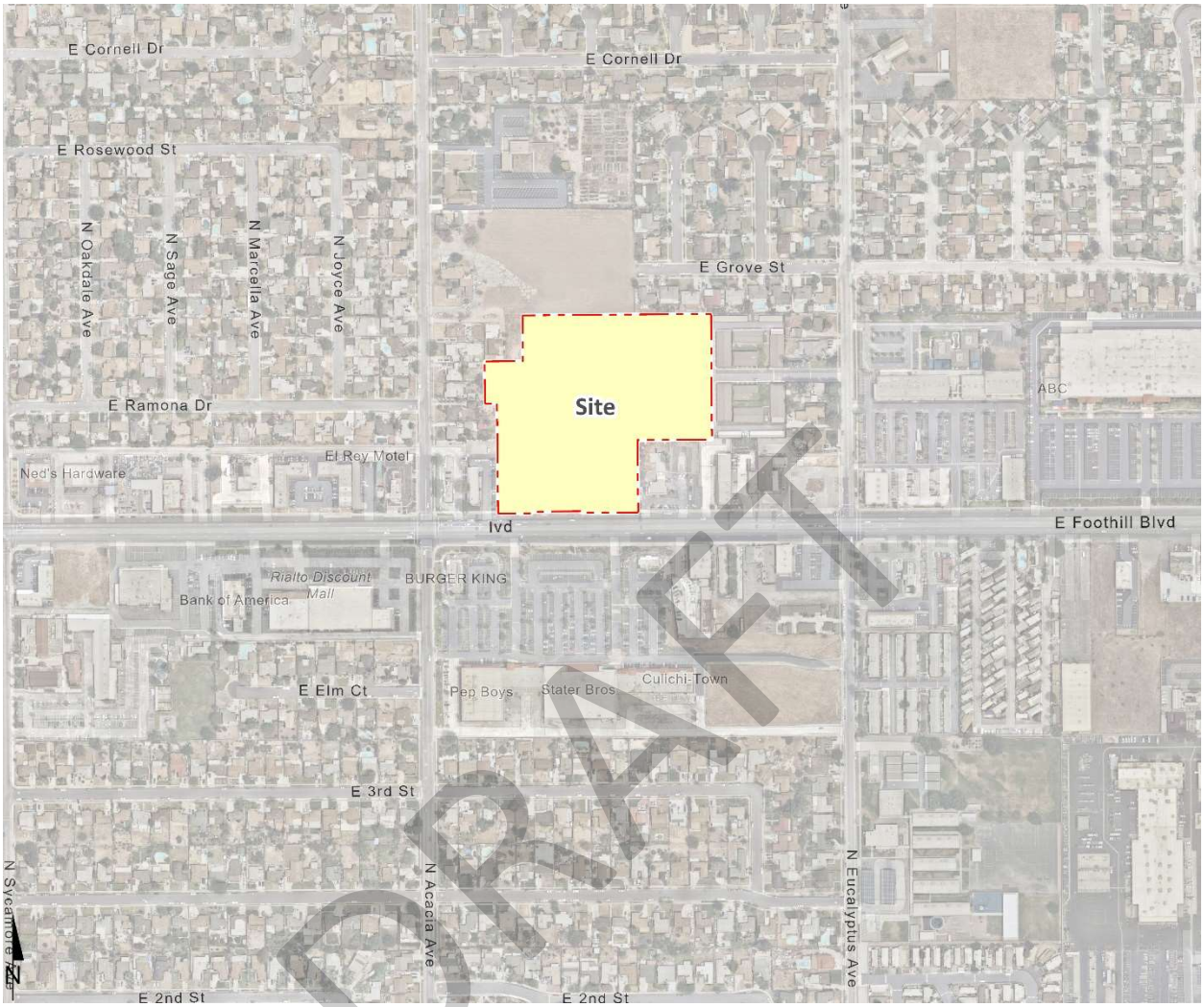
1.1 SUMMARY OF FINDINGS – VEHICLE MILES TRAVELED AND LEVEL OF SERVICE

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt Vehicle Miles Traveled (VMT) as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. It is our understanding that the City of Rialto utilizes the San Bernardino County Transportation Authority (SBCTA) Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment and VMT Screening Tool. The Screening Tool allows users to input an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (Project APNs: 0254+-261-14, 0254-261-17, 0132-201-03, and 0132-181-01). The Project was found to meet the Low VMT area screening criteria. As the City of Rialto is currently developing agency specific VMT guidelines and thresholds, the Project's VMT impact is anticipated to be less than significant based on the current San Bernardino County guidance, however, this may be subject to change once the City adopts its own VMT methodology and thresholds. The VMT analysis is included in Appendix 1.2. The Project is to construct the following improvements as design features in conjunction with development of the site:

- Project to construct Foothill Boulevard (SR-66) at its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western Project boundary to the eastern Project boundary consistent with the City's standards. Project to design Driveway 1 to restrict access to right-in/right-out. Project will have full access at Driveway 2.

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EXHIBIT 1-1: LOCATION MAP



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Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report.

The development of the proposed Project is not anticipated to require the construction of any off-site improvements, however, there are improvement needs identified at off-site intersections for future traffic analysis scenarios where the Project would contribute traffic (as measured by 50 or more peak hour trips). As such, the Project Applicant's responsibility for the Project's contributions towards off-site intersection deficiencies is fulfilled through payment of fair share or participation in the pre-existing fee programs that would be assigned to construction of the identified recommended improvements. The Project Applicant would be required to pay requisite fair share contributions and fee payments consistent with the City's requirements (see Section 8 *Local and Regional Funding Mechanisms*).

1.2 PROJECT OVERVIEW

Exhibit 1-2 illustrates the preliminary Project site plan. The Project is proposed to consist of 204 multifamily mid-rise (3-10 floor) residential dwelling units. It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2024. For the purpose of this analysis, the following driveways will be assumed to provide access to the Project site:

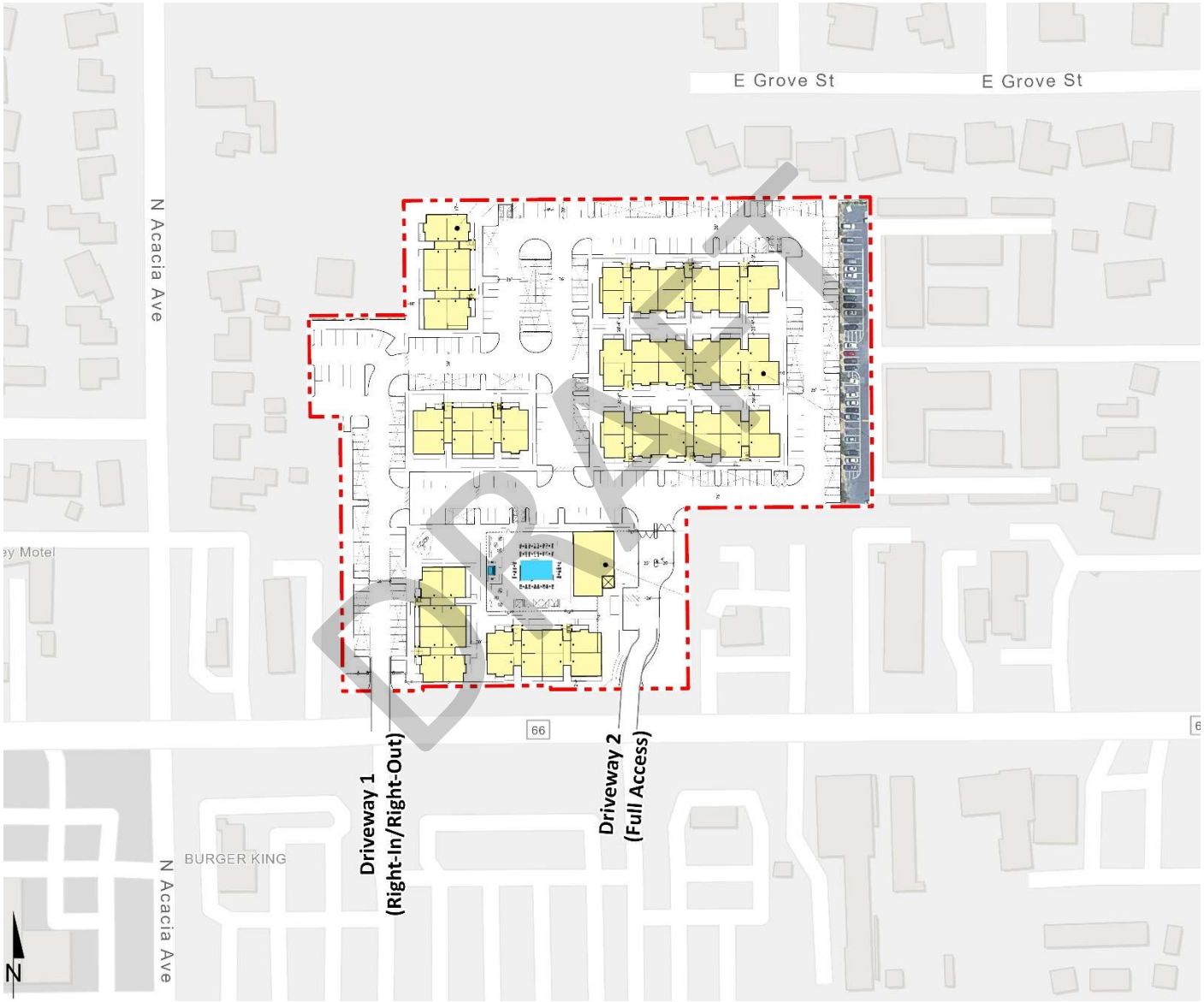
- Driveway 1 on Foothill Boulevard – Right-in/Right-out Only Access; note this future driveway is for resident access only (entry/exit)
- Driveway 2 on Foothill Boulevard Avenue – Full Access (aligns with existing driveway to the south)

The trip generation rate and vehicle and truck mix are sourced from the City of Rialto's Public Works Department's Traffic Impact Analysis Report Guidelines and Requirements (2013). In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012) for Warehousing (ITE Land Use Code 150) were used. (4) Passenger car equivalent (PCE) factors were applied to the trip generation rates to convert trips made by heavy trucks (2-axle, 3-axle, and 4+-axle trucks) to PCE values.

The proposed Project is anticipated to generate 1,110 two-way vehicle trips per day, with 73 AM peak hour trips and 90 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.

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EXHIBIT 1-2: PRELIMINARY SITE PLAN



1.3 ANALYSIS SCENARIOS

For the purposes of this TA, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2021)
- Existing plus Ambient Growth plus Project (EAP) (2024)
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024)

1.3.1 EXISTING (2021) CONDITIONS

Information for Existing (2021) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EAP (2024) CONDITIONS

The Existing plus Ambient Growth plus Project (EAP) conditions analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic. To account for background traffic growth, an ambient growth factor from Existing conditions of 2% per year, compounded annually, for a total of 6.12% is included for EAP (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area within the City of Rialto.

1.3.3 EAPC (2024) CONDITIONS

The Existing plus Ambient Growth plus Project plus Cumulative (EAPC) 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 2% per year, compounded annually, for a total of 6.12% is included for EAPC (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area. This comprehensive list was compiled from information provided by the City of Rialto and other near-by agencies.

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1.4 STUDY AREA

To ensure that this TA satisfies the City of Rialto's requirements, Urban Crossroads, Inc. prepared a TA 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 and is provided in Appendix 1.1.

The following 4 study area intersections shown on Exhibit 1-2 and listed on Table 1-1 were selected for this TA based on consultation with City of Rialto staff. The "50 peak hour trip" criterion generally represents a minimum number of trips at which a typical intersection would have the potential to be affected 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 influence (i.e., study area).

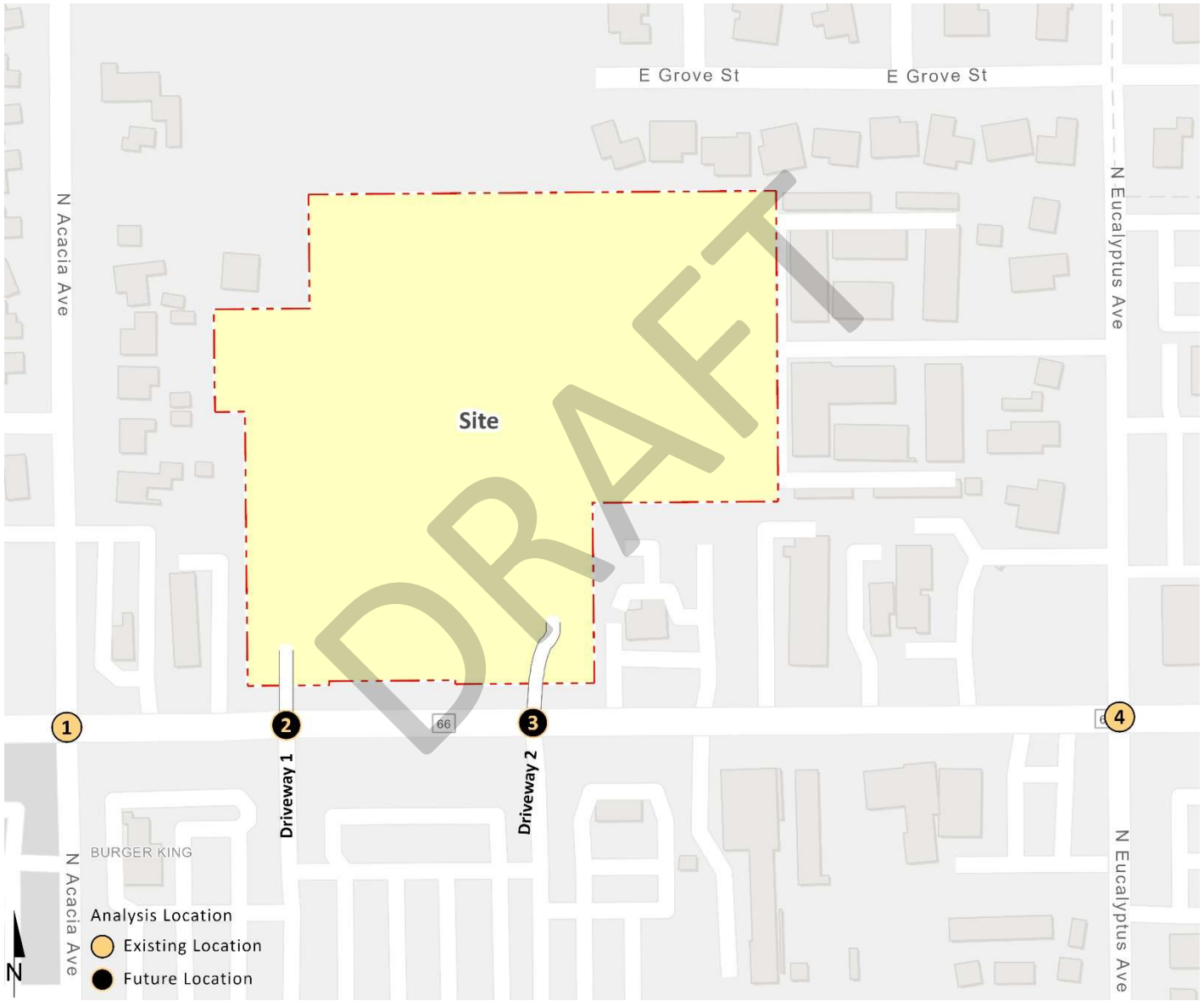
TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection	Jurisdiction	CMP?
1	Acacia Avenue & Foothill Boulevard	Rialto	No
2	Driveway 1 & Foothill Boulevard – Future Intersection	Rialto	No
3	Driveway 2 & Foothill Boulevard	Rialto	No
4	Eucalyptus Avenue & Foothill Boulevard	Rialto	No

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP legislation. There are no study area intersections that are identified as CMP facilities per the SBCTA CMP (see Table 1-1). (3)

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EXHIBIT 1-3: STUDY AREA



1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *EAP (2024) Traffic Conditions*, Section 6 *EAPC (2024) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-3.

TABLE 1-3: SUMMARY OF INTERSECTION LEVEL OF SERVICE BY ANALYSIS SCENARIO

#	Intersection	Existing (2021) AM	Existing (2021) PM	EAP (2024) AM	EAP (2024) PM	EAPC (2024) AM	EAPC (2024) PM
1	Acacia Ave. & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D
2	Driveway 1 & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D
3	Driveway 2 & Foothill Blvd.	A - D	A - D	E	E	E	E
4	Eucalyptus Ave. & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D

A - D = A - D E = E F = F

1.5.1 EXISTING (2021) CONDITIONS

The study area intersections all currently operate at an acceptable LOS during peak hours under Existing (2021) traffic conditions.

1.5.2 EAP (2024) CONDITIONS

The following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

1.5.3 EAPC (2024) CONDITIONS

The following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

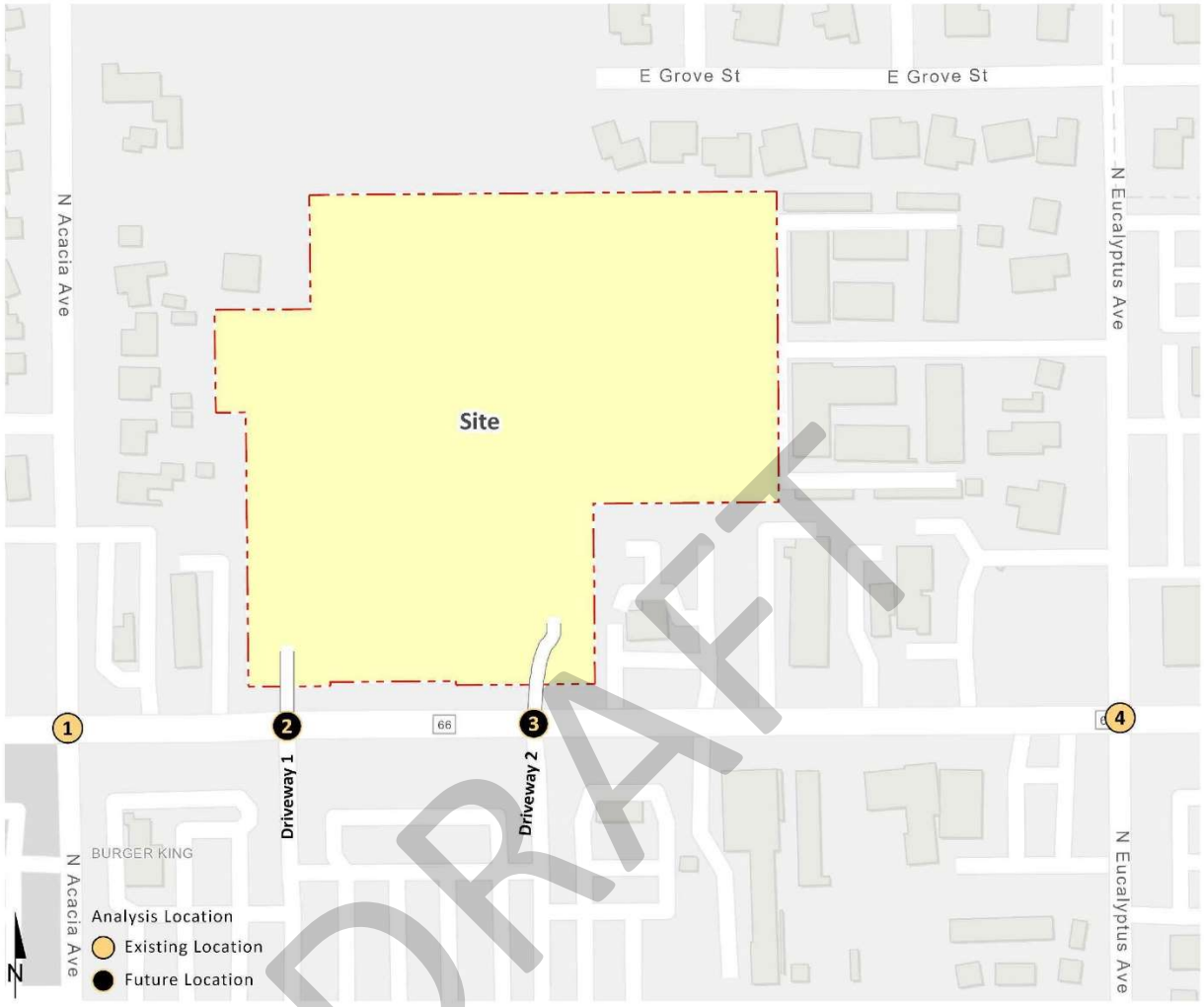
1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

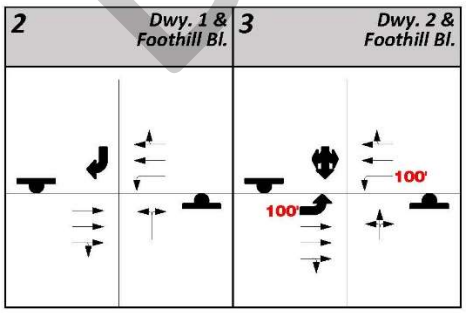
The following recommendations are based on the improvements needed to accommodate site access. The site adjacent recommendations are shown on Exhibit 1-4. Queuing analysis results for the Project driveways is provided in Appendix 1.3.

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EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



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= Stop Sign
= Stop Sign Improvement
= Existing Lane
= Lane Improvement
100' = Recommended Turn Pocket Length

Recommendation 1 – Driveway 1 & Foothill Boulevard (#2) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign on the southbound approach and construct a southbound right turn lane. Driveway to be designed to restrict access to right-in/right-out only.

Recommendation 2 – ***Driveway 2 & Foothill Boulevard (#2)*** – The following improvements are necessary to accommodate site access:

- Project to install a stop sign on the southbound approach and construct a shared left-through-right turn lane. Driveway aligns with an existing driveway on the south side of Foothill Boulevard and will allow for full access.

Recommendation 3 – Foothill Boulevard is an east-west oriented roadway located on the Project's southern boundary. Project to construct Foothill Boulevard at its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western Project boundary to the eastern Project boundary consistent with the City's standards.

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Rialto's 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 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (5) 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. (5) 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 on Table 2-1. Consistent with City of Rialto traffic study guidelines, a saturation flow rates of 1900 in vehicles per hour green per lane (vphgpl) has been utilized in the traffic analysis for signalized intersections:

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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
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 (6th Edition)

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The traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to analyze signalized intersections within the City of Rialto. 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. (5)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Rialto requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (5) 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 (6th Edition)

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. For two-way stop-controlled intersections, the delay is reported for the worst single movement/lane (typically occurs on the side street).

2.3 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 TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (6)

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. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (6) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 is appropriate to use for this TA 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.

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Future intersections that do not currently 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.

Traffic signal warrant analyses were performed for the following study area intersection shown on Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection	Jurisdiction
3	Driveway 2 & Foothill Bl.	Rialto

Although unsignalized, the future intersection of Driveway 1 & Foothill Boulevard is anticipated to have restricted access (right-in/right-out only). As such, traffic signal warrants have not been evaluated for this intersection. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. 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.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The following LOS will be utilized for study area intersections located within the City: 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.

The City's Traffic Study Guidelines identifies LOS D as the minimum LOS for intersections and roadway segments, with the exception of Riverside Drive south of the Metrolink tracks to the City's southern border, which can operate at LOS E.

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2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. This section outlines the methodology used in this analysis related to identifying circulation system deficiencies at intersections within the City of Rialto. Consistent with the City's traffic study guidelines, new development is required to improve traffic deficiencies exceeding these levels.

Deficiencies 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

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Rialto General Plan Circulation Network, and a review of existing peak hour intersection 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 7 existing and future intersections as shown previously on Exhibit 1-3. 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

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.

Major Arterials can accommodate six travel lanes and an 18-foot raised median within a 120-foot right-of-way. These facilities are intended to carry large volumes of relatively high-speed traffic between the region to different parts of the City. An example of a Major Arterial within the study area includes:

- Foothill Boulevard

Collectors can accommodate two travel lanes with 8-foot shoulders for parking on either side within a 64-foot right-of-way. Examples of collectors within the study area include:

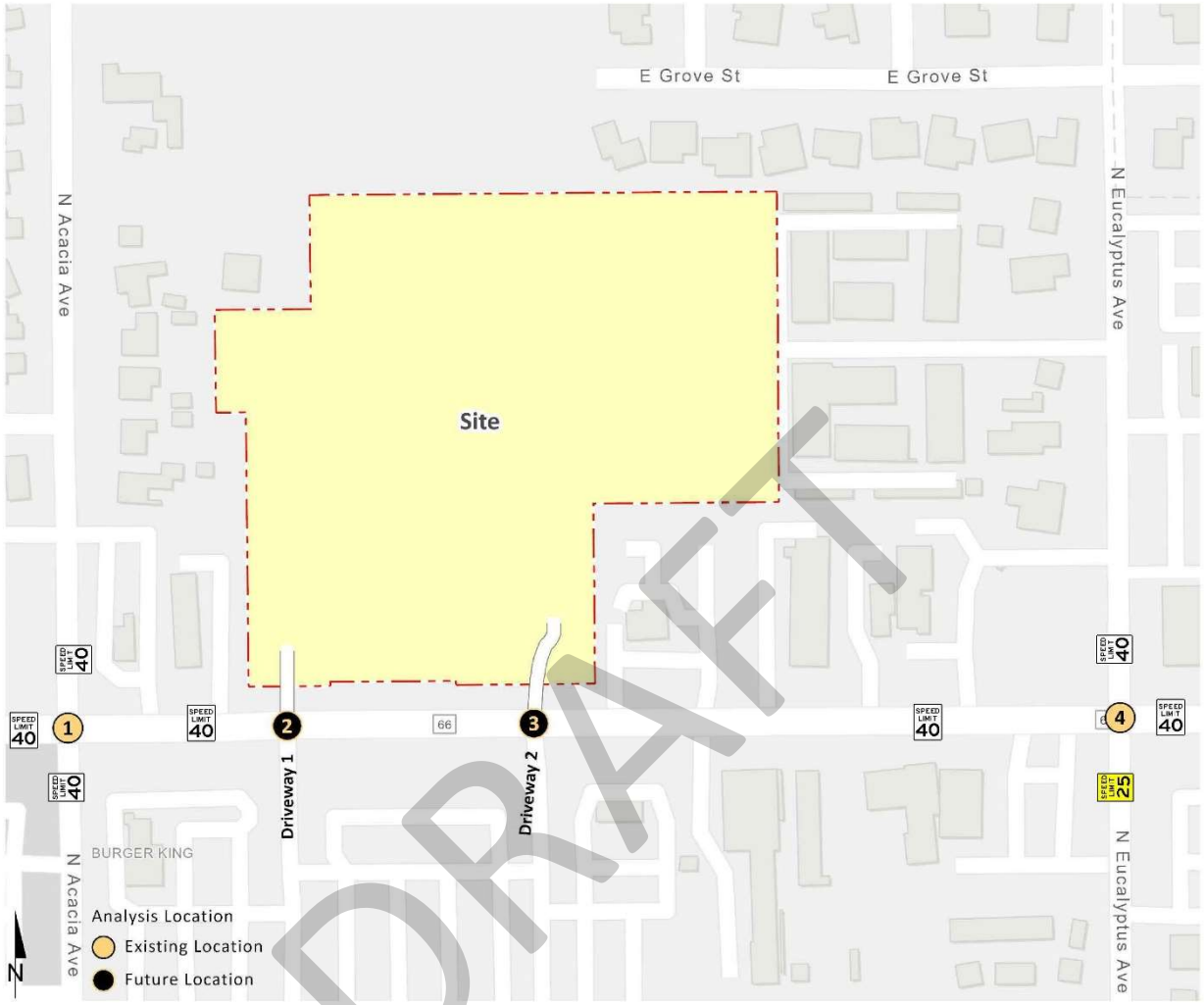
- Acacia Avenue
- Eucalyptus Avenue

3.3 TRANSIT SERVICE

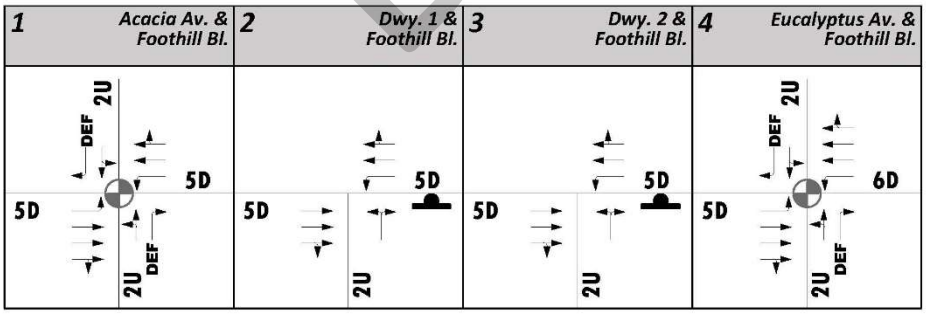
The study area is currently served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County, with bus service along Foothill Boulevard. The existing transit routes within the study area are shown on Exhibit 3-4. Omnitrans Route 14 currently runs along Foothill Boulevard with existing stops at Acacia Avenue and Eucalyptus Avenue. It is likely that the existing transit line could serve 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.

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EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



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= Traffic Signal
= Stop Sign
4 = Number of Lanes
D = Divided
U = Undivided
DEF = Defacto Right Turn
= Speed Limit (MPH)
= School Speed Limit (MPH)

EXHIBIT 3-2: CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

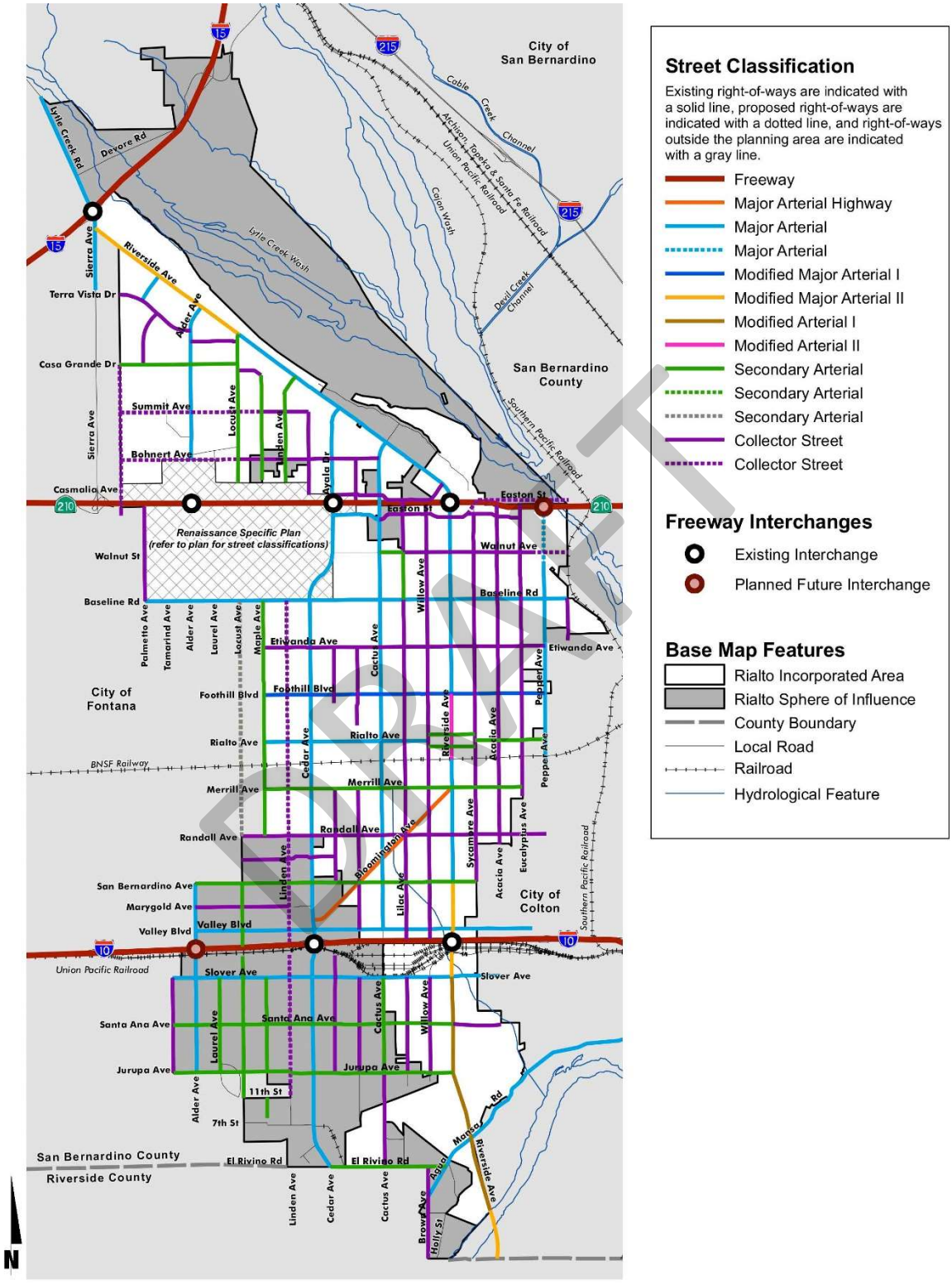
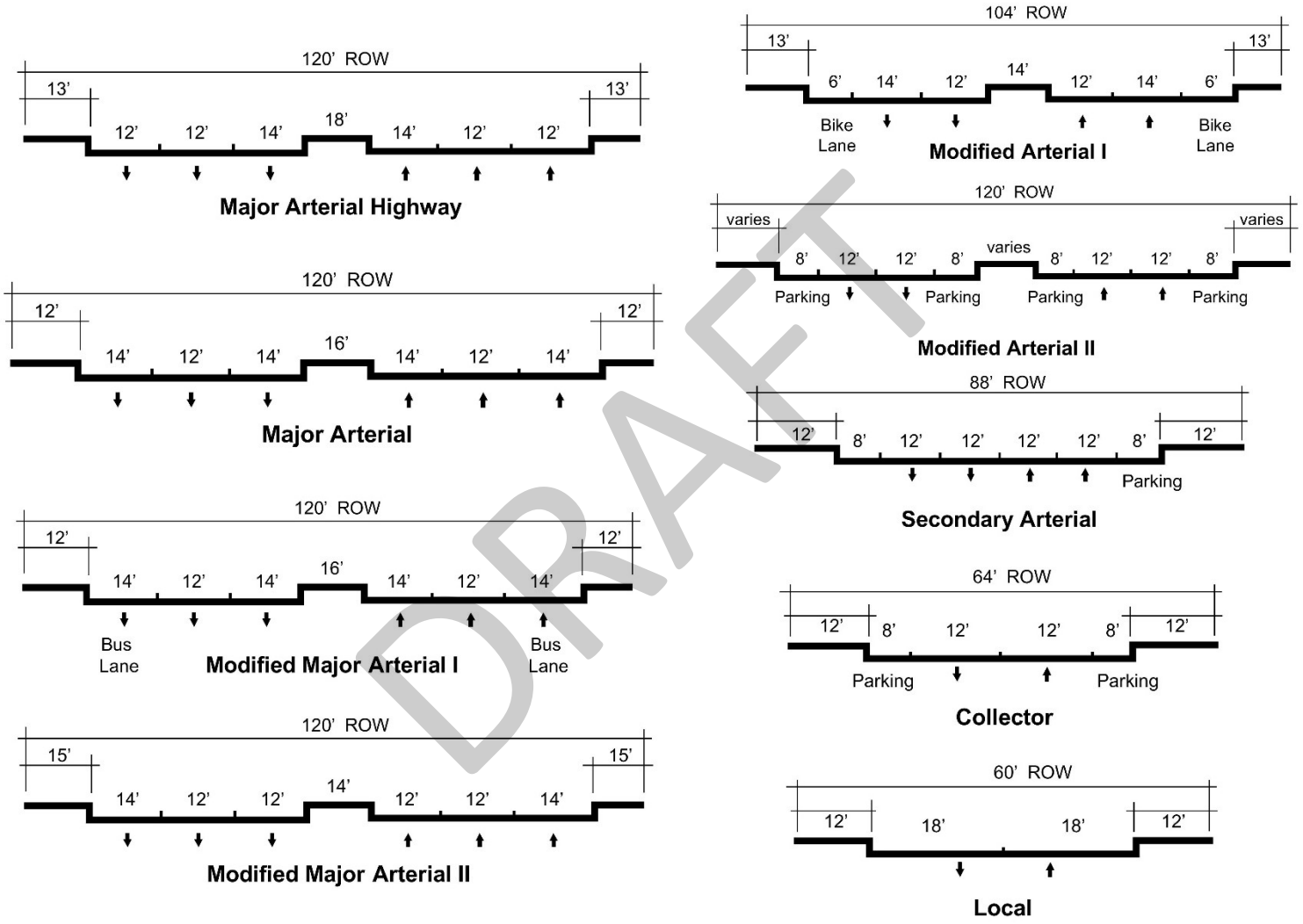
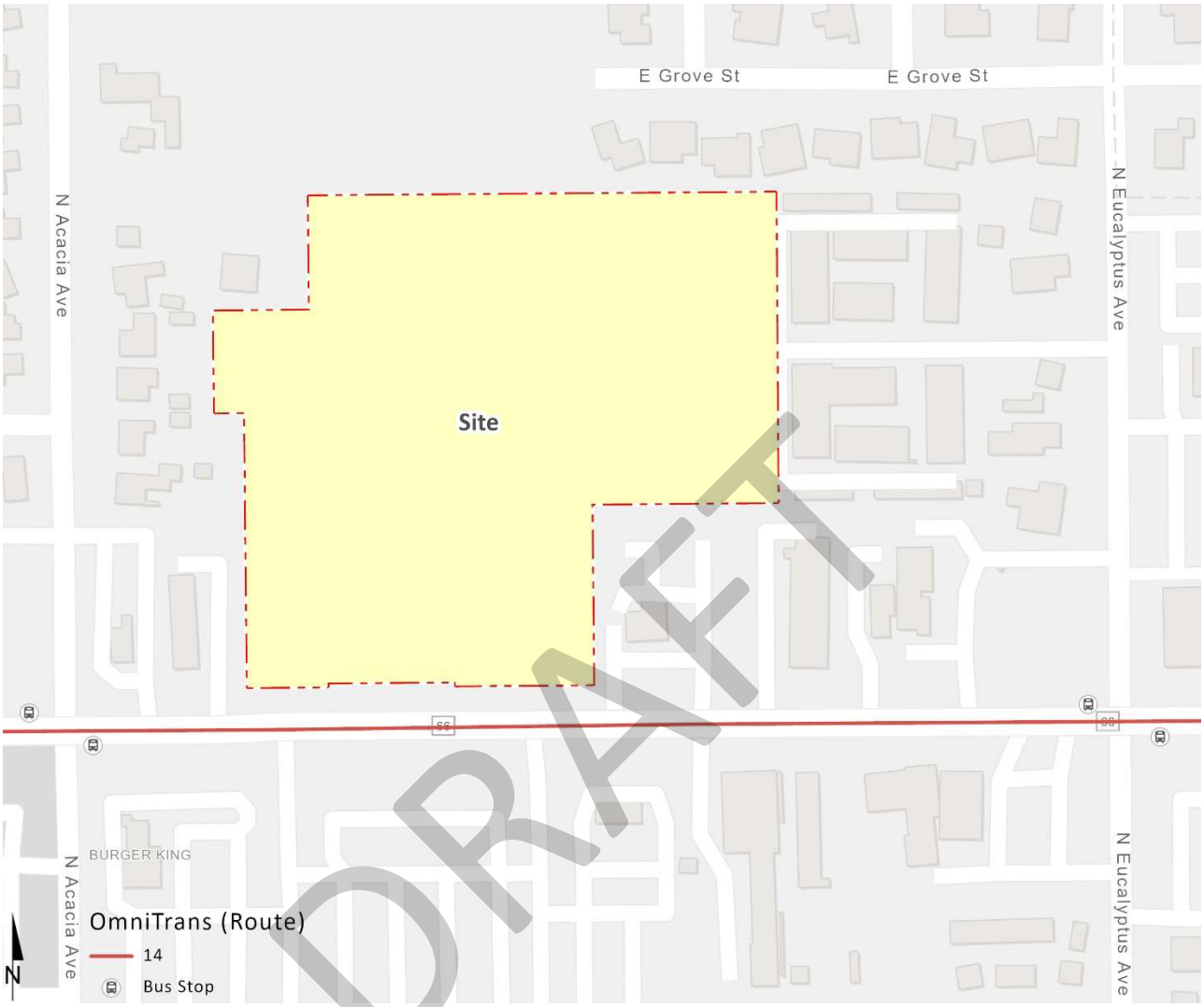


EXHIBIT 3-3: CITY OF RIALTO ROADWAY CROSS-SECTIONS



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EXHIBIT 3-4: EXISTING TRANSIT ROUTES



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3.4 BICYCLE & PEDESTRIAN FACILITIES

The City of Rialto's bicycle facilities are shown on Exhibit 3-5. The only existing bike trail is the Pacific Electric Trail which is located south of Foothill Boulevard. Field observations indicate nominal pedestrian and bicycle activity within the study area. As shown on Exhibit 3-6, pedestrian facilities are built out along Foothill Boulevard with the exception of the Project's frontage.

3.5 EXISTING (2021) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in 2015. The following peak hours were selected for analysis:

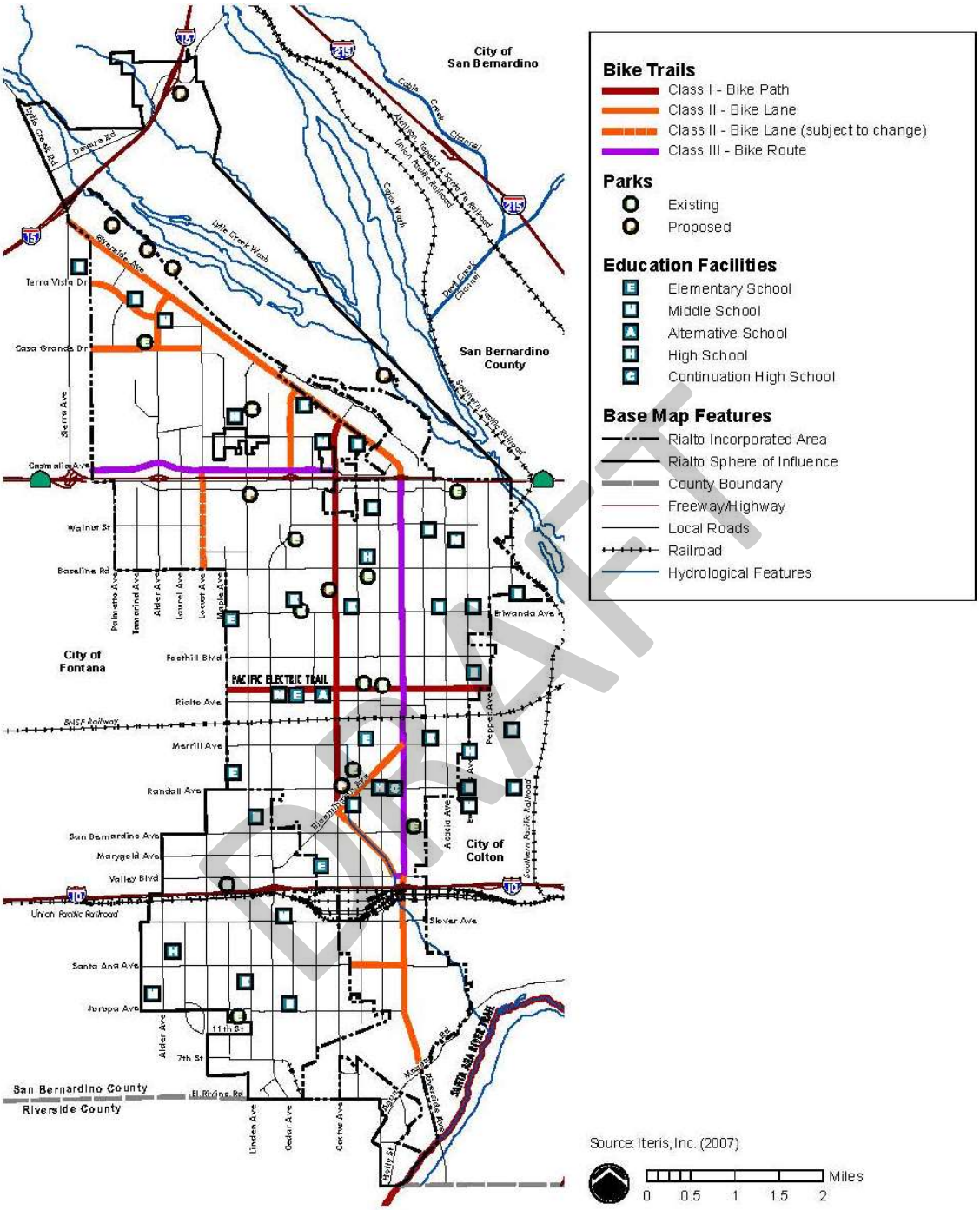
- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Due to the currently ongoing COVID-19 pandemic, schools and businesses within the study area were closed or operating at less than full capacity at the time this study was prepared. As such, historic 2015 traffic counts were utilized in conjunction with a 2% per year growth rate (compounded annually) to reflect 2021 conditions. The 2015 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 traffic counts include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. To represent the effects large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCE. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the CMP and the City's Traffic Study Guidelines.

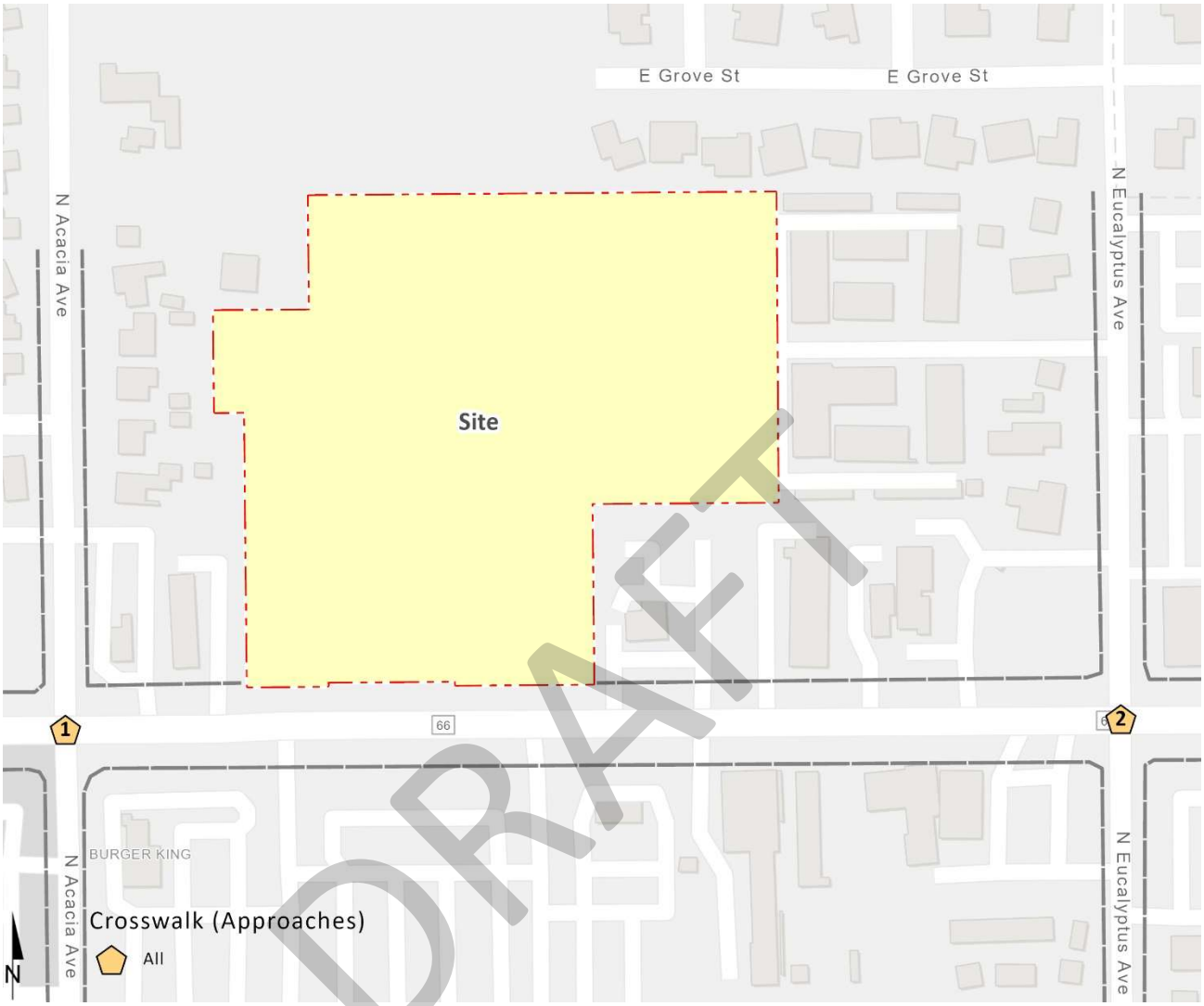
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EXHIBIT 3-5: CITY OF RIALTO BICYCLE FACILITIES



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EXHIBIT 3-6: EXISTING PEDESTRIAN FACILITIES



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Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were 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 13.22 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.57 percent. As such, the above equation utilizing a factor of 13.22 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.57 percent (i.e., 1/0.0757 = 13.22) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are shown on Exhibit 3-7. Note volumes shown are in actual vehicles. The PCE volumes used for the peak hour operations analyses can be found in the applicable appendix with the intersection operations analysis worksheets.

3.6 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 on Table 3-1, which indicates all existing study area intersections are currently operating at an acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2021) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	16.1	15.0	A	B
2	Driveway 1 & Foothill Blvd.	CSS	Future Intersection			
3	Driveway 2 & Foothill Blvd.	CSS	18.3	26.2	C	D
4	Eucalyptus Ave. & Foothill Blvd.	TS	12.8	13.4	B	B

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

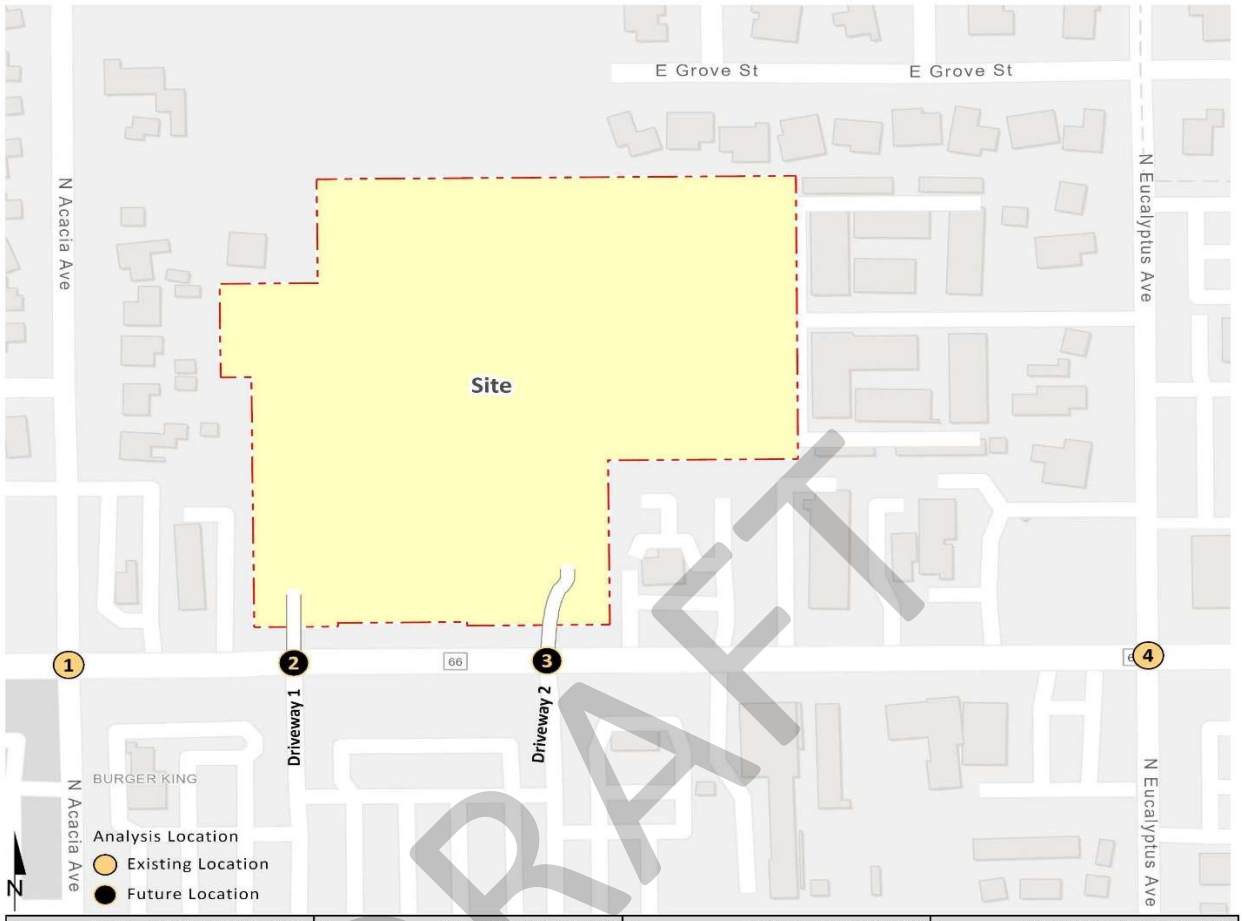
[2] CSS = Cross-street Stop; TS = Traffic Signal

3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

The intersection of Driveway 2 & Foothill Boulevard currently meets a peak hour volume-based traffic signal warrant based on the existing volumes for the shopping center to the south (see Appendix 3.3).

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EXHIBIT 3-7: EXISTING (2021) TRAFFIC VOLUMES



1 Acacia Ave & Foothill Blvd.

5,350 — 28,600

85(59) 97(135) 53(60) ← 34(41) ← 1009(999) ← 36(37)

46(66) → 935(1034) → 56(97) →

63(90) 82(115) 56(52)

29,600 — 5,150

2 Driveway 1 & Foothill Blvd.

27,000

← 1043(1080)

956(1273) →

27,000

3 Driveway 2 & Foothill Blvd.

Nominal — 27,850

← 2(1) ← 1029(1065) ← 43(83)

939(1234) → 17(39) →

14(14) 46(76)

27,000 — 1,650

4 Eucalyptus Ave & Foothill Blvd.

5,900 — 20,950

95(109) 88(97) 48(30) ← 47(45) ← 586(940) ← 48(42)

50(99) → 700(1027) → 59(59) →

59(66) 108(122) 92(65)

21,200 — 6,150

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

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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 204 multifamily (mid-rise, 3-10 floor) residential dwelling units. It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2024. Access to the Project site will be provided to Foothill Boulevard via two proposed driveways.

4.1 PROJECT TRIP GENERATION

4.1.1 PROPOSED PROJECT

The trip generation rates are sourced from the ITE Trip Generation Manual (10th Edition, 2017) for the Multifamily (Mid-Rise, 3-10 Floor) Residential (ITE Land Use Code 221) land use. (4) Table 4-1 presents the trip generation rates. The resulting trip generation summary for the proposed Project are shown on Table 4-2. As shown in Table 4-2, the Project is anticipated to generate a total of 1,110 trip-ends per day with 73 AM peak hour trips and 90 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Trip Generation Rates:									
Multifamily Housing (Mid-Rise) (3-10 floors)	221	DU	0.09	0.27	0.36	0.27	0.17	0.44	5.44

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] DU = Dwelling Units

TABLE 4-2: PROJECT TRIP GENERATION SUMMARY

Project	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Project Trip Generation Summary:									
Rialto 8-Acre Residential	204	DU	19	54	73	55	35	90	1,110

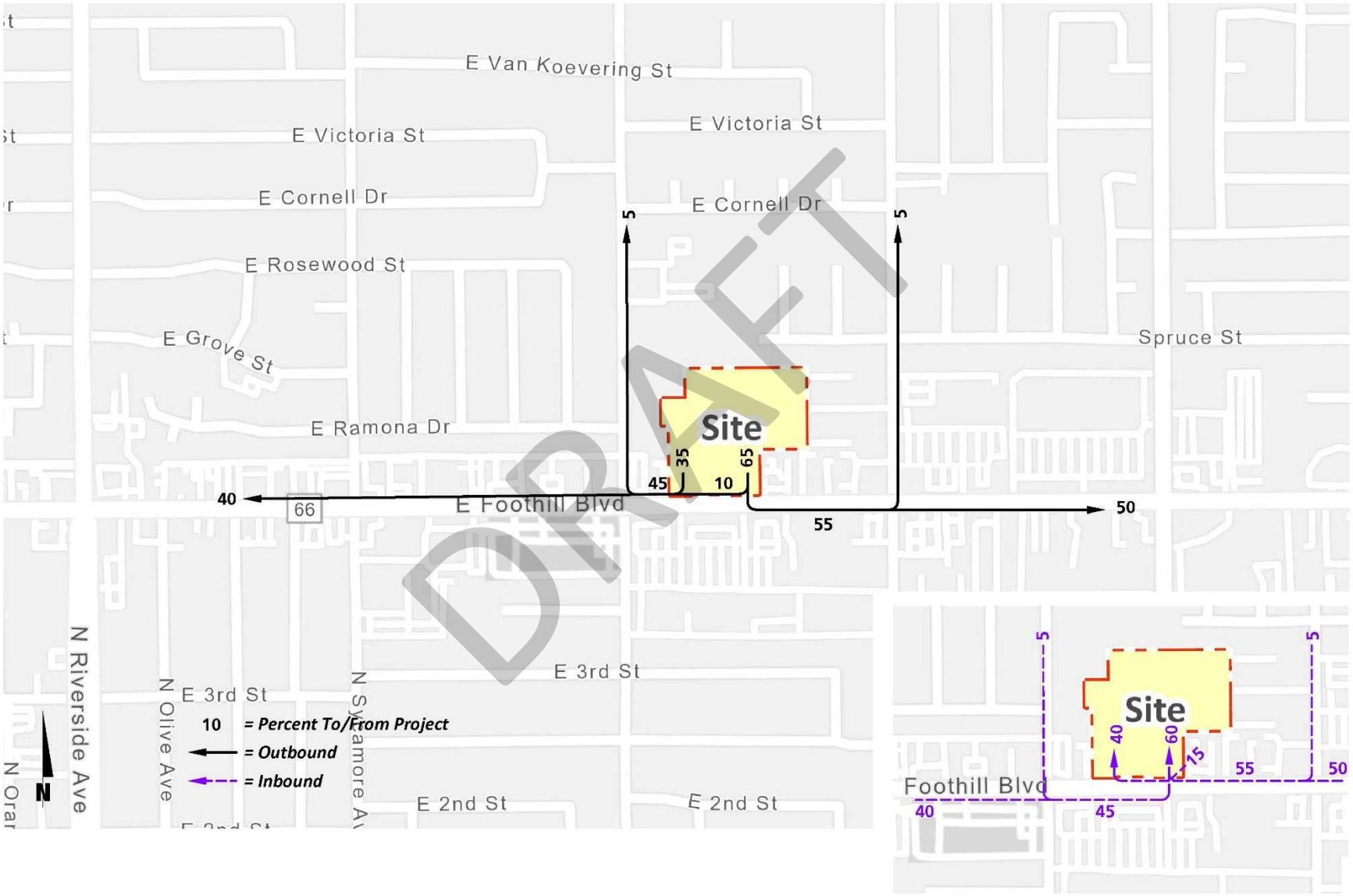
[1] DU = Dwelling Units

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. Distribution patterns are based on existing and planned land uses in the area along with the planned circulation system. Exhibit 4-1 illustrates the trip distribution patterns for the Project.

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EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION



4.3 MODAL SPLIT

The potential for Project trips 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 (non-truck trips only).

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 Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

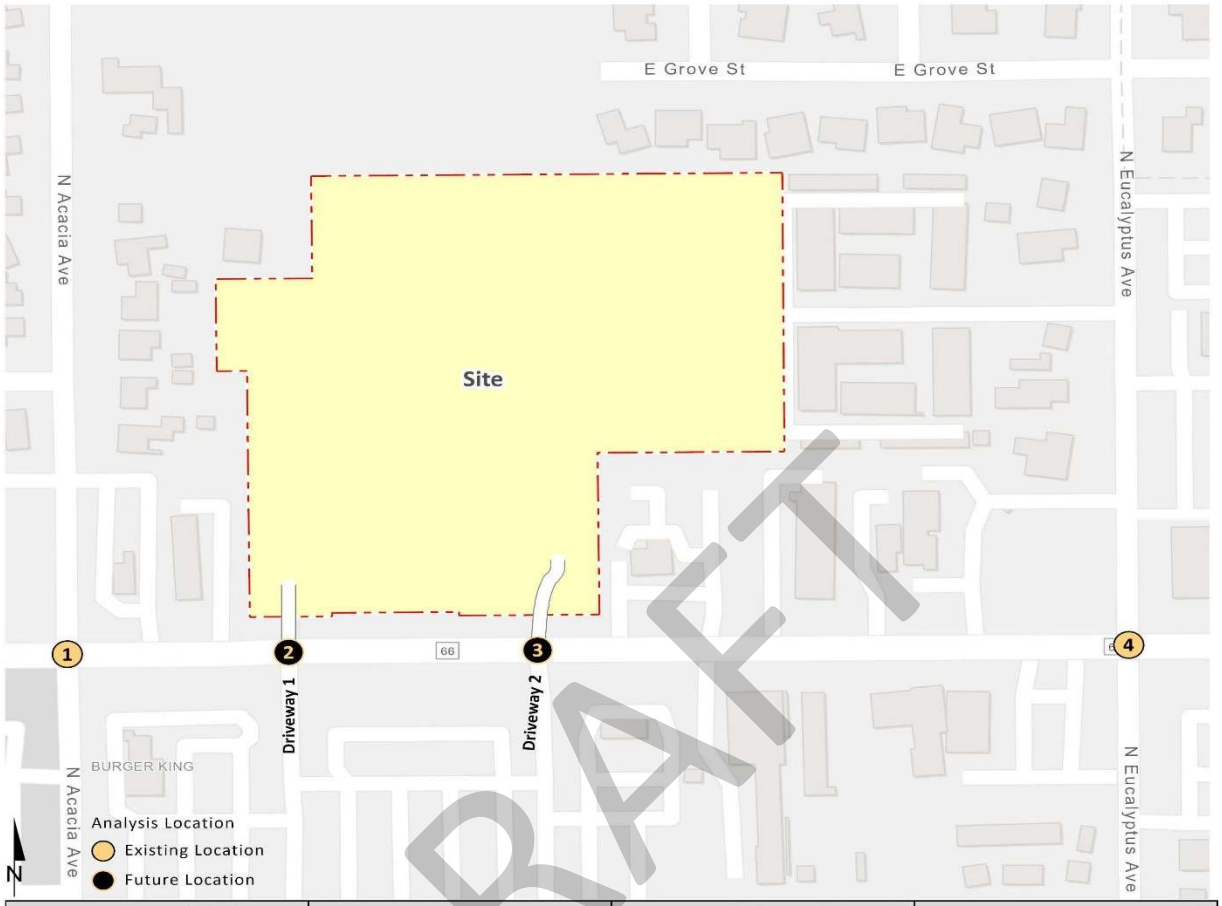
Future year traffic forecasts have been based upon background (ambient) growth at 2.0% per year. The total ambient growth is 2.0% for 2024 traffic conditions (growth over 2 years). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing 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. The traffic generated by the proposed Project is manually added to the base volume to determine EAP/EAPC forecasts.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAP (2024)
    - Adjusted Existing 2021 volumes
    - Ambient growth traffic (6.12%)
    - Project Traffic
- EAPC (2024)
    - Adjusted Existing 2021 volumes
    - Ambient growth traffic (6.12%)
    - Cumulative Development traffic
    - Project Traffic

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EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
Nominal *500*	*400* *550*	*700* *600*	*Nominal* *550*
↰ 3(2) ← 22(14) ↳ 1(3) 8(22) →	↰ 8(22) ← 5(4) ↳ 19(12) 9(25) →	↱ 3(8) ← 8(22) ↳ 5(4) ↳ 30(19) 9(25) →	← 10(28) ↳ 1(3) 3(2) → 27(18) →
450	*500*	*550*	*600*

##(##) AM(PM) Peak Hour Intersection Volumes

***Average Daily Trips***

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4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. Cumulative projects from the neighboring jurisdictions of City of Fontana and County of San Bernardino have also been included. 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 the EAPC (2024) forecasts to ensure that traffic generated by the listed cumulative development projects on Table 4-3 is reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth identified in Section 4.5 *Background Traffic*. Cumulative ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-4 for near-term traffic conditions.

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Project Name	Land Use[1]	Quantity	Units[1]
R1	70 Townhomes	Townhomes	70	DU
R2	Tract 20199	Single Family Residential	56	DU
R3	Spruce Avenue Commerce Center	Warehouse	86.000	TSF
SB1	CUP 20-07, PCN 20-01 & VAR 20-03	Gas Station	8	VFP
		Convenience Store	2.230	TSF
SB2	Rancho and Rialto Truck Yard	Truck and Trailer Parking	14.48	AC

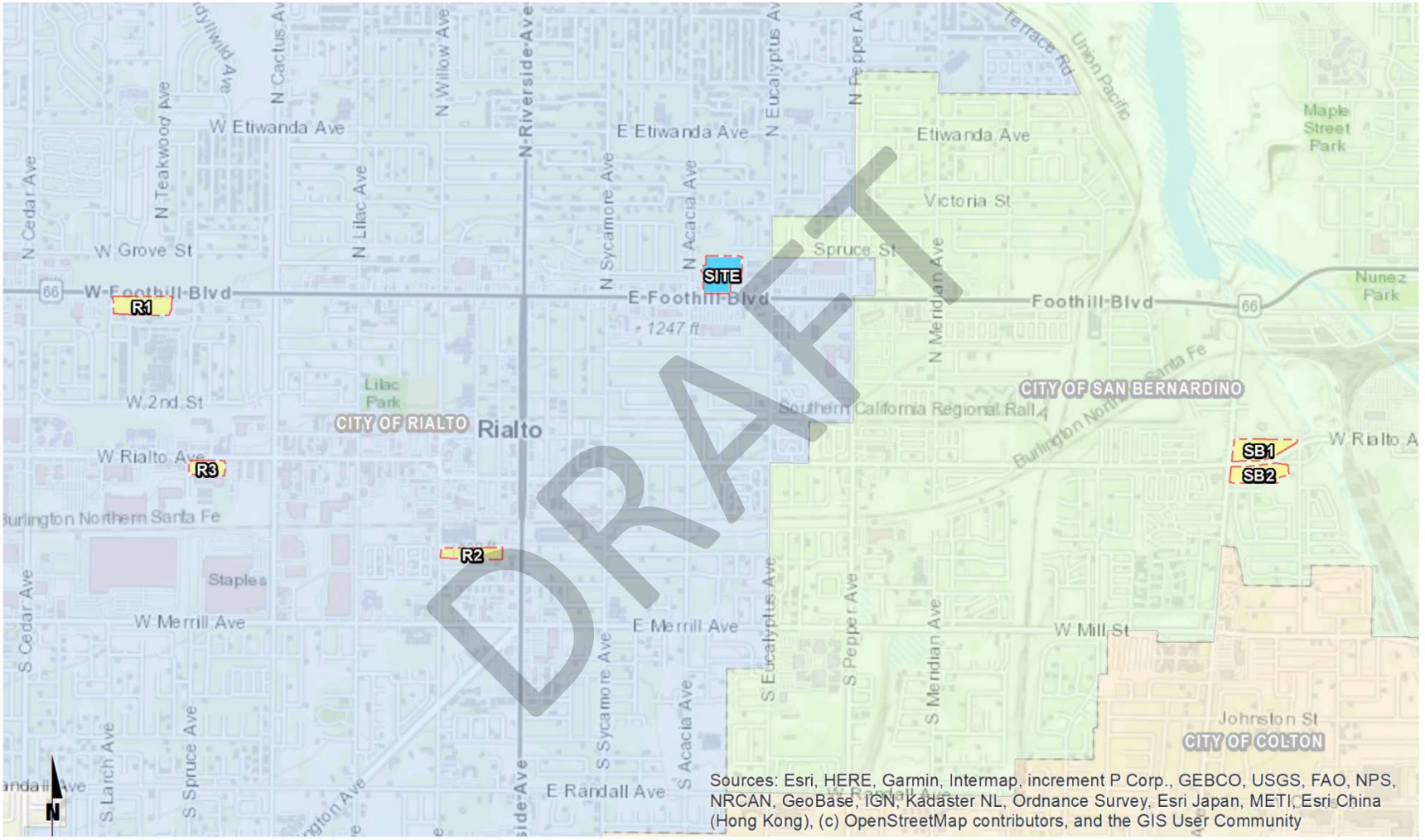
[1] DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions; AC = Acres

4.7 NEAR-TERM CONDITIONS

The "buildup" approach has been utilized which combines existing traffic counts with a background ambient growth factor to forecast the EAP (2024) and EAPC (2024) traffic conditions. An ambient growth factor of 6.12% accounts for background (area-wide) traffic increases that occur over time up to the year 2024 from the year 2021 (two percent over a 3-year period). Project traffic is added to assess EAP (2024) and EAPC (2024) traffic conditions, respectively. Traffic volumes generated by cumulative development projects are included to assess the EAPC (2024) traffic conditions. The 2024 roadway networks are similar to the existing conditions roadway network with the exception of future intersections and driveways proposed to be developed by the Project.

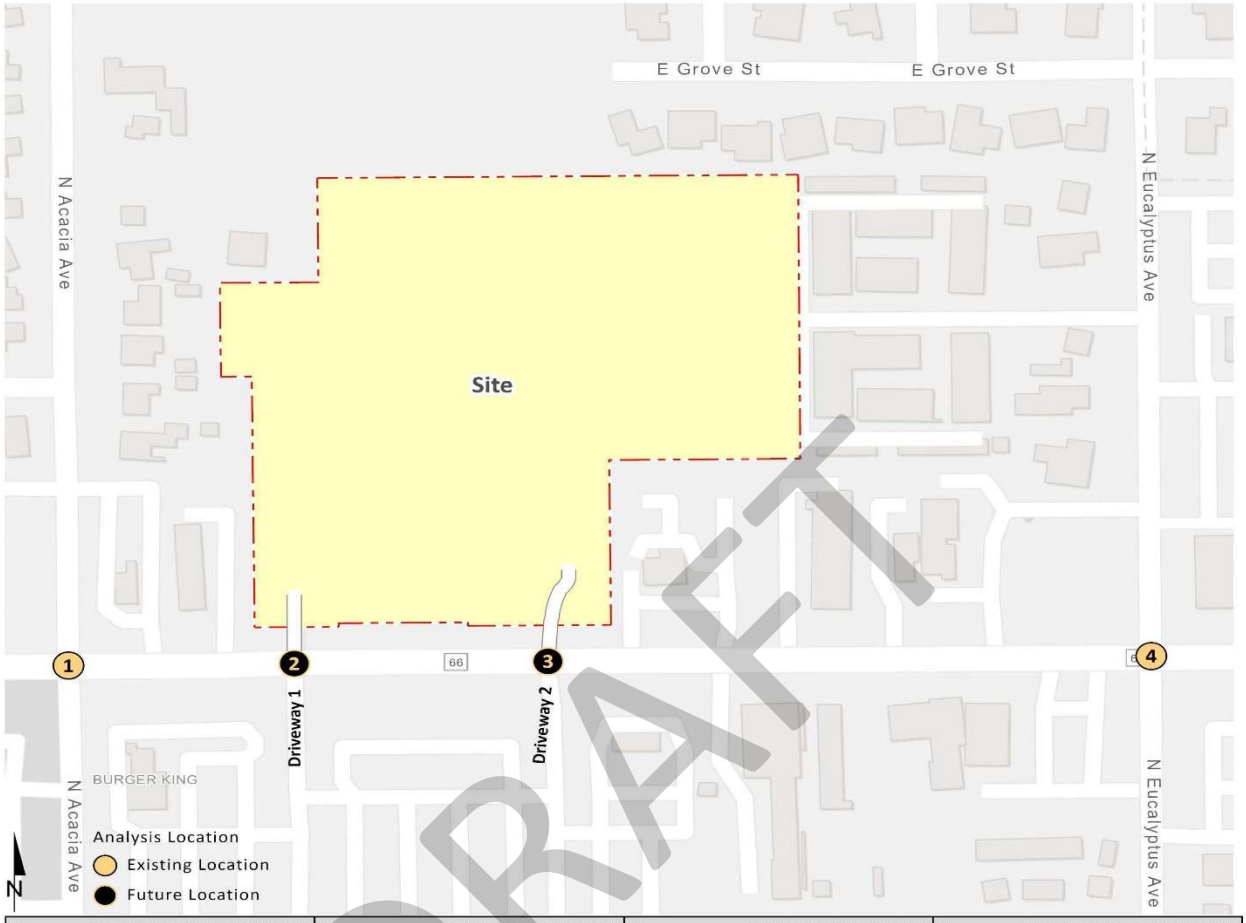
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EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP



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EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES



1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
2,800 ← 41(61) 56(54) → *1,400*	*2,800* ← 41(61) 56(54) → *1,400*	*2,800* ← 41(61) 56(54) → *1,400*	*2,800* ← 41(61) 56(54) → *1,400*

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

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5 EAP (2024) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Ambient Growth plus Project (EAP) conditions and the resulting intersection operations analysis.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EAP (2024) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12% and the addition of Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAP (2024) traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

EAP (2024) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized on Table 5-1 for EAP (2024) traffic conditions, which shows the following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

The intersection operations analysis worksheets for EAP (2024) traffic conditions are included in Appendix 5.1 of this TA.

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TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2024) CONDITIONS

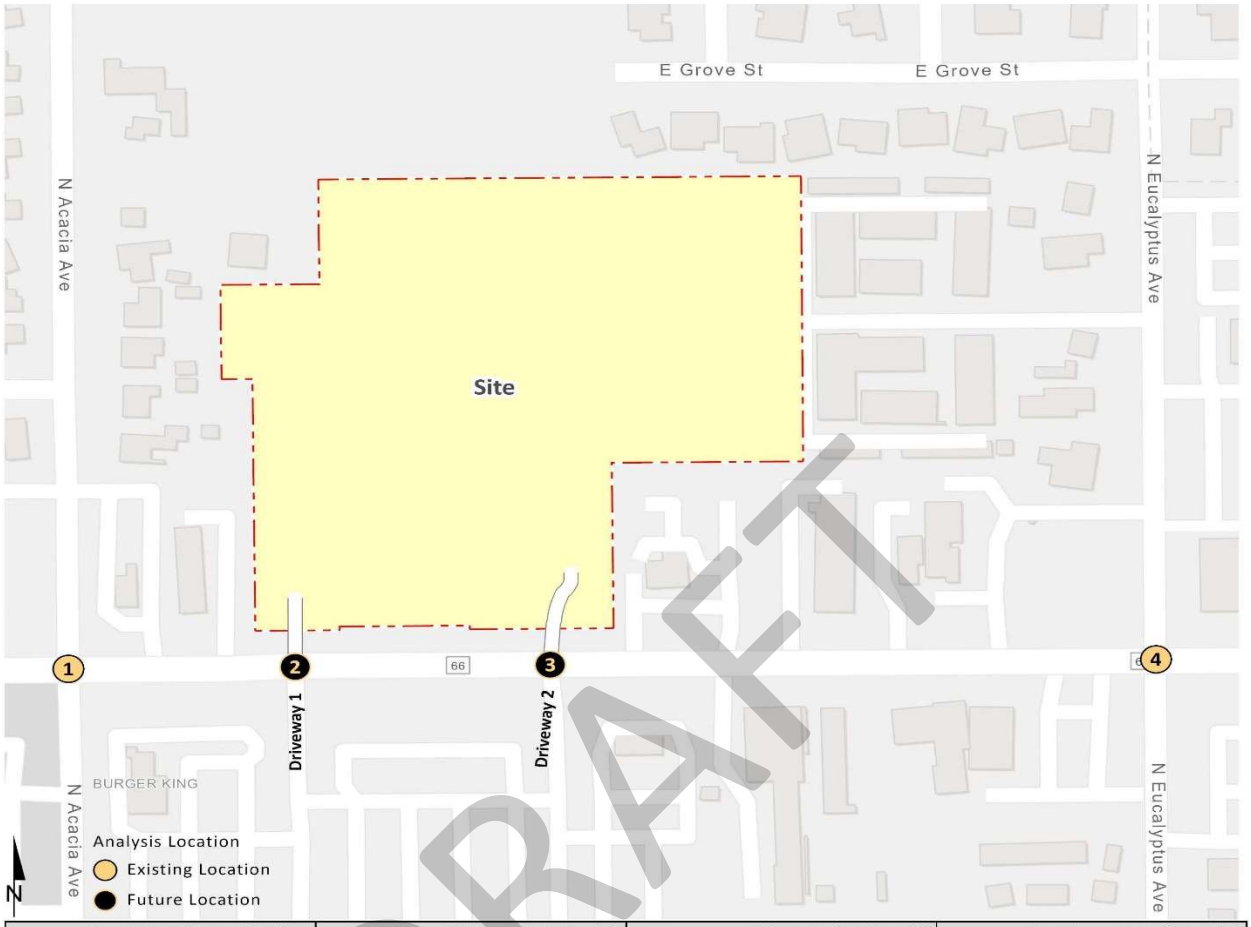
#	Intersection	Traffic Control[2]	Existing (2021) Delay[1] (secs.) AM	Existing (2021) Delay[1] (secs.) PM	Existing (2021) Level of Service AM	Existing (2021) Level of Service PM	EAP (2024) Delay[1] (secs.) AM	EAP (2024) Delay[1] (secs.) PM	EAP (2024) Level of Service AM	EAP (2024) Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	16.1	15.0	A	B	18.2	16.0	B	B
2	Driveway 1 & Foothill Blvd.	CSS	ersection	0.0	0.0	0.0	13.7	13.8	B	B
3	Driveway 2 & Foothill Blvd.	CSS	18.3	26.2	C	D	**35.5**	**44.4**	**E**	**E**
4	Eucalyptus Ave. & Foothill Blvd.	TS	12.8	13.4	B	B	13.0	13.8	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

[2] CSS = Cross-street Stop; TS = Traffic Signal

EXHIBIT 5-1: EAP (2024) TRAFFIC VOLUMES



DRAFT

1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
4,700 / 25,050	400 / 24,500	700 / 26,200	6,050 / 24,550
90(62) ↲ 103(143) ↓ 57(66) ↳	19(12) ↲	5(4) ↲ 30(19) ↳	101(119) ↲ 93(103) ↓ 51(32) ↳
↱ 39(45)	↱ 8(22)	↱ 6(10)	↱ 50(48)
← 1093(1074)	← 1112(1158)	← 1100(1153)	← 631(1026)
↰ 38(39)		↰ 46(88)	↰ 51(44)
49(71) →		9(25) →	56(107) →
1000(1119) →	1024(1379) →	997(1310) →	770(1108) →
59(103) ↲		18(41) ↲	62(62) ↲
↰ ↑ ↱		↰ ↱	↰ ↑ ↱
67(96) 87(122) 59(55)		15(15) 49(81)	62(71) 115(129) 98(69)
25,500 / 4,600	24,450	25,000 / 2,200	26,100 / 5,200

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

5.4 RECOMMENDED IMPROVEMENTS

While the intersection of Driveway 2 & Foothill Boulevard (#3) is anticipated to operate at an unacceptable LOS during EAP (2024) conditions and is warranted for a traffic signal under Existing (2021) conditions, installing a traffic signal or additional lane improvements beyond those to be implemented by the Project, have not been recommended. Installing a traffic signal would improve the intersection to an acceptable LOS and it would serve both the Project as well as the existing commercial retail property to the south, but it is important to note that the deficiency of the intersection is entirely caused by the high side street delays of vehicles waiting to turn onto Foothill Boulevard at the Project driveway (Driveway 2) and the southern property's driveway. The through traffic on Foothill Boulevard will not be affected under EAP (2024) traffic conditions and as delays increase, traffic at these locations may opt to utilize a different driveway (and will operate with acceptable LOS). As such, no improvements have been recommended for the purposes of this TA.

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6 EAPC (2024) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) traffic forecasts, and the resulting intersection operations analysis.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2024) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

6.2 EAPC (2024) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12% in conjunction with the addition of cumulative project development and Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAPC (2024) traffic conditions are shown on Exhibit 6-1.

6.3 INTERSECTION OPERATIONS ANALYSIS

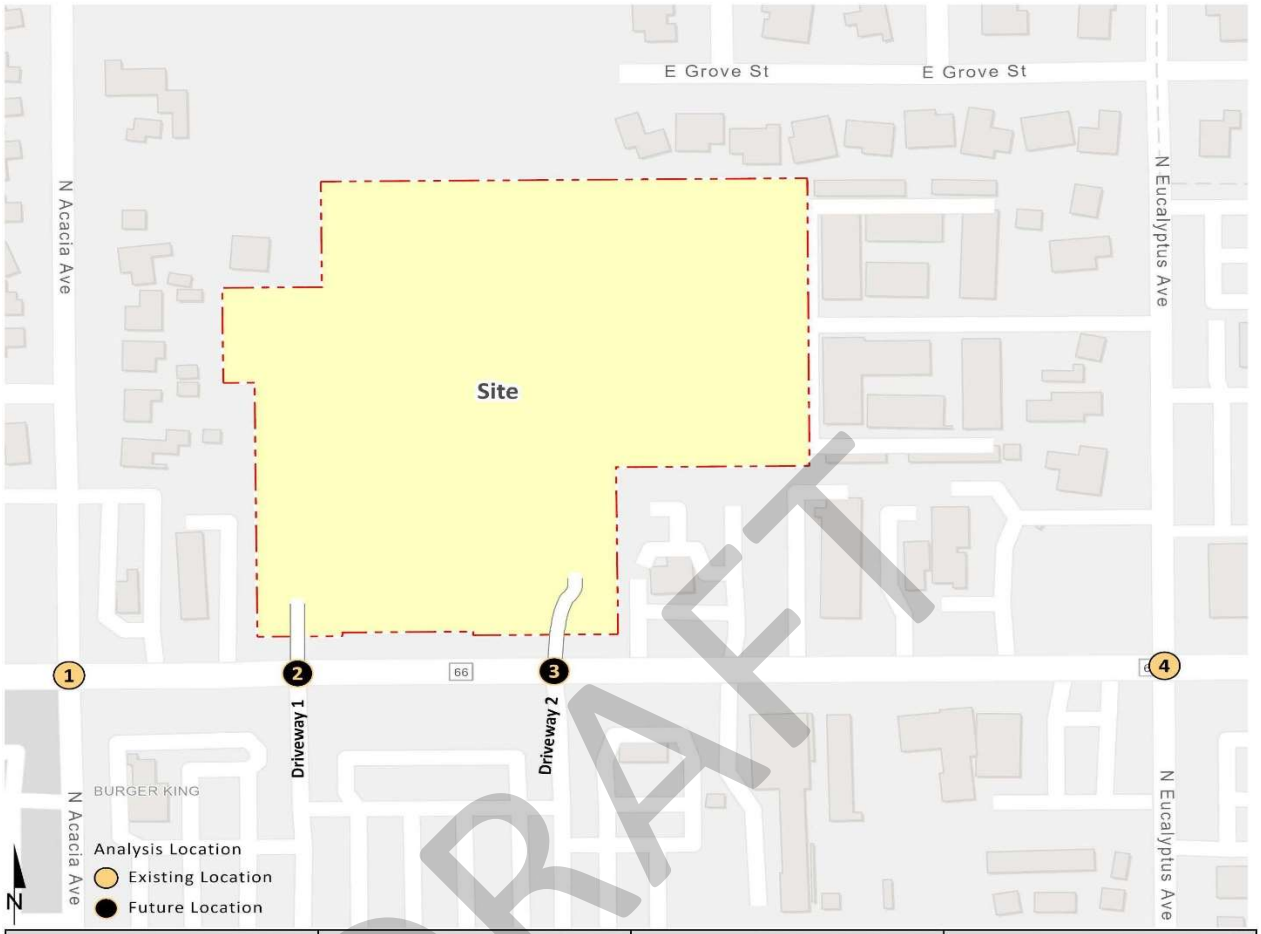
LOS calculations were conducted for the study intersections to evaluate their operations under EAPC (2024) traffic conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersection is anticipated to operate at an unacceptable LOS under EAPC (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

The intersection operations analysis worksheets for EAPC (2024) traffic conditions are included in Appendix 6.1.

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EXHIBIT 6-1: EAPC (2024) TRAFFIC VOLUMES



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1 Acacia Ave & Foothill Blvd.

4,700 — *27,800*

90(62) ↲	103(143) ↓	57(66) ↳
49(71) →		↰ 39(45)
1056(1173) →		← 1134(1135)
59(103) ↲		↰ 38(39)
	↰ 67(96)	
	↑ 87(122)	
	↱ 59(55)	

26,900 — *4,600*

2 Driveway 1 & Foothill Blvd.

400 — *27,300*

19(12) ↲	↱ 8(22)
1080(1433) →	← 1153(1219)

25,850

3 Driveway 2 & Foothill Blvd.

700 — *28,950*

5(4) ↲	30(19) ↳	↱ 6(10)
9(25) →		← 1141(1214)
1053(1364) →		↰ 46(88)
18(41) ↲	↰ 15(15)	
	↱ 49(81)	

26,350 — *2,200*

4 Eucalyptus Ave & Foothill Blvd.

6,050 — *27,350*

101(119) ↲	93(103) ↓	51(32) ↳
56(107) →		↰ 50(48)
826(1162) →		← 672(1087)
62(62) ↲		↰ 51(44)
	↰ 62(71)	
	↑ 115(129)	
	↱ 98(69)	

27,500 — *5,200*

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2024) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	19.7	17.1	B	B
2	Driveway 1 & Foothill Blvd.	CSS	14.1	14.3	B	B
3	Driveway 2 & Foothill Blvd.	CSS	38.3	49.1	E	E
4	Eucalyptus Ave. & Foothill Blvd.	TS	13.1	14.1	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

[2] CSS = Cross-street Stop; TS = Traffic Signal

6.4 RECOMMENDED IMPROVEMENTS

While the intersection of Driveway 2 & Foothill Boulevard (#3) is anticipated to operate at an unacceptable LOS during EAPC (2024) conditions and is warranted for a traffic signal under Existing (2021) conditions, installing a traffic signal or additional lane improvements beyond those to be implemented by the Project, have not been recommended. Installing a traffic signal would improve the intersection to an acceptable LOS and it would serve both the Project as well as the existing commercial retail property to the south, but it is important to note that the deficiency of the intersection is entirely caused by the high side street delays of vehicles waiting to turn onto Foothill Boulevard at the Project driveway (Driveway 2) and the southern property's driveway. The through traffic on Foothill Boulevard will not be affected under EAPC (2024) traffic conditions and as delays increase, traffic at these locations may opt to utilize a different driveway (and will operate with acceptable LOS). As such, no improvements have been recommended for the purposes of this TA.

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7 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.

7.1 CITY OF RIALTO DEVELOPMENT IMPACT FEE PROGRAM

In 2006, the City of Rialto adopted their DIF program incorporating the regional component of Measure I. The fee schedule was updated in June 2020. 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.

7.2 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 the SBCTA 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 2011. 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 SBCTA, 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.

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8 REFERENCES

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Rialto Foothill Apartments Project

Initial Study – Mitigated Negative Declaration

prepared by

City of Rialto
Community Development Department, Planning Division
150 South Palm Drive
Rialto, California 92376
Contact: Dionne Harris, M.Arch, Senior Planner

prepared with the assistance of

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November 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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November 2021

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Initial Study

1. Project Title

Rialto Foothill Apartments Project (proposed project; project)

2. Lead Agency Name and Address

City of Rialto
Community Development Department, Planning Division
150 S. Palm Avenue
Rialto, California 92376

3. Contact Person and Phone Number

Dionne Harris, M.Arch, Senior Planner
909-820-2525, ext. 2139

4. Project Location

534 Foothill Boulevard
Rialto, California 92376

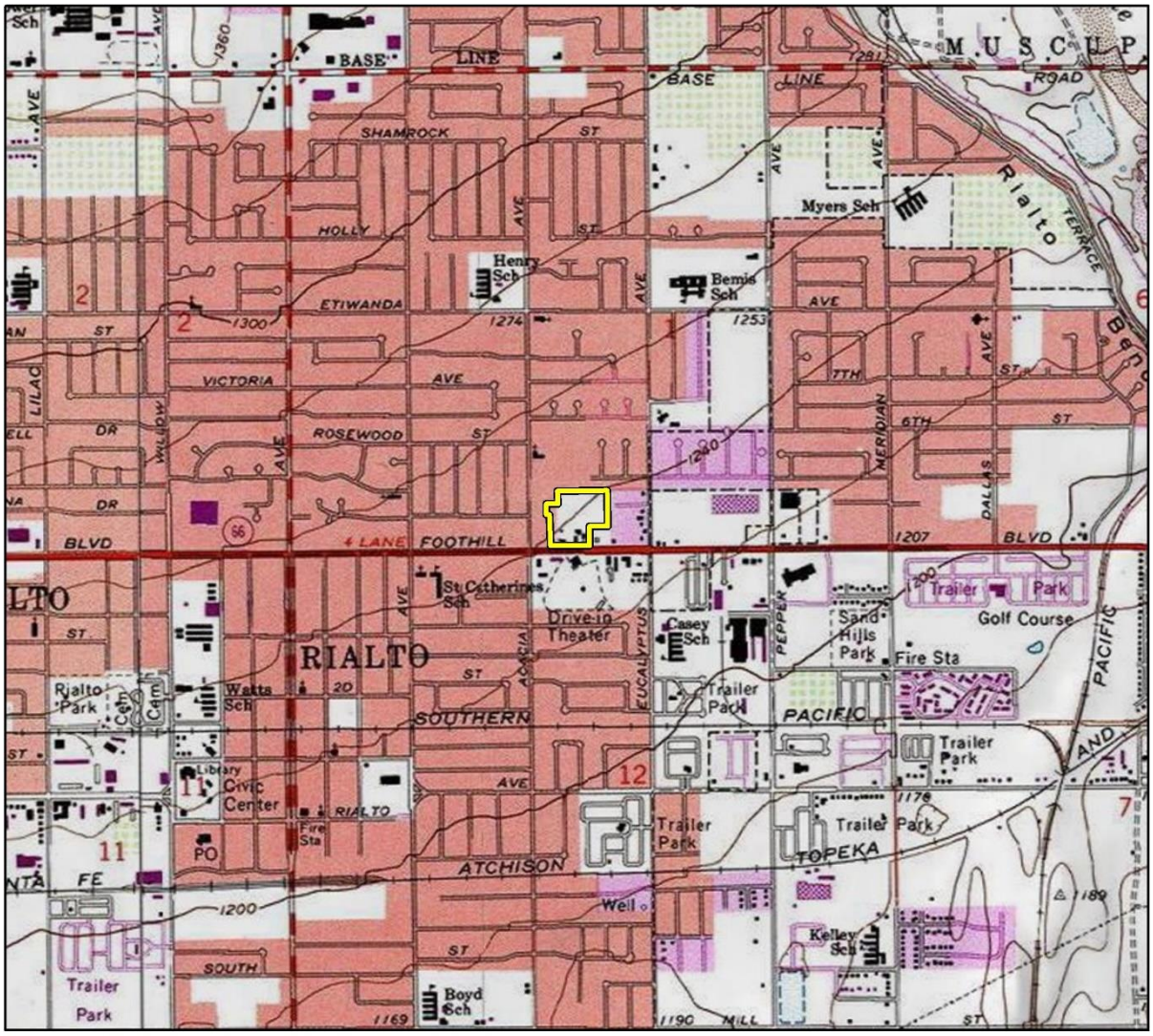
5. Project Sponsor's Name and Address

Frontier Enterprises
Tim Nguyen, Acquisitions and Development, Project Director
2151 East Convention Center Way, Suite 222
Ontario, California 91764

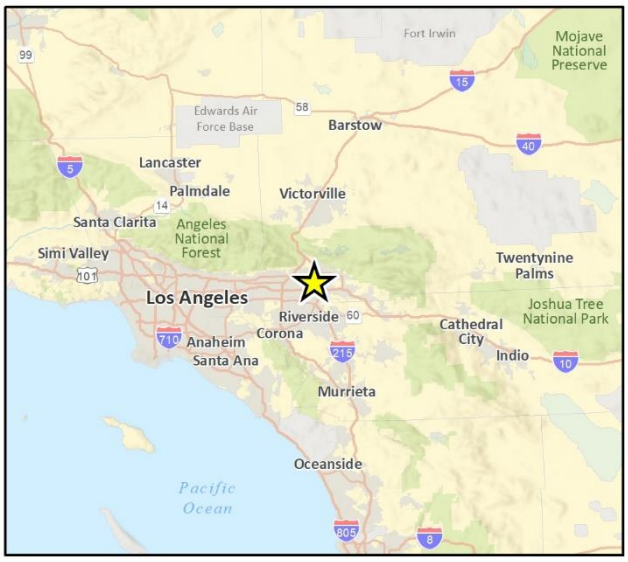
6. Project Location Description

The 8.06-acre project site is located on the north side of East Foothill Boulevard, west of Eucalyptus Avenue, and east of North Acacia Avenue at 534 Foothill Boulevard in the City of Rialto, San Bernardino County. The project site is composed of assessor's parcel numbers (APNs) 013317109, 013317108, 013317107, and 013317131. The site can be locally accessed from East Foothill Boulevard or via an emergency access road from North Acacia Avenue. Regionally, the site is served by State Route 66 (SR 66), and Interstates 215 and 10 (I-215, I-10). Four bus stops in the immediate vicinity provide access to transit bus Route 14, operated by OmniTrans. Figure 1 shows the location of the project site in its regional context and Figure 2 shows the site in its neighborhood context.

Figure 1 Regional Location



Basemap provided by National Geographic Society, Esri and their licensors © 2021. San Bernardino South Quadrangle. T01S R05W S01. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.



Project Location

0 1,000 2,000 Feet

N

CRFig 1 Proj Locn Map

Figure 2 Project Site Location



Imagery provided by Microsoft Bing and its licensors © 2021.

Fig 2 Project Site Location

7. General Plan Designation

The City of Rialto General Plan designates the project site as Specific Plan Overlay, within the Foothill Boulevard Specific Plan (Specific Plan) area. According to the Specific Plan, the project site is designated as Residential-Mixed Use (R-MU).

8. Zoning

The project site is zoned Foothill Boulevard Specific Plan. Upon adoption of the Specific Plan in May 2010, the regulations of the Specific Plan replaced the zoning regulations of the Rialto Municipal Code (RMC), Chapter 18 (Zoning). Consistent with the Specific Plan and land use designations, the project site is zoned Residential-Mixed Use (R-MU).

9. Existing Setting and Surrounding Land Uses

The 8.06-acre site is currently vacant with evidence of prior grading, and regular maintenance for weed abatement. The project site is relatively flat, ranging between approximately 1,230 feet to 1,240 feet above mean sea level. The project site is comprised of four parcels, as summarized in Table 1.

Table 1 Project Site Parcels

APN	Acreage
013317109	1.23
013317108	2.36
013317107	2.39
013317131	2.08
Total	**8.06**

Source: San Bernardino County 2021.

The project site is located in an urbanized area. Existing uses adjacent to the project site include commercial uses (retail, auto-oriented services, food service) and single- and multi-family residential. All of the properties adjacent to the project site are located in the Foothill Boulevard Specific Plan area. Table 2 provides a summary of existing adjacent uses.

Table 2 Surrounding Uses

Relation to Project Site	Zoning Designation	Existing Use(s)
North	Residential-Mixed Use (R-MU)	Vacant, single-family residences
South	Commercial-Pedestrian (C-P)	Shopping center (grocery store, automotive, restaurants, commercial services)
East	R-MU	Automotive, multi-family residences
West	R-MU, C-P	Automotive, restaurant, single-family residences

Source: Rialto 2013.

10. Description of Project

The 534 Foothill Boulevard Project (project) proposes the development of 204 multi-family residential units comprised of seven three-story buildings with a maximum height of 40 feet. Table 3 summarizes the project components and Table 4 contains a unit summary. Figure 3 shows the project site plan. All proposed project plans, including floor plans and conceptual building elevations are included in Appendix A.

The proposed residential units would consist of one- to three-bedroom units, ranging between 722 square feet (sf) to 1,132 sf. The proposed residential units would be configured in four buildings that contain 24 units and three buildings that contain 36 units. Two 24-unit buildings would be fronting E. Foothill Boulevard, and the rest would be distributed throughout the site with surface parking along the perimeter of the project site (along the west, north, and east project site boundaries) and around the outside perimeter of building clusters.

The project includes construction of a 3,210-sf leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas.

Building materials would include stucco for most of the building façade, accented with wood and stucco trim, brick, wrought iron, and corbel. Proposed roofing materials would consist of concrete tile to complement the existing adjacent uses.

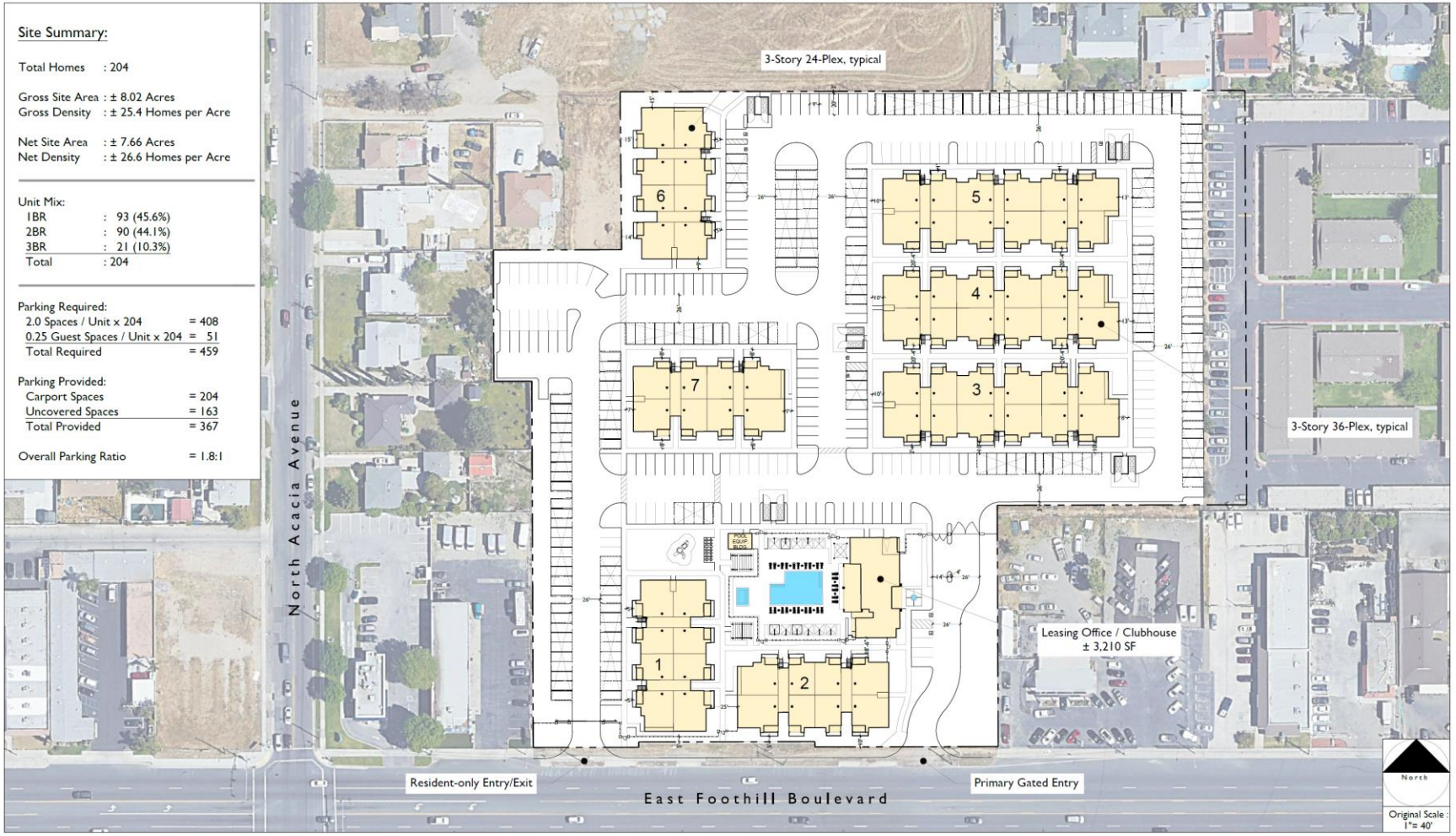
Vehicular Access, Parking, and Pedestrian Access

Vehicular access to the project site would be provided via two driveways located along East Foothill Boulevard along the southern boundary of the project site, and one emergency vehicle access driveway located along North Acacia Avenue in the northwest corner of the project site. Proposed residences and parking spaces would be accessed through private vehicle circulation drive aisles on-site.

The proposed project requires 459 parking spaces (or 2.25 spaces per dwelling unit) pursuant to RMC Section 18.58.060, which specifies minimum parking spaces for residential uses. As summarized in Table 3, a total of 367 parking spaces would be available for the 204 units; or a total parking ratio of 1.8 spaces per dwelling unit. The Institute of Transportation Engineers parking supply survey determined that weekday peak parking demand for multifamily developments was approximately 1.3 spaces per unit, while actual supply was approximately 1.7 spaces per unit; both of which are lower parking space ratios than the City's Municipal Code parking requirements. The proposed parking

reduction would provide adequate off-street parking capacity adequate off-street parking capacity for the proposed project (further discussed in Section 17, *Transportation*, and the project Traffic Analysis included as Appendix H). Residential parking spaces would be provided in the form of covered carports or uncovered spaces.

Figure 3 Proposed Site Plan



Source: Bassenian Lagoni Architects 2021.

Table 3 Project Components

Project Component	Specific Plan/Zoning Requirement	Project[1]
Land Use	Residential-Mixed Use (R-MU) permitted residential types: Single-family dwellings (attached, detached), multi-family dwellings, live-work units, home occupations, large and small child day cares, accessory uses and structures for residential uses	Residential: Multi-family dwellings
Acreage	Minimum 1 acre for residential subdivisions or new multi-family	8.06 acres (gross) 7.66 acres (net)
Density	13 to 30 du/ac	Approximately 25 du/ac (204 units)
Height	Maximum 75 feet	Approximately 40 feet
Setbacks		
Abutting a Residential Zone ▪ Up to 35 ft height ▪ 35 ft or greater height	 ▪ 7 feet, landscaped with trees ▪ 1 additional foot for each 2 feet of height over 35 feet	Minimum 17 feet
Street and Alley	Minimum 5 feet	7 feet to 12 feet from sidewalk, fronting Foothill Boulevard
Interior Side Yard Not Abutting Residential	Minimum 5 feet, 10 feet average	> 10 feet
Interior Rear Yard Not Abutting Residential	0 feet	NA
Parking		
Residential	2 spaces per unit (minimum 408 spaces for project)	204 spaces (covered carport) 163 spaces (uncovered)
Guest	1 space per 4 units (minimum 51 spaces for project)	–
Total Parking Spaces	**459 parking spaces**	**367 parking spaces[2]**

[1] sf = square feet; du/acre = dwelling units per acre

[2] Pursuant to RMC Section 18.58.20(K) with variance permit

Source: Rialto 2010a, 2010b

Pedestrian access to the project site would be via the existing sidewalks along East Foothill Boulevard. The project site is also accessible from four OmniTrans bus stops located near the intersections of Acacia Avenue and East Foothill Boulevard and Eucalyptus Avenue and East Foothill Boulevard. Site plans indicate on-site pedestrian walkways with landscaping and shade trees for residents and guests.

Table 4 Unit Summary

Unit Type	Quantity	Square Footage Per Unit (sf)
1 Bedroom	93	722
2 Bedroom	90	941 to 999
3 Bedroom	21	1,132
Subtotal	**204**	

Open Space and Landscaping

The project includes an enclosed dog park located in the northwest corner of the site and a tot lot playground area adjacent to the west boundary of the pool and clubhouse, amenities for residential use. The pool and clubhouse would be centrally located on the project site and contain an outdoor kitchen with grills and table seating, a central lap pool and spa with decorative concrete sun deck, and a yoga lawn outside the fitness room (Appendix A). Two additional outdoor BBQ grills and table settings would be provided near the three-building cluster located on the east side of the project site.

The project site plan includes landscaping in and around the proposed buildings, which serve as common greenspace for residents; as well as landscaping around the perimeter of the site by designated parking areas. A variety of trees would be planted throughout the site and parking areas to provide ample shade cover. The driveway entrances include decorative unit pavers and the frontage of the project site would include a landscape mesh screen, consistent with the design elements identified in the Foothill Boulevard Specific Plan to create a distinct sense of place that is compatible with existing development in the vicinity of the project site.

Construction and Phasing

Construction of the proposed project is expected to commence in October 2022 with a construction duration of approximately 24 months to be completed in one phase by October 2024. Total grading for the proposed project is estimated to require 23,000 cubic yards (cy) of cut soil, which would be used as fill with an additional 5,000 cy imported for fill. No soil would be exported from the project site.

11. Required Permits

The City of Rialto (City), as the Lead Agency under the California Environmental Quality Act (CEQA), is responsible for reviewing and approving this Initial Study. As part of the proposed project's implementation, the City will also consider the following discretionary approvals:

- Precise Plan of Design (PPD)
- Variance Permit

The PPD package is comprised of the following components: site plan, floor plan, roof plan, elevation plan, conceptual grading plan, preliminary Water Quality Management Plan, color elevations, color and materials board, and conceptual landscape plan. The Variance Permit would allow for fewer parking spaces on-site than required, to encourage residents to use alternative transportation modes.

Additional permits may be required upon review of construction documents. Other permits required for the proposed project may include the issuance of encroachment permits for new driveways, sidewalks, and utilities, walls, fences, security and parking area lighting; building permits; and permits

for new utility connections. These additional permits are considered ministerial, and thus issuance of these permits would not trigger the need to further comply with CEQA. Development of the proposed project does not require the issuance of any discretionary permits from any other federal, State, or local agency.

12. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

To date, the City of Rialto has received request for consultation pursuant to Assembly Bill (AB) 52from the Gabrieleño Band of Mission Indians – Kizh Nation. See Section 18, *Tribal Cultural Resources*, for additional discussion.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and 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	☐	Population/Housing	☐	Public Services
☐	Recreation	■	Transportation	■	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	■	Mandatory Findings of Significance

Determination

Based on this 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 to 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 "less than significant with mitigation incorporated" 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 although the proposed project could have a significant effect on the environment, because all potential 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.

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, 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. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

a. Would the project have a substantial adverse effect on a scenic vista?

As stated in Table 3, the proposed multi-family residential buildings would be approximately 40 feet tall, which is below the maximum building height of 75 feet for the project site pursuant to the Foothill Boulevard Specific Plan. The proposed buildings would be placed throughout the center of the project site with residential and guest parking spaces along the west, north, and east project site boundaries and around building clusters.

New buildings and development anticipated in the Foothill Boulevard Specific Plan area could reduce views of scenic resources such as the San Gabriel and San Bernardino Mountains. The following Rialto General Plan goals and policies are aimed at preserving scenic vistas and resources:

Goal 2-14 Protect scenic vistas and scenic resources.

Policy 2-14.1 Protect views of the San Gabriel and San Bernardino Mountains by ensuring that building heights are consistent with the scale of surrounding, existing development.

Policy 2-14.2 Protect views of the La Loma Hills, Jurupa Hills, Box Spring Mountains, Moreno Valley, and Riverside by ensuring that building heights are consistent with the scale of surrounding, existing development.

The project site itself is relatively flat, ranging between approximately 1,230 feet to 1,240 feet above mean sea level, and located in a developed area that consists of existing commercial and residential uses. The project is considered an infill development project, consistent with the goals and policies of the Foothill Boulevard Specific Plan (further discussed in Section 11, *Land Use and Planning*). There are no scenic resources or vistas located on or in the immediate vicinity of the project site. The project site and vicinity have limited distant views of the San Gabriel and San Bernardino Mountains which are located approximately seven miles north and east of the project site; and of the La Loma Hills, Jurupa Hills, Box Spring Mountains, Moreno Valley, and Riverside which are located greater than five miles south of the project site. The project site and surrounding roadways are obscured by existing urban development that consists of buildings, landscaping, and overhead utilities. Implementation of the project would not result in a degradation of views from the project site to the above identified scenic resources. Although the proposed project would result in a change to the visual environment and reduce the availability of some distant views, this change would not substantially affect the aesthetic of or views from the project site. Changes to the visual character of the project site and altered views from surrounding areas as a result of the project would not be considered to have a significant impact on scenic vistas or resources. Therefore, the project would have a less than significant impact on scenic vistas and resources, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The project site is regionally accessible via SR 66 (Foothill Boulevard, adjacent to the southern boundary of the project site), I-215 (approximately 3.3 miles east), and I-10 (approximately 2.7 miles south). There are no State or County designated scenic highways proximate to the project site (California Department of Transportation [Caltrans] 2021). The project site is relatively flat, is not visible from any of these highways, and is within an urbanized neighborhood with existing residential, commercial, and recreational uses. The project site does not have rock outcroppings, historic buildings, or trees. Therefore, the project would have no impact on scenic resources, and no mitigation measures would be required.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Foothill Boulevard Specific Plan calls for densification and intensification of uses within the Specific Plan area, to encourage property owners to consolidate and revitalized properties in a shorter timeframe. The project site is vacant and is located adjacent to existing commercial and residential land uses along the Foothill Boulevard corridor. The project would result in an intensification of residential uses, and development standards for building form and character are included in the Foothill Boulevard Specific Plan. Furthermore, the project is designed to reinforce the intent of the Foothill Boulevard Specific Plan such that proposed multi-family residences would be located along the frontage of Foothill Boulevard, at a maximum of three-stories in height to provide an urban residential aesthetic by existing commercial uses with generous setbacks to retain privacy for adjacent residential uses. Therefore, the project would have a less than significant impact with respect to existing visual character and quality, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The City of Rialto is primarily built out, and a substantial amount of ambient light from urban uses already exists on the project site and vicinity. Implementation of the Foothill Boulevard Specific Plan would result in infill of vacant lands, as well as intensification and reuse of existing sites.

The project site is not located in the vicinity of sensitive habitat areas. The proposed buildings would be constructed in area that already contains commercial and residential development, and along a major roadway. The project site is located in an area that currently has a substantial amount of ambient lighting from existing adjacent uses and vehicle traffic. The project would entail development of a vacant site that is adjacent to existing commercial and residential uses, which would increase light and glare on-site that is consistent with an urbanized area. The proposed project would introduce new light sourced from outdoor illumination of parking areas, building entrances, and vehicles; and new sources of glare would be created from window reflections of proposed buildings, and reflection from vehicle windshields. The Rialto General Plan encourages the reduction of light and glare through the incorporation of the following policy:

> **Policy 2-14.3** Ensure use of building materials that do not produce glare, such as polished metals or reflective windows.

The Foothill Boulevard Specific Plan contains standards for new building and site enhancements, which specifies that light fixtures shall be shielded such that no glare shall be directed onto adjacent properties or public right-of-way. The lighting used for the proposed buildings and parking areas would be consistent with the existing sources of nighttime lighting in the area from the surrounding uses and street lighting along Foothill Boulevard. Consistent with the Rialto General Plan Policy 2-14.3 and the standards of the Foothill Boulevard Specific Plan, new sources of lighting would be shielded to prevent light from shining directly onto adjacent properties. In addition, the proposed buildings would not incorporate building materials (i.e., reflective glass) or lighting that would cause a substantial new source of glare. Proposed development would comply with Rialto's lighting standards and the primary building materials (stucco, concrete, brick, wrought iron accents) would not create

high levels of glare. Therefore, the project would have a less than significant impact with respect to light and glare, and no mitigation would be required.

LESS THAN SIGNIFICANT IMPACT

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	■

a. Would the project 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. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project 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?

The project site and vicinity are within an urbanized area in the City of Rialto. There are no agricultural resources, Williamson Act-contracted land, or forest land located on or near the project site. The project site and all surrounding properties are classified as "Urban and Built-Up Land" on the State Department of Conservation's farmland mapper (2015). The project would not convert agricultural land to non-agricultural uses nor result in the loss of forest land or conversion of forest land to non-forest use. The site's urban zoning designation of R-MU would not change. Therefore, the project would have no impact on agriculture or forestry resources, and no mitigation measures would be required.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b. 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?	☐	☐	■	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

The air quality discussion herein is based on a project-specific Air Quality and Greenhouse Gas (GHG) Study (AQ/GHG Study) that was prepared by Rincon Consultants, Inc. (Appendix B). The AQ/GHG Study provides an overview of air quality, briefly summarized below.

Air Quality Overview

The project site is located within the City of Rialto within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Air quality in the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions in the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles (Appendix B).

Regulatory Setting

As the regional air quality management district, the SCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." The health effects associated with criteria pollutants upon which attainment of State and federal air quality standards is measured are described in Table 5.

Table 5 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) Aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO_2)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO_2)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.

[1] More detailed discussion on the health effects associated with exposure to suspended particulate matter can be found in the following documents: Office of Environmental Health Hazard Assessment, Particulate Matter Health Effects and Standard Recommendations, www.oehha.ca.gov/air/toxic_contaminants/PM10notice.html#may, May 9, 2002; and U.S Environmental Protection Agency (USEPA), Air Quality Criteria for Particulate Matter, October 2004.

Source: USEPA 2016

Rialto General Plan

Goal 2-34 Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction.

Policy 2-34.2 Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills.

Policy 2-34.3 Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.

Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City.

Policy 2-35.2 Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.

Policy 2-35.4 Require new development and significant redevelopment proposals to incorporate sufficient design and operational controls to prevent release of noxious odors beyond the limits of the development site.

Goal 2-36 Reduce the amount of fugitive dust released into the atmosphere.

Policy 2-36.1 Put conditions on discretionary permits to require fugitive dust controls.

Methodology and Significance Thresholds

The project's construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footage, and location, to estimate a project's construction and operational emissions.

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. Emissions were modeled assuming construction of a 204-unit apartment complex. The construction schedule, list of construction equipment, and soil import volume used in CalEEMod were based on information provided by Frontier Enterprises. In addition, it was assumed that project construction would comply with all applicable regulatory standards, including SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings).

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions consist of emissions generated by residents to and from the project site. Emissions attributed to energy use include emissions from natural gas consumption for space and water heating and cooking. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. It was assumed that project operation would comply with all applicable regulatory standards, including SCAQMD Rule 445 (Wood-Burning Devices) and Rule 1113 (Architectural Coatings).

The SCAQMD has adopted an Air Quality Management Plan (AQMP) that addresses several State and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Governments' (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP. The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB. These thresholds are shown in Table 6.

Table 6 SCAQMD Air Quality Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of ROG	55 pounds per day of ROG
100 pounds per day of NO_X	55 pounds per day of NO_X
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO_X	150 pounds per day of SO_X
150 pounds per day of PM_{10}	150 pounds per day of PM_{10}
55 pounds per day of $PM_{2.5}$	55 pounds per day of $PM_{2.5}$

[1] Reactive Organic Gases (ROG) are formed during combustion and evaporation of organic solvents. ROG are also referred to as Volatile Organic Compounds (VOC).

Source: SCAQMD 2019

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated at project sites up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008a). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips.

LSTs have been developed for emissions generated by construction sites up to five acres in size. The project site is located in SRA 34 (Central San Bernardino Valley) and is approximately 8.06 acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. Given realistic construction practices, the active area of ground disturbance and/or heavy equipment usage during construction at any one site would not be expected to exceed five acres of the construction site at once. Therefore, it is appropriate to use the LSTs for construction sites up to five acres in size for this analysis (SCAQMD 2008a). This provides a conservative evaluation of project impacts because the LSTs for these sizes of construction sites provide more stringent thresholds for construction emissions as compared to the analysis of emissions over a larger area. LSTs are provided for receptors at a distance of 25 to 500 meters (82 to 1,640 feet) from the project site boundary. The closest sensitive receptors to the project site are residences located immediately north, east, and west of the project site; therefore, per SCAQMD guidance, LSTs for receptors at a distance of 82 feet were utilized (SCAQMD 2008a). LSTs for construction on a five-acre site in SRA 34 for a receptor at 82 feet are shown in Table 7.

Table 7 SCAQMD LSTs for Construction

Pollutant	Allowable Emissions from an Active Five-acre Construction Site in SRA 34 for a Receptor at 82 Feet (pounds/day)
Gradual conversion of NO_x to NO_2	207
CO	1,746
PM_{10}	14
$PM_{2.5}$	8

LST = Localized Significance Threshold; SRA = Source Receptor Area; NO_X = nitrogen oxides; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter measuring 10 microns in diameter or less; $PM_{2.5}$ = particulate matter measuring 2.5 microns in diameter or less
Source: SCAQMD 2009

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2016 AQMP relies on local general plans and the demographic forecasts contained in the SCAG 2016 RTP/SCS in its own projections for managing air quality in the SCAB.[1] As such, projects that propose development that is consistent with the growth anticipated by SCAG's growth projections and/or the General Plan would not conflict with the SCAQMD AQMP. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the AQMP.

The proposed project involves the construction of 204 multi-family residential units. According to data from the California Department of Finance (DOF), the current population of Rialto is approximately 102,567 persons, and the average household size is 3.96 persons (DOF 2021). Therefore, the proposed project would result in a net increase of approximately 808 residents (204 units x 3.96 persons/unit). It is likely that not all net new residents would become new residents of Rialto (they may, for example, already live in the city). However, this analysis conservatively assumes that all project residents would become new residents of the city. SCAG estimates the population of Rialto will increase to approximately 112,000 persons by 2040, which is an increase of approximately 9.2 percent or 9,433 persons, as compared to existing conditions (SCAG 2016). The proposed project would directly increase the existing population by approximately 804 residents, which would be within SCAG's 2040 population forecast for the city.

Currently, there are 27,619 housing units in Rialto (DOF 2021). By 2040, the number of households in the city is expected to grow to 31,500 units, which would be an increase of approximately 4,981 housing units as compared to existing conditions. The addition of 204 new residential units in Rialto would comprise approximately four percent of this forecasted increase.

Given the above analysis, population and housing growth generated by the project would be within the respective SCAG growth forecasts upon which the AQMP relies. Thus, the project would not conflict with the AQMP. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

[1] On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). However, the 2016 AQMP was adopted prior to this date and relies on the demographic and growth forecasts of the 2016-2040 RTP/SCS; therefore, these forecasts are utilized in the analysis of the project's consistency with the AQMP.

b. Would the project 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?

Table 8 summarizes the estimated maximum daily emissions of pollutants associated with construction of the proposed project. As shown below, VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD regional thresholds or LSTs. Because air pollutant emissions generated by project construction would not exceed SCAQMD's regional significance thresholds or LSTs, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Project construction impacts on air quality would be less than significant, and no mitigation measures would be required.

Table 8 Project Construction Emissions

	Maximum Emissions (lbs/day)					
Year	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2022	8	86	68	<1	9	6
2023	69	21	25	<1	4	2
2024	69	19	25	<1	4	2
Maximum Daily Construction Emissions	**69**	**86**	**68**	**<1**	**9**	**6**
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum Daily On-site Emissions	**68**	**91**	**64**	**<1**	**8**	**6**
SCAQMD Localized Significance Thresholds (LSTs)	N/A	207	1,746	N/A	14	8
Threshold Exceeded?	N/A	No	No	N/A	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X =sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulatory standards, including SCAQMD Rule 403 (Fugitive Dust) and SCAQMD Rule 1113 (Architectural Coatings). Emissions presented are the highest of the winter and summer modeled emissions. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources such as heavy construction equipment and architectural coatings and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Operational Emissions

Table 9 summarizes the project's operational emissions by emission source. The majority of project-related operational emissions would result from vehicle trips to and from the site. As shown in Table 9, operational emissions would not exceed SCAQMD regional thresholds for criteria pollutants. Because project emissions would not exceed SCAMQD thresholds, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Project impacts during operations would be less than significant, and no mitigation measures would be required.

Table 9 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs./day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	5	3	18	<1	<1	<1
Energy	<1	1	<1	<1	<1	<1
Mobile	3	3	28	<1	7	2
Project Emissions	**8**	**7**	**47**	**<1**	**7**	**2**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X =sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results that include compliance with regulatory standards, including SCAQMD Rule 445 (Wood-Burning Devices) and Rule 1113 (Architectural Coatings). Emissions presented are the highest of the winter and summer modeled emissions.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Carbon Monoxide Hotspot Impact

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and State eight-hour standard of 9.0 ppm (California Air Resources Board [CARB] 2016).

The entire SCAB is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. In 2020, the maximum 8-hour average CO value at the San Bernardino 4th Street station was 1.1 ppm, which is below the state and federal 8-hour CO standard of 9.0 ppm (USEPA 2020a). As shown in Table 8, maximum daily CO emissions generated by project construction would be 69 pounds, and maximum on-site emissions would be 68 pounds, which would not exceed SCAQMD's regional threshold (550 pounds per day) or LST (1,768 pounds per day) for CO. Likewise, as shown in Table 9, operational emissions from area, energy, and mobile sources combined would generate maximum daily CO emissions of approximately 47 pounds, which is below the SCAQMD regional threshold of 550 pounds. Both the SCAQMD's regional thresholds and LSTs are designed to be protective of public health. Based on the low background level of CO in the project area, ever-improving vehicle emissions standards for new cars in accordance with State and federal regulations, and the project's low level of operational CO emissions, the project would not create new CO hotspots or contribute substantially to existing CO hotspots. Therefore, the proposed project would not expose sensitive receptors to substantial CO concentrations, and localized air quality impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants (TACs)

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2021a) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 24 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 24 months) is approximately six percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District 2017).

The maximum PM_{10} and $PM_{2.5}$ emissions would occur during site preparation and grading activities. These activities would last for approximately five months. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent approximately one percent of the total 30-year exposure period for health risk calculation. Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic

emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (2005). Together, the CARB and SCAQMD guidelines recommend siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Residential land uses are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land uses would be below thresholds warranting further study under the California Accidental Release Program. Because the project would not include substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, it would not result in the exposure of off-site sensitive receptors to significant amounts of carcinogenic or toxic air contaminants. Therefore, project impacts would be less than significant, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The project would generate oil or diesel fuel odors during construction from equipment operations. These odors would be limited to the temporary construction period and would dissipate rapidly with distance.

With respect to odors generated by project operation, the SCAQMD's *CEQA Air Quality Handbook* (1993) identifies land uses associated with odor complaints to be agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. Residential uses are not identified on this list. The project entails residential use on-site, which is not listed on Figure 4-3 of the 1993 SCAQMD *CEQA Air Quality Handbook* as uses that require analysis of odor impacts. Further, residential uses are not identified on Figure 5-5, *Land Uses Associated with Odor Complaints*, of the Handbook (1993). Substantial objectionable odors are normally associated with such uses as agriculture, wastewater treatment, industrial facilities, or landfills. The proposed residential use would not generate objectionable odors affecting a substantial number of people. Therefore, the project would have no impact on other emissions such as odors, and no mitigation measures would be required.

Furthermore, no odor-producing uses are located in the project vicinity. The project would be required to comply with SCAQMD Rule 402 (Nuisance), which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. Project impacts would be less than significant, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c. Have a substantial adverse effect on state or federally protected wetlands (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, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Biological Setting

Rialto is located in a largely urbanized portion of San Bernardino County, with areas of natural vegetation and critical habitat limited to the north in the San Gabriel and San Bernardino Mountains along the Lytle Creek Wash. Natural communities include Riversidean sage scrub, Riversidean alluvial fan sage scrub, and riparian and ruderal habitats (Rialto 2010). Remnant habitat occurs in pockets of open space east of the former Rialto Municipal Airport and south of 7th Street.

Approximately 89 acres of Lytle Creek Wash consisting primarily of Riversidean alluvial fan sage scrub has been designated as critical habitat for the federally endangered San Bernardino kangaroo rat. The project site is approximately 1.3 miles from this area and is not located in or near critical habitat areas.

Prior to conducting the biological field survey, Rincon reviewed the project plans (provided by the project proponent), aerial photographs and previous historical land use of the project site, as well as a previous IS-MND for a prior project on the same site (Rialto 2016). Queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2021) and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2021) were conducted to obtain comprehensive information regarding state and federally listed species as well as other special-status species considered to have potential to occur within a five-mile radius of the project site. For CNPS query purposes, a nine-quadrangle search area centered on the project site was used, species with elevation ranges exceeding that of the project site (1,230 - 1,240 feet above mean sea level) were excluded, and California Rare Plant Rank 4 species were excluded.

In addition, regionally occurring special-status biological resources and geological information related to the site were researched from the following sources:

- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal
- USFWS Information for Planning and Consultation
- USFWS National Wetland Inventory (NWI) Mapper
- Natural Resources Conservation Service (NRCS) Web Soil Survey

A field reconnaissance survey was conducted by a Rincon biologist on August 10, 2021 to document the existing site conditions and to evaluate the potential for presence of special-status biological resources including special-status plant and animal species, sensitive plant communities, potentially jurisdictional waters of the U.S. and wetlands, and habitat for federally and State protected species.

The entire survey area is a historically graded site, soils have been completely disturbed and vegetation mowed. The site was previously prepared for development evidenced by excavated soils including slopes for construction equipment to enter the site. The topsoil has been removed and soils currently on site are representative of much lower soil layers.

Land cover within the site consists of disturbed habitat. Disturbed habitats have been physically altered and are no longer recognizable as a native or naturalized vegetation community but continue to retain a soil substrate. Typically, vegetation of disturbed/agricultural areas is almost exclusively composed of non-native ruderal plant species that take advantage of disturbance and which removes the capability of providing viable natural habitat (Oberbauer et al. 2008). Plant species observed include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), Russian thistle (*Salsola tragus*), Johnson grass (*Sorghum halepense),* hairy sunflower (*Helianthus hirsutus*), juvenile tree of heaven (*Ailanthus altissima*), tumbleweed (*Salsola kali*), and telegraph weed (*Heterotheca grandiflora*).

The project site provides little habitat for wildlife species due to its disturbed nature, lack of native vegetation and high levels of surrounding human activity. Most wildlife was observed in adjacent areas or flying overhead. Species observed on during the survey included white-throated swift (*Aeronautes saxatalis*), red-tailed hawk (*Buteo jamaicensis*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), western kingbird (*Tyrannus verticalis*), mourning dove (*Zenaida macroura*), western fence lizard (*Sceloporus occidentalis*), and pocket gopher (*Thomomys* sp.).

a. *Would the project 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 Wildlife or U.S. Fish and Wildlife Service?*

The CNDDB/CNPS query results include 77 special-status plant species within five miles (9-quad for CNPS) of the project site. Special-status plant species typically have specialized habitat requirements, including plant community types, soils and elevational ranges. Of the 77 species, 74 are not expected to occur based on the project site's location and clear lack of suitable habitat (e.g., mountains, desert, elevational ranges). The project site does not contain suitable habitat for the three remaining species, which have no potential to occur on site, based on prior and ongoing disturbance at the site from disking, prevalence of non-native species, soil types on site, and isolation from larger stands of natural habitat. No special-status plant species were observed during the site reconnaissance survey. As a result, special-status plant species are not expected to occur on the site; therefore, impacts to special-status plant species would not occur.

The CNDDB query results include 29 special-status wildlife species within five miles of the project site. The potential for special-status wildlife species to occur on the site was assessed based on known distribution, habitat requirements, and existing site conditions. The site occurs near tracked occurrences of the federally endangered Delhi sands flower-loving fly (*Rhaphiomidas terminatus*), which occurs in dune habitat formed from Delhi sands. This soils type and habitat are not present on site, with soils consisting of Hanford sandy loam, zero to two percent slopes (HbA) and Tujunga loamy sand (TuB). The species does not have potential to occur. No special-status wildlife species were determined to have a moderate or high potential to occur on site and similarly none were detected within or immediately surrounding the survey area during the site reconnaissance survey. The lack of potential for special-status wildlife species occurrence is based on low habitat quality of the disturbed site, lack of native vegetation, isolation from other suitable habitat due to developed land uses surrounding the site, and the presence of traffic noise from adjacent streets.

One wildlife species from the database query was determined to have a low potential to occur on the site: burrowing owl (*Athene cunicularia*; BUOW), a CDFW Species of Special Concern (SSC). Low quality or marginal foraging and/or nesting habitat for the species is present on the project site. Burrows on site are limited to gopher burrows and are not suitable for BUOW. However, BUOW could potentially occur if burrows become established by small mammals such as California ground squirrel. The low habitat quality and the low potential for this species to occur are due to the site's isolation from other suitable habitat, the developed land uses surrounding the site, the high level of existing disturbance, and the presence of significant noise from adjacent streets and land uses, and the current lack of suitable size burrows which would likely deter individuals from long-term use of the site. No BUOW or sign (e.g., pellets or white wash) were observed during the reconnaissance survey.

The project proposes the removal of vegetation that may provide low quality habitat for BUOW. As such, the project would result in loss of such habitat, as well as potential injury or death to individuals if they are present at the time of construction. It should be noted that BUOW are not geographically restricted to the vicinity of the project site and the loss of low-quality habitat would not significantly affect the species. Direct impacts (e.g., injury or mortality) or indirect impacts (e.g., noise, dust) to BUOW would be significant. Even though BUOW has a low potential to occur on the project site, implementation of a pre-construction BUOW clearance survey is recommended to avoid potential impacts to BUOW. Given that other, regionally occurring special-status species are not expected to occur on the project site, and with the implementation of recommended pre-construction surveys, the proposed project would have a less-than-significant effect on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

As noted above, the project site could provide suitable nesting habitat for ground nesting avian species, such as killdeer (*Charadrius vociferus*). Bird nests and eggs are protected under the California Fish and Game Code (CFGC) Section 3503 and the Migratory Bird Treaty Act (MBTA). Direct impacts (e.g., injury or mortality) to nesting birds or indirect impacts (e.g., noise, dust) that disrupt nesting behavior and reproductive success would violate CFGC Section 3503 and 3503.5 and the MBTA.

Implementation of Mitigation Measure BIO-1 would require pre-construction burrowing owl surveys to reduce impacts to BUOW to less than significant and Mitigation Measure BIO-2 would require pre-construction nesting bird surveys to assure compliance with CFGC Sections 3503 and 3503.5, and the MBTA.

Mitigation Measures

BIO-1 Burrowing Owl Pre-construction Clearance Survey

A qualified wildlife biologist shall conduct a pre-construction survey of proposed impact areas to confirm presence/absence of burrowing owl (BUOW) individuals no more than 14 days prior to construction. The survey methodology will be consistent with the methods outlined in the California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (2012). If no active breeding or wintering owls are identified, no further mitigation is required.

If BUOW is detected onsite, the following mitigation measures shall be implemented in accordance with the *CDFW Staff Report on Burrowing Owl Mitigation* (2012):

- A qualified wildlife biologist shall be onsite during initial ground-disturbing activities in potential BUOW habitat identified throughout the habitat assessment.
- No ground-disturbing activities shall be permitted within a buffer no less than 200 meters (656 feet) from an active burrow, depending on the level of disturbance, unless the qualified biologist determines a reduced buffer would not adversely affect the burrowing owl(s).
- Occupied burrows shall not be disturbed during the nesting season (February 1 to August 31).
- During the nonbreeding (winter) season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 50 meters (165 feet) from the burrow, depending on whether the level of disturbance is low, and if the active burrow is not directly affected by the project activity. A smaller buffer may be established in consultation with CDFW. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be excluded from winter burrows according to recommendations made in the *Staff Report on Burrowing Owl Mitigation* (2012).

- Burrowing Owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in the CDFW St*aff Report on Burrowing Owl Mitigation* (2012). Additionally, if burrowing owls are found on site, a qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E of the *CDFW's Staff Report on Burrowing Owl Mitigation* for CDFW review and approval prior to the commencement of disturbance activities onsite.
- Burrowing Owls shall not be excluded from burrows until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in Appendix E of *CDFW's Staff Report on Burrowing Owl Mitigation.*
- Prior to passive relocation, compensatory mitigation at a ratio of 1:1 for lost breeding and/or wintering habitat shall be implemented on- or off-site, including permanent conservation and management of burrowing owl habitat through the recordation of a conservation easement, funding of a non-wasting endowment, and implementation of a Mitigation Land Management Plan based on the *CDFW's Staff Report on Burrowing Owl Mitigation* and CDFW guidance. Mitigation lands shall be identified through coordination with CDFW and on, adjacent, or proximate to the impact site where possible and where habitat is suitable to support BUOW.

  When a qualified biologist determines that BUOW are no longer occupying the Project site and passive relocation is complete, construction activities may begin. A final letter shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

BIO-2 Pre-construction Nesting Bird Surveys

Migratory or other common nesting birds, while not designated as special-status species, are protected by CFGC Sections 3503 and 3503.5 and the federal MBTA and may nest in ornamental trees, grass, bare ground, burrows/cavities, man-made structures and shrubs on site. Construction of the project thus has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and MBTA. The following measure is recommended to maintain compliance with the CFGC Section 3503 and 3503.5 and the MBTA with respect to nesting birds:

- If project activities take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions), nesting bird surveys shall be performed by a qualified biologist within three days prior to project activities to determine the presence/absence, location, and status of any active nests on site and within 100 feet of the site.
- If nesting birds are found on site, a construction buffer of appropriate size (as determined by the qualified biologist) shall be implemented around the active nests and demarcated with fencing or flagging. If ground/burrow nesting birds are identified, demarcation materials that will not provide perching habitat for predatory bird species shall be used. Nests shall be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is complete, and all the young have fledged and can survive independently of the nest. If project activities must occur within the buffer, they shall be conducted at a distance that will prevent project-related disturbances, as determined by the qualified biologist.
- If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Significance After Mitigation

Mitigation Measures BIO-1 and BIO-2 would ensure project construction impacts to BUOW and nesting birds are reduced through monitoring efforts to avoid such impacts. Incorporation of Mitigation Measures BIO-1 and BIO-2 would ensure project impacts are less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The entire project site is a disturbed parcel that is frequently subject to human disturbance, including disking. No natural habitat areas are present on the project site. Therefore, the project would not have a substantial adverse effect on any riparian habitat, or other sensitive natural community. The project would have no impact on riparian or sensitive communities, and no mitigation measures would be required.

NO IMPACT

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The entire project site is a parcel that is frequently subject to human activity including disking. A trench that was excavated when the parcel was originally disturbed occurs on the northern border of the parcel. This trench does not contain hydric soils, vegetation, or wetland hydrology. Therefore, the project would have no impact on wetlands since no wetlands occur on site, and no mitigation measures would be required.

NO IMPACT

d. Would the project 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?

The project site is located within a developed urban area and surrounded by urbanized uses on all sides. The entire project site is heavily disturbed and frequently subject to human activity including disking. The project site contains no natural habitat areas, nor does it provide connection to any natural habitat areas. The project would not interfere with the movement of any native wildlife species. Therefore, the project would have no impact on wildlife movement, and no mitigation measures would be required.

NO IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Rialto does not have a tree preservation policy, nor are there any other local policies or ordinances in place protecting biological resources. Based on the field reconnaissance survey completed of the project site, there are no significant trees present on the project site that would need to be removed or related to implement the project. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

f. Would the project 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 adopted Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional, or State habitat conservation plans apply to the project site. In addition, infill development and urban land use intensification are anticipated for the Foothill Specific Plan area, which includes the project site. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

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5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	■
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

Regulatory Setting

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the CRHR through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the CRHR. Properties can also be nominated to the CRHR by local governments, private organizations, or citizens. The evaluative criteria used by the CRHR for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places. For listing in the CRHR, a property must be eligible under one or more of the following criteria and retain sufficient integrity to convey its significance:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Rincon Consultants, Inc. prepared a Cultural Resources Letter Report for the project to evaluate project impacts to historical and archaeological resources. The Letter Report includes the results of a records search at the South Central Coastal Information Center, archival research, a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), and a pedestrian field survey. The following analysis is based on the Cultural Resources Letter Report, which is provided in full as Appendix C.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

On September 16, 2021, a search was completed of the California Historical Resources Information System at the South Central Coastal Information Center located at California State University, Fullerton. The search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius. The records search included a review of the National Register of Historic Places (NRHP), the CRHR, the California Historical Landmarks list, California Points of Historical Interest list, the Archaeological Determinations of Eligibility list, and the California Built Environment Resources Directory. The results of the records search identified 16 previously recorded historic-period cultural resources within a 0.5-mile radius of the project site. One of the resources (P-36-025613) is a historic property listed on the NRHP (Property ID 11000957). Because this resource has been determined eligible for listing on the NRHP, it is automatically included in the CRHR as a historical resource. P-36-025613 (Wigwam Village #7 site) is located at 2728 Foothill Boulevard, approximately 0.47 miles to the east of the project site. Given the distance from the project site to P-36-025613, the project will not introduce

visual or auditory intrusions that could indirectly impact the historical resource. No previously recorded cultural resources were documented within the project site and no previously conducted studies have been completed within the project site. Additionally, Rincon conducted a pedestrian field survey of the project site on September 20, 2021, which did not identify any previously unrecorded cultural resources. As no historical resources exist on the project site, the proposed project would have no impact.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Section 15064.5 of the *State CEQA Guidelines* defines significant archaeological resources as resources that meet the criteria for historical resources or resources that constitute unique archaeological resources. A project-related significant impact could occur if the proposed project would significantly affect archaeological resources that fall under either of these categories.

No significant archaeological resources have been previously recorded on or within a 0.5-mile of the project site. Even though the pedestrian survey of the project site did not identify any previously unrecorded archaeological resources within the project site, potential impacts to archaeological resources could occur in the unlikely event archaeological resources are unexpectedly encountered during proposed project construction. Should archaeological resources be unexpectedly discovered during project related construction, compliance with the following mitigation measure would reduce impacts to a less than significant level.

Mitigation Measures

With implementation of Mitigation Measure CUL-1, impacts pertaining to the potential discovery of previously unknown archaeological resources would be less than significant, as all work would be temporarily halted, and the archaeological resource would be assessed and evaluated consistent with all federal, state, and local guidelines.

CUL-1 Unanticipated Discovery of Cultural Resources

In the event cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the NRHP or CRHR, additional work such as data recovery excavation and/or Native American consultation to treat the find may be warranted to mitigate any significant impacts to cultural resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No known human remains have been documented within the project site or the immediate vicinity. While the project site is unlikely to contain human remains, the potential for the recovery of human remains during ground-disturbing activities is always a possibility. If human remains are unexpectedly encountered, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of

human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. Therefore, impacts to human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would use nonrenewable resources for construction and operation of the project. Natural resources that would be utilized by the project include petroleum-based fuels for vehicles and equipment, operational building energy usage, and operational water consumption. The anticipated use of these resources is detailed in the following subsections. As supported by the discussion below, the project would not create energy demand that would result in a significant environmental impact.

Construction Energy Demand

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod Version 2020.4.0 (Appendix B). As shown in Table 10, construction equipment, hauling and vendor trips, and worker trips would consume approximately 224,285 gallons of fuel over the project construction period. Of this total, construction equipment would consume an estimated 129,196 gallons of fuel; vendor and hauling trips would consume approximately 24,551 gallons of fuel; and worker trips would consume approximately 70,538 gallons of fuel. Appendix B includes energy calculations associated with project construction.

Table 10 Estimated Fuel Consumption during Construction

Fuel Type	Gallons of Fuel	MMBtu[4]
Diesel Fuel (Construction Equipment)[1]	129,196	16,468
Diesel Fuel (Vendor & Hauling Trips)[2]	24,551	3,129
Other Petroleum Fuel (Worker Trips)[3]	70,538	7,744
Total	**224,285**	**27,341**

[1] Fuel demand rate for construction equipment is derived from the total hours of operation, the equipment's horsepower, the equipment's load factor, and the equipment's fuel usage per horsepower per hour of operation, which are all taken from CalEEMod outputs (see Appendix B), and from compression-ignition engine brake-specific fuel consumptions factors for engines between 0 to 100 horsepower and greater than 100 horsepower (USEPA 2018). Fuel consumed for all construction equipment is assumed to be diesel fuel.

[2] Fuel demand rate for vendor trips (cut material imports) is derived from vendor trip number, vendor trip length, and vendor vehicle class from "Trips and VMT" Table contained in Section 3.0, *Construction Detail*, of the CalEEMod results (see Appendix B). The fuel economy for vendor trip vehicles is derived from the United States Department of Transportation (DOT 2018). Fuel consumed for all hauling trucks is assumed to be diesel fuel.

[3] The fuel economy for worker trip vehicles is derived from the DOT National Transportation Statistics (24 mpg) (DOT 2018). Fuel consumed for all worker trips is assumed to be gasoline fuel.

[4] CaRFG CA-GREET 2.0 fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for worker trips specified above (CARB 2015). Low-sulfur Diesel CA-GREET 2.0 fuel specification of 127,464 Btu/gallon used to identify conversion rate for fuel energy consumption for construction equipment specified above (CARB 2015). Due to rounding, numbers may not add up precisely to the totals indicated.

The construction energy estimates represent a conservative estimate because the construction equipment used in each phase of construction was assumed to be operating every day of construction. Construction equipment would be maintained to all applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is also reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operational Energy Demand

Operation of the project would contribute to area energy demand by consuming electricity, natural gas, and gasoline consumption. Natural gas and electricity would be used for heating and cooling systems, lighting, appliances, water use, and the overall operation of the project. Gasoline consumption would be attributed to the trips generated from people living on-site. The estimated number of average daily trips associated with the project is used to determine the energy consumption associated with fuel use from operation of the project. The majority of the fuel consumption would be from motor vehicles traveling to and from the project site. According to CalEEMod calculations (Appendix B), the project would result in approximately 3,010,531 annual VMT. This is based on the most conservative estimate of daily trip generation determined in the Traffic Analysis (TA) (Appendix H). Table 11 shows the project's estimated total annual fuel consumption using the estimated trip generation and VMT with the assumed vehicle fleet mix. One gallon of gasoline is equivalent to approximately 109,786 Btu, while one gallon of diesel is equivalent to approximately 127,460 Btu (United States Energy Information Administration [EIA] 2018). Appendix B includes energy calculations associated with project operation.

Table 11 Estimated Project Annual Transportation Energy Consumption

Vehicle Type[1]	Percent of Vehicle Trips[2]	Annual Vehicle Miles Traveled[3]	Average Fuel Economy (miles/gallon)[4]	Total Annual Fuel Consumption (gallons)	Total Fuel Consumption (MMBtu)[5]
Passenger Cars	54.2	1,651,008	24	76,045	8,349
Light/Medium Trucks	37.6	1,143,240	17.4	72,631	7,974
Heavy Trucks/Other	7.8	234,121	7.4	34,974	3,840
Motorcycles	0.4	12,162	43.9	306	34
Total	**100**	**3,040,531**	**–**	**183,956**	**20,197**

[1] Vehicle classes provided in CalEEMod do not correspond exactly to vehicle classes in DOT fuel consumption data, except for motorcycles. Therefore, it was assumed that passenger cars correspond to the light-duty, short-base vehicle class, light/medium trucks correspond to the light-duty long-base vehicle class, and heavy trucks/other correspond to the single unit, two-axle six-tire or more class.

[2] Percent of vehicle trips from Table 4.4 "Fleet Mix" in Air Quality and Greenhouse Gas Emissions Study, CalEEMod output (Appendix B).

[3] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in CalEEMod output (Appendix B).

[4] Average Fuel Economy: U.S. Department of Transportation 2018.

[5] CaRFG fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for vehicle classes specified above (CARB 2015).

Notes: Totals may not add up due to rounding.

As shown in Table 11, the project would consume approximately 183,956 gallons of fuel, or 20,197 MMBtu, each year for transportation uses from project operation under the most conservative estimate.

Project operation would consume approximately 0.97 GWh of electricity per year (Appendix B). The project's electricity demand would be served by Southern California Edison (SCE), which provided 85,275 GWh of electricity in 2018 (California Energy Commission [CEC] 2018a). The project's electricity demand would represent less than 0.001 percent of electricity provided by SCE. Therefore, SCE would have sufficient supplies for the project. Estimated natural gas consumption for the project would be 0.03 MMthm per year (Appendix B). The project's natural gas demand would be serviced by the Sothern California Gas Company (SoCalGas), which provided 5,156 MMthm per year in 2018 (CEC 2018b). The project's natural gas consumption would represent less than 0.001 percent of natural gas provided by SoCalGas; which would therefore have adequate supply to serve the project.

The project would be required to comply with all standards set in California Building Standards Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. The Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the Energy Commission. The California Green Building Standards (CALGreen) Code (CBC Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. Furthermore, the project would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SCE continues to increase to comply with State requirements through Senate Bill (SB) 100, which

requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

In conclusion, construction of the project would be temporary and typical of similar projects, and would not result in the wasteful, inefficient, or unnecessary consumption of energy. Operation of the project would consume fuel, natural gas, and electricity; however, the project would conform to the latest versions of the Building Energy Efficiency Standards and CALGreen Code, and would therefore not lead to wasteful, inefficient, or unnecessary consumption of energy resources. In addition, SCE and SoCal Gas have sufficient energy supplies to serve the project. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project is designed to comply with the performance levels and residential mandatory measures of the latest version of the Building Energy Efficiency Standards and CALGreen Code (Title 24, Parts 6 and 11; effective January 1, 2020), which would reduce energy consumption compared to standard building practices. Measures to meet these energy standards include low-flow plumbing fixtures, water-efficient irrigation systems, high-efficiency heating, ventilation, and air conditioning (HVAC) and hot water storage tank equipment, and lighting conservation features. Compliance with these regulations would ensure the proposed project would not conflict with adopted energy conservation plans. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. 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 direct or indirect 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?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	■	☐

A Geotechnical and Infiltration Evaluation was prepared for the proposed project by GeoTek, Inc. (2021). The report is included as Appendix D, and the conclusions and recommendation from the report are summarized herein.

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. *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?*
2. *Strong seismic ground shaking?*
3. *Seismic-related ground failure, including liquefaction?*
4. *Landslides?*

c. Would the project 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?

The project site is located within a seismically active region, though no active or potentially active fault is known to existing on-site nor is the project site within an Alquist-Priolo Earthquake Fault Zone (Appendix D). The closest known active fault is the San Jacinto fault, located about 1.1 miles to the northeast of the project site. The project site is also not located within a State of California Seismic Hazard Zone for earthquake-induced landslides (Appendix D).

Evidence of previous landslides or slope instabilities were not observed on the project site during field reconnaissance completed by GeoTek; the potential for landslides is therefore, considered negligible for the project (Appendix D). According to the San Bernardino County Geologic Hazard Maps, the project site is not located within an area that is designated as possessing a liquefaction hazard; and the potential for liquefaction at the project site is determined to be negligible based on depth to groundwater, which is greater than 200 feet below surface (Appendix D).

Furthermore, proposed structures would be constructed to comply with CBC seismic design criteria. Although structures may be damaged during earthquakes, adherence to the seismic design requirements would minimize property and structural damage. The CBC is intended to provide minimum requirements to prevent major structural failure and loss of life in seismic events. Therefore, the project would have a less than significant impact from seismic hazards, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

The project site is relatively flat, ranging between approximately 1,230 feet to 1,240 feet above mean sea level; and much of the city is developed and urbanized. Grading during project construction would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion. However, erosion and loss of topsoil would be controlled using standard erosion control practices during construction, such as compliance with CBC Division 70, *Grading, Excavations, and Fill*, which ensure implementation of appropriate measures during grading activities to reduce soil erosion.

The proposed project would be subject to regional and local regulations pertaining to construction activities. Development greater than one acre in size is required to comply with the provisions of the General Construction Activity Stormwater Permit adopted by the State Water Resources Control

Board (SWRCB), which would require preparation of a Stormwater Pollution Prevention Plan (SWPPP) under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and implementation of best management practices (BMPs) to limit the extent of eroded materials and stormwater runoff from a construction site. Compliance with CBC Chapter 70 standards and City requirements for a grading permit would reduce soil erosion impacts to a less than significant level. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

d. Would the project 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?

Boring logs were taken from size locations on the project site. According to the results of the laboratory testing performed on two samples of the near surface soils, near surface soils on the project site have a "very low" expansion potential in accordance with ASTM D 4829. Undocumented fill ranging from 6 to 8.5 feet below existing grade consisted of medium dense to very dense silty sand with trace gravel, and alluvium was encountered below undocumented fill to the maximum depth explored (GeoTek, Inc. 2021). No additional potential soil stability hazards were identified based on existing soil conditions. The project would be required to conform to the CBC, City regulations, other applicable construction and design standards, and standard engineering practices. Therefore, the project would have a less than significant impact from expansive soils, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

e. Would the project 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?

The proposed project does not include the implementation of septic tanks or alternative disposal systems. The city and project site are served by a sanitary sewer system provided by Rialto Water Services (RWS). The project would connect to existing systems and would not require the use of septic tanks. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As previously stated, the entire survey area is a historically graded site, soils have been completely disturbed and vegetation mowed. The site was previously prepared for development evidenced by excavated soils including slopes for construction equipment to enter the site. The topsoil has been removed and soils currently on site are representative of much lower soil layers.

Therefore, due to the historical disturbance to the site, impacts to paleontological resources are considered less than significant.

LESS THAN SIGNIFICANT IMPACT

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	■

Greenhouse Gas Overview

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, CH_4 has a GWP of 28, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis. N_2O has a global warming potential of 265 (Appendix B).

Greenhouse Gas Emissions Inventory

California

Based on CARB's California Greenhouse Gas Inventory for 2000 2018, California produced 425 million metric tons of carbon dioxide equivalent (MMT CO2e) in 2018. The largest source of GHGs in California is transportation, which generates 40 percent of the State's total GHG emissions. Emissions from the electricity sector account for approximately 15 percent of the State's total GHG emissions. California emissions are due in part to its large size and large population compared to other states. However, per capita emissions in California have dropped from a 2001 peak of 14.0 tonnes per person to 10.7 tonnes per person in 2018, a 24 percent decrease; while the carbon intensity of the State's economy decreased by 43 percent, and gross domestic product increased by 59 percent during the same time period (CARB 2020).

Local

The Rialto General Plan does not have a specific element aimed at reducing GHG emissions, but does includes goals, objectives, or policies specific to reducing GHG emissions throughout the plan. The relevant goals and their respective objectives from the Land Use Element and the Circulation Chapter of the Rialto General Plan would also serve to reduce GHG emissions (Rialto 2010a):

Goal 2-1 Revitalize and enhance the Foothill Boulevard Corridor into a place that supports economic development and creates a sense of place and identity through the use of appropriate streetscape design inspired by the Rialto Bridge.

Policy 2-1.1 Provide new opportunities along the Foothill Boulevard Corridor for mixed-use residential, retail, and commercial uses.

Policy 2-1.3 Require that properties fronting Foothill Boulevard physically connect to each other to create continual pedestrian connectivity along the corridor. Provide pedestrian-friendly amenities such as shaded walking areas, pedestrian-scale architecture, and commercial buildings with pedestrian street entries.

Goal 2-17 Provide high-quality and environmentally sustainable landscaping.

Policy 2-17.3 Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.

Goal 2-29 Conserve water resources.

Policy 2-29.1 Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.

Goal 2-30 Incorporate green building and other sustainable building practices into development projects.

Policy 2-30.2 Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.

Goal 2-31 Conserve energy resources.

Policy 2-31.1 Require the incorporation of energy conservation features into the design of all new construction and site development activities.

Goal 2-34 Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction.

Policy 2-34.2 Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills.

Policy 2-34.3 Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.

Goal 2-35 Reduce air pollution emissions from both mobile and stationary sources in the City.

Policy 2-35.2 Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.

Goal 2-38 Mitigate against climate change.

Policy 2-38.1 Consult with State agencies, SCAG, and the San Bernardino Associated Governments (SANBAG) to implement AB32 and SB375 by utilizing incentives to facilitate infill and transit-oriented development.

Policy 2-38.2 Encourage development of transit-oriented and infill development, and encourage a mix of uses that foster walking and alternative transportation in Downtown and along Foothill Boulevard.

Policy 2-38.3 Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).

Goal 4-8 Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City.

Policy 4-8.5 Require major developments to include bicycle storage facilities, including bicycle racks and lockers.

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.

Policy 4-9.2 Require sidewalks and parkways on all streets in new development.

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.

Project-specific Efficiency Threshold

For the proposed project, a 2030 efficiency threshold was calculated based on the year 2030 GHG emission levels for Rialto that would be consistent with the State's 2030 target. This locally appropriate, project-specific quantitative threshold is derived, in part, from the City's baseline 2008 GHG emissions inventory in line with the CARB's recommendations in the 2008 Climate Change Scoping Plan and the 2017 Scoping Plan (CARB 2008, 2017). Consistent with the legal guidance provided in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the City's 2008 baseline GHG emissions inventory was used to calculate a locally-appropriate, evidence-based, project-specific threshold consistent with the State's 2030 target. Accordingly, the threshold established to analyze the proposed project is a locally-applicable, project-specific threshold, as opposed to a threshold for general use.

The San Bernardino Council of Governments (formerly known as the San Bernardino Associated Governments) completed a 2008 baseline GHG emissions inventory for Rialto that calculated communitywide emissions of 676,731 MT of CO_2e per year. However, because the proposed project consists solely of residential land uses, only those portions of the 2008 baseline inventory associated

with residential land uses are appropriate to use in developing a project-specific threshold. Therefore, the 2008 baseline inventory was adjusted to remove emissions associated with nonresidential energy usage, stationary sources, and agriculture and to proportionally allocate a share of the emissions associated with transportation, off-road equipment, solid waste, wastewater treatment, water transport/distribution/treatment, and sulfur hexafluoride from electricity combustion to residential land uses based on the 2008 service population (residents + employees) of Rialto. Table 12 summarizes the 2008 baseline GHG emissions inventory and details how the inventory was adjusted to calculate the proportion of communitywide GHG emissions attributed to residential land uses. As shown therein, approximately 419,763 MT of CO_2e per year of the 2008 baseline inventory is attributed to residential land uses.

The total 2008 baseline GHG emissions attributed to residential land uses were then used to calculate a project-specific GHG emissions threshold for year 2030 based on the State's GHG emission reduction targets under AB 32 and SB 32. AB 32 set a statewide target of reducing GHG emissions to 1990 levels by 2020. Therefore, for the City of Rialto to be consistent with AB 32, annual GHG emissions levels from residential land uses would need to have been reduced by 15 percent below 2005 levels by 2020 to approximately 356,799 MT of CO_2e per year.[2] In addition, the State set a statewide GHG emission reduction target of 40 percent below 1990 levels in SB 32. Therefore, annual GHG emissions levels from residential land uses would need to be reduced by 40 percent below 1990 levels to approximately 214,079 MT of CO_2e per year to be consistent with the State's 2030 target. The 2030 project-specific residential efficiency threshold can thus be calculated by dividing the total communitywide GHG emissions target for residential land uses by the communitywide residential population for year 2030. The City's 2030 residential population is forecast to be approximately 119,193 persons (San Bernardino Council of Governments 2021). Therefore, the 2030 locally-appropriate, project-specific threshold would be approximately 1.8 MT of CO_2e per resident per year (see Table 13).

[2] A 2020 GHG emissions inventory has not been completed for Rialto; therefore, it is not known if existing communitywide GHG emissions have sufficiently declined to achieve this level. However, whether existing communitywide GHG emissions have been reduced by 15 percent below baseline 2010 levels does not affect the calculation of the threshold of significance because the threshold is calculated using the baseline 2010 GHG emissions inventory and the State's targets, which remain the same regardless of the current state of communitywide GHG emissions.

Table 12 City of Rialto Baseline Inventory – 2008 (Adjusted for Residential Land Uses)

Source	2008 Total (MT of CO_2e)[1]	Per Service Person (MT of CO_2e)[2, 3]	Total Attributed to Residential Land Uses (MT of CO_2e)[4]
Residential Natural Gas	58,722	No Adjustment Needed – Residential Only	58,722
Commercial/ Industrial Natural Gas	31,838	N/A	N/A
Residential Electricity	55,411	No Adjustment Needed – Residential Only	55,411
Commercial/Industrial Electricity	86,255	N/A	N/A
Stationary Sources	67,952	N/A	N/A
Light/Medium-Duty Vehicles	260,057	2.14	211,212
Heavy-Duty Vehicles	41,945	0.34	34,067
Off-Road Equipment	40,061	0.33	32,537
Agriculture	245	N/A	N/A
Solid Waste Management	14,269	0.12	11,589
Wastewater Treatment	4,001	0.03	3,250
Water Transport, Distribution, and Treatment	14,297	0.12	11,612
Sulfur Hexafluoride from Electricity	1,678	0.01	1,363
Total Emissions	**676,731**	**--**	**419,763**

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] Source: San Bernardino Council of Governments 2014

[2] Based on a citywide 2008 service population for Rialto of 121,800 service persons (98,923 residents and 22,877 jobs) (San Bernardino Council of Governments 2014)

[3] Calculations assume emissions from each sector are distributed equally among each resident and employee in the city.

[4] Based on a citywide 2008 population of 98,923 residents for Rialto (San Bernardino Council of Governments 2014).

Table 13 Locally Applicable Project-Specific 2030 Efficiency Threshold

Target Year	Value
2008 Baseline Levels[1]	419,763 MT of CO_2e/year
2020 Target (AB 32)[2]	356,799 MT of CO_2e/year
2030 Target (SB 32)[3]	214,079 MT of CO_2e/year
2030 Residential Population[4]	119,193 persons
2030 Project-Specific Efficiency Threshold	**1.80 MT of CO_2e per resident per year**

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] 2008 emission levels from project-applicable sectors (see Table 12)

[2] AB 32 sets a target of reducing GHG emissions to 1990 levels (i.e., 15 percent below 2008 levels) by 2020.

[3] SB 32 sets a target of reducing GHG emissions 40 percent below 1990 levels by 2030.

[4] Source: San Bernardino Council of Governments 2021

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction and operation of the proposed project would generate GHG emissions. This analysis considers the combined impact of GHG emissions from both construction and operation. Calculations of CO_2, methane, and nitrous oxide emissions are provided to identify the magnitude of potential project effects.

Project construction activities would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project sites and heavy trucks to transport building materials and soil export. As shown in Table 14, construction activity associated with the project would generate an estimated 1,865 MT of CO_2e. When amortized over a 30-year period, construction of the project would generate about 62 MT of CO_2e per year.

Table 14 Estimated Construction GHG Emissions

Year	Emissions (MT of CO_2e)
2022	536
2023	754
2024	575
Total	**1,865**
Amortized over 30 years	**62 MT per year**

MT = metric tons; CO_2e = carbon dioxide equivalents
See Appendix B for CalEEMod results.

Operation of the proposed project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Table 15 summarizes annual operational emissions and combines the construction and operational GHG emissions associated with the proposed project to calculate total annual emissions. As shown therein, the project would generate approximately 1,426 MT of CO_2e per year, or 1.76 MT of CO_2e per resident, which would not exceed the threshold of 1.80 MT of CO_2e per resident. Therefore, project impacts would be less than significant, and no mitigation measures would be required.

Table 15 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e)
Construction[1]	62
Area	48
Energy	187
Mobile	1,026
Solid Waste	47
Water	56
Total Emissions	**1,426**
Service Population (Residents)	808
Emissions Per Service Person	**1.76**
Locally-Applicable, Project-Specific Efficiency Threshold (per Service Person)	1.80
Threshold Exceeded?	No

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] Construction emissions were amortized over a 30-year period in accordance with SCAQMD recommendations (SCAQMD 2008b). See Appendix B for CalEEMod results.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Several plans and policies have been adopted to reduce GHG emissions in the southern California region, including the State's 2017 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and local policies contained in the City's General Plan. The proposed project's consistency with these plans is discussed in the following subsections. As discussed therein, the proposed project would not conflict with plans and policies aimed at reducing GHG emissions. The project would have no significant impacts, and no mitigation measures would be required.

2017 Scoping Plan

The principal state plans and policies are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use, energy demand, and vehicle miles traveled (VMT); maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. The project would be served by Southern California Edison, which is required to increase its renewable energy procurement in accordance with SB 100 targets. The project would be

located in an area well-served by transit and within walking and biking distance of several commercial, institutional, and recreational destinations, which would reduce future residents' VMT and associated fossil fuel usage. Furthermore, the project would be required to comply with State recycling requirements for multi-family residential land uses set forth in AB 341, which would maximize the project's recycling and solid waste diversion. Therefore, the project would be consistent with the 2017 Scoping Plan.

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The SCAG 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars in the SCAG region by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2040 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The project's consistency with the 2020-2045 RTP/SCS is discussed in Table 16. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 16 Project Consistency with Applicable SCAG RTP/SCS Strategies

Reduction Strategy	Project Consistency
Focus Growth Near Destinations & Mobility Options ▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies to promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Consistent.** The proposed project is an infill development that would increase residential density within a High Quality Transit Area (HQTA). The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus Route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line. Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Therefore, the project focuses growth near destinations and mobility options.

Reduction Strategy	Project Consistency
Promote Diverse Housing Choices ▪ Preserve and rehabilitate affordable housing and prevent displacement ▪ Identify funding opportunities for new workforce and affordable housing development ▪ Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply ▪ Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of GHGs	**Consistent.** The project site is currently undeveloped; therefore, the project would not result in the displacement of existing affordable housing.
Leverage Technology Innovations ▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space ▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments ▪ Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Consistent.** The proposed project would be required to comply with State and local regulations, including the California Building Energy Efficiency Standards and CALGreen, related to the provision of electric vehicle supply equipment for parking spaces and the installation of photovoltaic solar panels on all project buildings that generate an amount of electricity equal to expected electricity usage. Therefore, the project would leverage technology innovations.
Support Implementation of Sustainability Policies ▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions ▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations ▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space ▪ Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies ▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region ▪ Continue to support long range planning efforts by local jurisdictions ▪ Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Consistent.** The project would be consistent with the Rialto General Plan (Table 17) and would be constructed in accordance with the California Building Energy Efficiency Standards and CALGreen. Therefore, the project would support implementation of sustainable policies.
Promote a Green Region	**Consistent.** The project is an infill development project that would involve construction of residential uses in an

Reduction Strategy	Project Consistency
▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards ▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration ▪ Integrate local food production into the regional landscape ▪ Promote more resource efficient development focused on conservation, recycling and reclamation ▪ Preserve, enhance and restore regional wildlife connectivity ▪ Reduce consumption of resource areas, including agricultural land ▪ Identify ways to improve access to public park space	urbanized area and would therefore not interfere with regional wildlife connectivity or convert agricultural land. The project would be required to install photovoltaic solar panels on all buildings that generate an amount of electricity equal to expected electricity usage in accordance with the California Building Energy Efficiency Standards. Therefore, the project would support development of a green region.

Source: SCAG 2020

Rialto General Plan

Table 17 summarizes the project's consistency with the Rialto General Plan (2010). As discussed therein, the project would be consistent with the actions and measures contained in these policies.

Table 17 Project Consistency with Applicable Rialto General Plan Policies

Goal	Project Consistency
Land Use Element	
Goal 2-1: Revitalize and enhance the Foothill Boulevard Corridor into a place that supports economic development and creates a sense of place and identity through the use of appropriate streetscape design inspired by the Rialto Bridge. ▪ **Policy 2-1.1**: Provide new opportunities along the Foothill Boulevard Corridor for mixed-use residential, retail, and commercial uses. ▪ **Policy 2-1.3**: Require that properties fronting Foothill Boulevard physically connect to each other to create continual pedestrian connectivity along the corridor. Provide pedestrian-friendly amenities such as shaded walking areas, pedestrian-scale architecture, and commercial buildings with pedestrian street entries.	**Consistent.** The project would introduce new residential land uses along Foothill Boulevard in an area primarily developed with commercial uses, which would contribute to development of a mixed-use corridor. In addition, the project would include a sidewalk along the Foothill Boulevard frontage to connect to create pedestrian connectivity with adjacent properties and would include landscaping along the Foothill Boulevard frontage that would provide shade to pedestrians.
Goal 2-17: Provide high-quality and environmentally sustainable landscaping. ▪ **Policy 2-17.3:** Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	**Consistent.** Pursuant to CALGreen, the project would be required to install water-efficient irrigation systems that are compliant with the State's Model Water Efficient Landscape Ordinance. According to the project site plans (Appendix A), a variety of drought-tolerant trees and shrubs with low to moderate water needs would be planted on the project site around propose buildings and parking areas to provide shade cover.

Goal	Project Consistency
Goal 2-29: Conserve water resources. ▪ **Policy 2-29.1:** Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.	**Consistent.** Pursuant to CALGreen, the project would be required to install water-efficient irrigation systems that are compliant with the State's Model Water Efficient Landscape Ordinance.
Goal 2-30: Incorporate green building and other sustainable building practices into development projects. ▪ **Policy 2-30.2:** Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.	**Consistent.** The project would be required to be constructed in accordance with the latest iteration of the California Building Energy Efficiency Standards and CALGreen.
Goal 2-31: Conserve energy resources. ▪ **Policy 2-31.1**: Require the incorporation of energy conservation features into the design of all new construction and site development activities.	**Consistent.** The project would be required to be constructed in accordance with the latest iteration of the California Building Energy Efficiency Standards and would include features such as energy-efficient appliances and rooftop solar PV panels.
Goal 2-34: Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction. ▪ **Policy 2-34.2:** Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills. ▪ **Policy 2-34.3:** Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.	**Consistent.** The project would be required to provide recycling services to future residents in accordance with the requirements of AB 341. In addition, the project would be required to comply with the minimum 65-percent diversion rate for construction and demolition waste specified in CALGreen during construction activities.
Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City. ▪ **Policy 2-35.2:** Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.	**Consistent.** The proposed project is an infill development that would increase residential density within a HQTA. The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus Route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Furthermore, the project would be required to comply with the bicycle parking standards contained in RMC Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.

Goal	Project Consistency
Goal 2-38: Mitigate against climate change. ▪ **Policy 2-38.1:** Consult with State agencies, SCAG, and the San Bernardino Associated Governments (SANBAG) to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development. ▪ **Policy 2-38.2:** Encourage development of transit-oriented and infill development, and encourage a mix of uses that foster walking and alternative transportation in Downtown and along Foothill Boulevard. ▪ **Policy 2-38.3**: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).	**Consistent.** The proposed project is an infill development that would increase residential density within a HQTA. The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus Route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Furthermore, the project would be required to comply with the bicycle parking standards contained in RMC Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.
Circulation Chapter	
Goal 4-8: Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City. ▪ **Policy 4-8.5:** Require major developments to include bicycle storage facilities, including bicycle racks and lockers.	**Consistent.** The project would be required to comply with the bicycle parking standards contained in RMC Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.
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. ▪ **Policy 4-9.2**: Require sidewalks and parkways on all streets in new development. ▪ **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.** The project would include pedestrian paths throughout the project site and a sidewalk along the Foothill Boulevard frontage. In addition, the project would be required to comply with the bicycle parking standards contained in RMC Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.

Source: Rialto 2010a

NO IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material 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 in 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?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

A Phase I and Limited Phase II Environmental Site Assessment (Phase I & II ESA) was prepared for the proposed project by GeoTek, Inc. (2021). The report is included as Appendix E, and the conclusions and recommendation from the report are summarized herein.

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project 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. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The project entails infill development of 204 multi-family residential units on a site that is currently vacant. Construction activities would not generate hazardous waste materials (such as asbestos or lead) from demolition since the project site is vacant. Limited quantities of hazardous materials (such as solvents and low VOC paints or finishes) may be used during building construction. However, the transportation, use, storage, and disposal of construction materials and equipment would be compliant with applicable federal, State, and local regulations, standards, and guidelines.

Proposed residential uses would not emit or handle hazardous materials beyond typical household and landscape waste and materials, and the project would not create a hazard to the public through transportation of hazardous materials.

There are no schools within a one-quarter mile radius of the project site. The K-12 schools located nearest to the project site include the following:

- **Casey Elementary School** (219 North Eucalyptus Avenue), approximately 0.4 mile southeast of the project site
- **Frisbie Middle School** (1442 North Eucalyptus Avenue), approximately 1.4 miles north of the project site
- **Eisenhower Senior High School** (1321 North Lilac Avenue), approximately 2.4 miles northwest of the project site

Therefore, the project would have a less than significant impact on the generation, storage, and transport of hazardous materials and on schools; and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

The project site supported agricultural uses since 1930 through the mid- to late-1950s, and has been vacant since around 2009 (GeoTek 2021b). An environmental database records search was completed within a 0.5 to one mile radius from the project site, which included USEPA) National Priorities List, superfund sites, and Resources Conservation and Recovery Act (RCRA) at the federal level, and EnviroStor and California Environmental Protection Agency (CalEPA) underground storage tanks at the State level (GeoTek 2021b). The project site and adjacent properties were not listed on any databases as containing hazards. In addition, the project site and vicinity are not contaminated by nor

under statewide investigative orders for per- and polyfluoroalkyl substances testing in drinking and non-drinking water sources (SWRCB 2021).

Though the project site and adjacent properties were not listed on any environmental databases as hazardous sites of concern, a limited Phase II ESA was completed for the project site. The limited Phase II ESA included the collection of eight composite soil samples from a depth of up to approximately six inches below the existing ground surface, which were then analyzed for organo-chlorinated pesticides (OCP) that may have remained from previous agricultural uses. Though measurable quantities of an OCP constituent (dieldrin) was detected in one of the samples (at 2.3 micrograms per kilogram), this level was below the USEPA's screening level threshold (34 micrograms per kilogram). Therefore, no additional investigation is necessary at the project site for OCP contamination in soils based on historic agricultural uses (GeoTek 2021b).

The Phase I & II ESA concludes there is no evidence of a recognized environmental condition or concern with the project site, and no further investigation is recommended. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

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?

There are no existing public or private airstrips in the city. The closest airport to the project site is the San Bernardino International Airport, located approximately 6.6 miles east from the project site. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would increase traffic around the project site and vicinity, due to the addition of approximately 808 residents. However, the project would not result in any street closures that could impede emergency access or evacuation during project construction or occupancy. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project site is within an urbanized area; as such, there are no wildlands in the vicinity of the project site. The project site and vicinity are not identified as a Very High Fire Hazard Severity Zone by CALFIRE (CalOES 2015). Implementation of the project would not significantly increase exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, the project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

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10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	■
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 off-site;	☐	☐	■	☐
(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?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	■
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	■

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The proposed project would disturb 8.06 acres and is therefore, subject to NPDES permit requirements. Construction activities covered under the State's General Construction permit include removal of vegetation, grading, excavating, or any other activities that cause disturbance to one or more acres. The General Construction permit requires recipients to reduce or eliminate non-storm water discharges into stormwater systems, and to and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of the SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of stormwater associated with construction activities; and 2) identify, construct, and implement stormwater pollution control measures to reduce pollutants in stormwater discharges from the construction site during and after construction.

The NPDES also requires a Water Quality Management Plan (WQMP). A project-specific Preliminary WQMP has been completed by Huitt-Zollars, Inc. (Appendix F), and submitted for review and approval by the City of Rialto. The WQMP was prepared to meet NPDES Area Wide Stormwater Program requirements. The Preliminary WQMP identifies specific source control and structural BMPs that would be implemented during project construction and operation. The source control and structural BMPs identified for the project aim to minimize urban runoff from the project site, minimize the impervious footprint of the proposed site plan through incorporation of landscaped areas, and to conserve natural areas where possible (Appendix F).

Implementation of the project would increase stormwater runoff volume due to the development of impervious surfaces. The project entails site grading for runoff to be captured in on-site catch basins, which would be sized to capture all on-site runoff and convey it to the proposed on-site storm drain infrastructure and underground infiltration chambers (Appendix F). Moreover, mandatory compliance with the project's WQMP as approved by the City, in addition to compliance with NPDES permit requirements, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged from the project site. Therefore, implementation of the project would not violate any water quality standards or waste discharge requirements; the project would have a less than significant impact on water quality, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

According to the Geotechnical and Infiltration Evaluation (Appendix D) prepared for the project site, groundwater was not encountered within any of the recent borings sampled by GeoTek, which extended to a maximum depth of about 50 feet below grade. A review of groundwater depth information noted on the California Department of Water Resources Water Data Library website indicates a depth to groundwater greater than 200 feet below grade within existing wells in the site vicinity. Therefore, groundwater is determined to not exist on the project site.

Nearly all of Rialto's water sources come from local surface water and groundwater supplies. However, the project would not include groundwater wells that would impact the supply or recharge rate of any nearby existing wells. The project would have no impact on groundwater resources, and no mitigation measures would be required.

NO IMPACT

c.(i) Would the project 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 result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project 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 that would 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?

c.(iv) Would the project 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 impede or redirect flood flows?

A project-specific WQMP was prepared by Huitt-Zollars, Inc. (Appendix F). The project site is located within a disturbed area, adjacent to existing residential and commercial uses. The project site is vacant, relatively flat with about a five-foot elevation differential between the highest and lowest points on-site, and the site generally drains southeasterly toward Foothill Boulevard. An earthen ditch borders the property on the northern and eastern sides of the project site to presumably prevent offsite runoff from flowing onto the property. The ditch remains fairly level with no inlets indicating that stormwater is detained in the ditch. The remaining runoff sheetflows off the project site onto Foothill Boulevard before being conveyed as streetflow eastward toward the Rialto Channel (Appendix F).

The proposed residential use would not generate substantial sources of polluted runoff. The project, as designed, would increase the amount of impervious surface on the project site due to the proposed building footprints, surface parking spaces, and pedestrian and vehicle circulation pathways. The project also includes landscaped and common open space areas throughout the site. Project construction activities would implement BMPs to prevent substantial erosion or siltation on- or off-site, and the project site would be fully developed with no bare dirt left exposed (Appendix A and Appendix F). However, the project would generate a higher peak stormwater runoff flowrate than the existing condition of the site. Therefore, the project includes the installation of storm drain infrastructure and underground infiltration chambers on project site.

Infiltration basins are designed to detain and infiltrate the runoff volume from the water quality design storm (e.g., the 85th percentile 24-hour event) within a duration time set by local vector control regulations. As designed, particles and gross pollutants settle out to the bottom of the proposed infiltration basins and other pollutants would be filtered within the native soil separating the invert of the basin and the water table. Incidental evapotranspiration may also occur. Pursuant to the MS4 permit, the infiltration basin is designed to contain a “water quality pool” sized to meet the maximized stormwater capture volume for the project site and designed to drain in 48 hours (Appendix F). (In areas where native infiltration rates do not allow for a drawdown time under 48 hours, the San Bernardino County Technical Guidance Document [TGD] allows for a drawdown time of 96 hours applied to infiltration facilities; which is determined by local vector control regulations.)

With implementation of the proposed stormwater infiltration basin system, the project would not alter existing drainage patterns in a manner that would result in erosion or flooding, nor increase the rate or amount of stormwater runoff to exceed the existing or planned drainage system capacity. The proposed residential use would not generate a substantial amount of polluted runoff. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located approximately 40 miles east of the Pacific Ocean; therefore, there are no tsunami hazards due to the inland location of the project site. The project site is also relatively flat with no large bodies of water in the immediate vicinity and is not located in a flood zone; therefore, flood hazards and seiches would not occur (CalOES 2015). The proposed residential use would not generate hazardous pollutants that could be released due to project inundation. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Mandatory compliance with the project's WQMP, in addition to compliance with NPDES Permit requirements, would ensure the project does not conflict with nor obstruct implementation of water quality control plans. As previously discussed, the project would not generate pollutants based on proposed residential uses and would not impact stormwater quality or groundwater supplies and recharge. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
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?	☐	☐	☐	■

a. Would the project physically divide an established community?

Projects that are typically considered to have the potential to divide an established community include the construction of a new freeways, highways, or roads, or other uses that physically separate an existing or established neighborhood. The proposed project does not include construction of such roadway infrastructures or other off-site improvements that would be located between the project site and existing neighborhoods. The project site is located within the Foothill Boulevard Specific Plan area and the proposed multi-family residential use is an allowed use. The project site is adjacent to existing single- and multi-family residential uses and commercial uses; and the proposed multi-family residential use would be compatible with existing uses in the vicinity of the project site. The proposed buildings would generally blend in with adjacent existing uses and would not physically divide an established community. The project site is vacant with no existing structures or roads on-site. Proposed development of the 204 residential units would include the provision of on-site pedestrian and vehicle circulation pathways, which would not alter the existing roadway off-site. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

b. Would the project 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?

The City of Rialto General Plan designates the project site as Specific Plan Overlay, within the Foothill Boulevard Specific Plan (Specific Plan) area. According to the Specific Plan, the project site is designated as Residential-Mixed Use (R-MU) within the Foothill Boulevard Specific Plan zone. The R-MU district is intended to focus on higher density residential uses, with some less-intense commercial uses. The project site is adjacent to existing residential and commercial uses, and the project would not introduce new land uses that do not already exist in the city. The proposed multi-family residential use would intensify permitted uses for the site, and the project would be consistent with the vision of the R-MU district and Foothill Boulevard Specific Plan.

The proposed project requires 459 parking spaces (or 2.25 spaces per dwelling unit) pursuant to RMC Section 18.58.060, which specifies minimum parking spaces for residential uses. However, the

project proposes a parking reduction program that would provide a total of 367 off-street parking spaces available to the residents of the proposed204 units; or a total parking ratio of 1.8 spaces per dwelling unit. The Institute of Transportation Engineers parking supply survey determined that weekday peak parking demand for multifamily developments was approximately 1.3 spaces per unit, while actual supply was approximately 1.7 spaces per unit; both of which are lower parking space ratios than the City's Municipal Code parking requirements (Appendix H). RMC Section 18.58.020(k) states that the City's Planning Commission may approve a parking reduction variance permit request upon satisfaction of the following conditions:

1. Adequate off-street parking will be provided for the proposed use: Nearly half of the proposed residential units (46 percent) would be one-bedroom units, most likely inhabited by one resident per unit. Combined with the existing trend toward working from home, fewer vehicles per household were considered a reasonable shift for the parking reduction. Therefore, the parking reduction would provide adequate off-street parking capacity for the proposed project.
2. Significant environmental impacts will not be caused by the reduction: The proposed parking reduction would not have significant environmental impacts since fewer cars would be owned and driven by project residents, which would encourage residents to use alternative transportation modes, such as but not limited to public transit, car-sharing, and electric bicycles and scooters.
3. Traffic safety and pedestrian safety will be enhanced by the reduction: Fewer cars would be present on the project site, which would reduce the potential and occurrence of vehicle-related incidents. Additionally, a professional property management company be present on-site 24-hours with the capacity to manage and enforce resident and visitor parking rules within the development via issuing parking permits and monitor assigned off-street parking spaces. Such monitoring and parking space assignment/enforcement would further reduce the amount of on-site driving since residents and visitors would not need to drive around to look for parking.

For the reasons stated above and analyzed in the project Traffic Analysis (Appendix H), the proposed parking reduction would provide adequate off-street parking capacity for the project and proposed residential use. Therefore, the proposed parking reduction meets the requirements to receive a variance permit pursuant to RMC Section 18.58.020(k).

The City's General Plan and Specific Plan have policies that apply to the project. A discussion of project consistency with selected policies follows. Table 18 provides project consistency analysis according to General Plan policies. Table 19 provides project consistency analysis according to Foothill Boulevard Specific Plan standards.

Table 18 Consistency with Rialto General Plan Policies

Rialto General Goal or Policy	Analysis
Land Use, Community Design, Open Space and Conservation Elements	
Policy 2-1.3. Require the properties fronting Foothill Boulevard physically connect to each other to create continual pedestrian connectivity along the corridor. Provide pedestrian-friendly amenities such as shaded walking areas, pedestrian-scale architecture, and commercial buildings with pedestrian street entries	**Consistent.** Foothill Boulevard forms the southern boundary of the project site and frontage. The project includes the construction of paved sidewalks along the portion of Foothill Boulevard fronting the project site. The newly constructed sidewalk would connect with existing sidewalks on Foothill Boulevard to provide pedestrian connectivity along the corridor. Therefore, the project would be consistent with Policy 2-1.3.
Policy 2-11.2. Provide and maintain street trees and parkway landscaping within the public right-of-way for developed properties within Rialto. Require private development to do the same as per City design regulations. **Policy 2-11.4.** Incorporate street trees and other landscape treatments along corridors to provide sufficient shade canopy and promote pedestrian comfort.	**Consistent.** The project includes construction of paved sidewalks along the portion of Foothill Boulevard fronting the project site. The newly constructed sidewalk would include street trees to provide shade for pedestrians traversing along Foothill Boulevard. Therefore, the project would be consistent with Policy 2-11.2 and Policy 2-11.4.
Policy 2-12.5. Maximize potential pedestrian connections through the use of highly visible gateways, walkways, and directional signs and the installation of traffic-calming devices where appropriate.	**Consistent.** The portion of Foothill Boulevard fronting the project site is currently unpaved and does not contain any planters or street trees. The project includes construction of paved sidewalks with street trees along the portion of Foothill Boulevard fronting the project site. The newly constructed sidewalk would connect with existing sidewalks on Foothill Boulevard to provide pedestrian connectivity along the corridor. Therefore, the project would be consistent with Policy 2-12.5.
Policy 2-16.1. Require new development and construction to exhibit a high level of quality architectural design to emphasize community uniqueness, individuality, and historical references.	**Consistent.** The proposed project plans (Appendix A) include renderings of the proposed buildings, which would be composed of neutral colored stucco (whites and tans) accented with brick, wrought iron, and tile roofing. The general aesthetic of the proposed buildings is Spanish Revival with clean, modern lines typical of newer developments throughout Southern California and the city. Therefore, the project would be consistent with Policy 2-16.1.
Policy 2-16.4. Discourage the design of boxy structures; emphasize articulation of the front façade and the horizontal plane with multi-story structures.	**Consistent.** The proposed project plans (Appendix A) include renderings of the proposed buildings, which show articulated front facades, strategically placed to provide shade cover and privacy for balconies included with each unit; as well as shade cover for staircases. Therefore, the project would be consistent with Policy 2-16.4.
Policy 2-16.5. Require developers to vary building and parking setbacks along the streetscape to create visual interest.	**Consistent.** The proposed project plans (Appendix A) show the placement of buildings on-site configured such that a majority of the project site frontage (along Foothill Boulevard) is comprised of buildings and the two driveway entrances; parking rows bordering the north, east, and west boundaries of the project site, which serve as setbacks and privacy buffers from existing adjacent residential developments; and proposed buildings laid out in such a manner that creates a neighborhood effect due to coverage of the project site. Therefore, the project would be consistent with Policy 2-16.5.

Rialto General Goal or Policy	Analysis
Policy 2-16.6. Require architectural treatments on all façades facing rights-of-way, public streets, and alleys, including windows, doors, architectural details, and landscape treatment.	**Consistent.** The proposed project plans (Appendix A) include renderings and placements of the proposed buildings. Two buildings would front Foothill Boulevard, and the articulated facades contain windows, doors, balconies, architectural details and trim, and landscaping to reinforce the urban residential aesthetic. Therefore, the project would be consistent with Policy 2-16.6.
Policy 2-17.1. Require the planting of street trees along public streets and inclusion of trees and landscaping for private developments to improve airshed, minimize urban heat island effect, and lessen impacts of high winds.	**Consistent.** The project includes construction of paved sidewalks along the portion of Foothill Boulevard fronting the project site. The newly constructed sidewalk would include street trees to provide shade for pedestrians traversing along Foothill Boulevard. The street trees would also improve airshed, minimize urban heat island effects, and reduce impacts of high winds. Therefore, the project would be consistent with Policy 2-17.1.
Policy 2-17.2. Require all new development to incorporate tree plantings dense enough to shade and beautify residential and commercial areas.	**Consistent.** The project landscape plan includes tree plantings throughout the project site to beautify and provide shade around the proposed residential buildings, clubhouse/office, and sidewalk. Therefore, the project would be consistent with Policy 2-17.2.
Policy 2-17.3. Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	**Consistent.** The project landscape plan includes various drought-tolerant tree and shrub species with low to moderate water needs. The project includes installation of smart irrigation systems to prevent outdoor water waste. Therefore, the project would be consistent with Policy 2-17.3.
Policy 2-19.1. Require that new construction, additions, renovations, and infill developments be sensitive to neighborhood context and building form and scale.	**Consistent.** The project site is adjacent to existing single- and multi-family residential dwellings and commercial buildings. The proposed project entails infill development of a vacant site fronting Foothill Boulevard, with 204 multi-family residential units in seven buildings that would be three stories high. Proposed residential use is compatible with existing development, and the proposed buildings and placement follow a similar development pattern as existing development. Based on the project site plans, the proposed buildings would be placed with appropriate setbacks pursuant to the development standards of the Foothill Boulevard Specific Plan; and the building form and scale would have distinct characteristics of the development to provide sense of place, while the overall aesthetics and massing would be complementary of existing adjacent developments. Therefore, the project would be consistent with Policy 2-19.1.
Policy 2-19.2. Encourage property maintenance by requiring new development to submit precise plans of design to maintain landscape areas that incorporate property maintenance standards from the City's property maintenance ordinance.	**Consistent.** The project includes development and implementation of precise plans that detail maintenance of on-site landscaping and vegetation to ensure the project site conveys an orderly and appealing aesthetic, line of sight for vehicles and pedestrians is preserved, and safe site access is provided. Therefore, the project would be consistent with Policy 2-19.2.

Rialto General Goal or Policy	Analysis
Policy 2-19.5. Integrate residential developments with their built surroundings, and encourage a strong relationship between dwelling and the street.	**Consistent.** The project includes construction of paved sidewalks along the portion of Foothill Boulevard fronting the project site. The newly constructed sidewalk would include street trees to provide shade for pedestrians traversing along Foothill Boulevard. Proposed residential use is compatible with existing development, and the proposed buildings and placement follow a similar development pattern as existing development. Based on the project site plans, the proposed buildings would be placed with appropriate setbacks pursuant to the development standards of the Foothill Boulevard Specific Plan; and the building form and scale would have distinct characteristics of the development to provide sense of place, while the overall aesthetics and massing would be complementary of existing adjacent developments. Therefore, the project would be consistent with Policy 2-19.5.
Policy 2-19.6. Communicate the single-unit residential function of a building by encouraging the design of visually appealing residential dwellings that feature varied facades and pleasing compositions.	**Consistent.** The proposed project plans (Appendix A) include renderings of the proposed buildings, which show articulated front facades, strategically placed to create distinction between residential units by providing shade cover and privacy for balconies included with each unit. Therefore, the project would be consistent with Policy 2-19.6.
Policy 2-20.1. Require multi-unit buildings design to be visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim and roof shape.	**Consistent.** The proposed project plans (Appendix A) include renderings and placements of the proposed buildings. Buildings would contain articulated facades and composed primarily of stucco in neutral tones, accented with brick, wrought iron, and tile roofing. Setbacks are varied with surface parking rows serving as privacy buffers between proposed buildings and existing residential buildings adjacent to the project site. A variety of drought-tolerant trees and shrubs would be planted throughout the site to provide shade, vegetation coverage, and floral accents to the site. Therefore, the project would be consistent with Policy 2-20.1.
Policy 2-20.3. Require use of porches, stairs, railings, fascia boards, and trim to enhance multi-unit buildings' character.	**Consistent.** The proposed residential units would all contain private balconies with wrought-iron railings. The façade of the proposed buildings would be accented with trim, corbels, and brick as well to enhance the character of proposed buildings. Therefore, the project would be consistent with Policy 2-20.3.
Policy 2-20.4. Provide for multi-unit buildings to relate to the street and be located to reinforce street frontages.	**Consistent.** The frontage of the project site would be dominated by two buildings (articulated facades with landscaping), and the two driveway entrances. Parking areas would have limited visibility from Foothill Boulevard due to building placements and landscaping. Therefore, the project would be consistent with Policy 2-20.4.
Policy 2-20.5. Emphasize private, ground-level entries to individual units so that primary building entries are prominent and visible.	**Consistent.** Proposed buildings have well-defined access points for staircases with doors to individual units facing the stairwell breezeways to provide coverage from weather elements, shade, and privacy. Therefore, the project would be consistent with Policy 2-20.5.

Rialto General Goal or Policy	Analysis
Policy 2-20.6. Require pedestrian accessibility to adjacent uses with paseos, gates, pedestrian walkways, crossings, and sidewalks.	**Consistent.** The project includes improvements to the project site frontage along Foothill Boulevard, which includes implementation of a sidewalk segment compatible with existing neighboring segments. The proposed site plan also includes pedestrian walkways throughout the project site between buildings and parking areas. However, there are no pedestrian access points around the perimeter of the site aside from the frontage along Foothill Boulevard since adjacent uses include residential developments where privacy must be maintained. Therefore, the project would be consistent with Policy 2-20.6.
Policy 2-20.7. Require parking lots to be located at the rear or side of a site to allow a majority of dwelling units to front on the street.	**Consistent.** The proposed project plans (Appendix A) include placements of the proposed buildings and parking areas. The parking areas would primarily be located along the north, east, and west boundaries of the project site, as well as configured around buildings toward the center of the site. The frontage of the project site would be dominated by two buildings (articulated facades with landscaping), and the two driveway entrances. Therefore, the project would be consistent with Policy 2-20.7.
Policy 2-20.8. Encourage that each unit have some form of useful private open space, such as a patio, porch, deck, balcony, yard, or shared entry porches or balconies.	**Consistent.** According to the proposed project plans (Appendix A), each residential unit would have a private balcony. Therefore, the project would be consistent with Policy 2-20.8.
Policy 2-21.1. Require the provision of landscape buffers, walls, additional setbacks, and landscaped parking lots as buffers between commercial and/or industrial uses with residential land uses.	**Consistent.** The proposed site plan includes placement of landscaped areas and planters throughout the project site around buildings and parking areas to provide some pervious surfaces for rainwater and enhance project aesthetics. Therefore, the project would be consistent with Policy 2-21.1.
Policy 2-21.2. Require that the layout of units and/or buildings be staggered to maximize visual interest and individual identity.	**Consistent.** According to the proposed project plans (Appendix A), the buildings would be place throughout the site such that the proposed massing would not overshadow adjacent existing uses and provide each unit with maximized views beyond the project site. Two buildings would be placed along the Foothill Boulevard frontage, one building would be placed in the northwest corner of the site, three buildings clustered toward the central northeast quadrant of the site, and one building would be placed between the project site frontage and northwest corner. Therefore, the project would be consistent with Policy 2-21.2.
Policy 2-21.3. Discourage rectangular building footprints that lack visual interest or articulation along street frontages, and encourage the arrangement of structures on the site to allow for adequate screening of parking and loading areas as well as alleys on all industrial and commercial sites.	**Consistent.** The proposed project plans include placement of buildings such that buildings are spaced and staggered while allowing adequate vehicular and pedestrian flow between buildings and parking areas. The proposed buildings have well-defined articulated facades that provide prominent shaded balconies for each unit while creating visual interest and breaking the monotony of building mass. Therefore, the project would be consistent with Policy 2-21.3.
Policy 2-21.5. Encourage the clustering of residential units which provide semi-private common areas, maximize views, and provide passive open space and recreation uses within multi-unit developments.	**Consistent.** The proposed project plans include placement of buildings such that the buildings are spaced and staggered. However, adequate pedestrian walkways and greenspaces would also be provided on-site to be used as passive open space around and between buildings. The spacing and articulated facades of the buildings would maximize views beyond the project site. Therefore, the project would be consistent with Policy 2-21.5.

Rialto General Goal or Policy	Analysis
Policy 2-23.1. Require mature trees and landscaping in off-street parking areas to make them more inviting and aesthetically appealing, and to provide sufficient shading to reduce heat.	**Consistent.** The landscape plan included in the proposed project site plans includes a variety of trees and shrubs to provide shade cover around the parking rows and areas. Trees of various sizes (young and mature) would be placed in landscaped areas around buildings and parking to enhance the visual character of the project and site. Therefore, the project would be consistent with Policy 2-23.1.
Policy 2-23.2. Encourage the inclusion of textured paving along pedestrian walkways and under building canopies.	**Consistent.** Proposed pedestrian walkways, breezeways, and stairs would contain textured surfaces to provide visual enhancement to the site as well as safety (to prevent trips, slips, and falls). Therefore, the project would be consistent with Policy 2-23.2.
Policy 2-23.3. Require use of drainage improvements designed, with native vegetation where possible, to retain or detain water runoff and minimize pollutants into drainage system.	**Consistent.** The project would include implementation of on-site catch basins that would capture and convey stormwater and water runoff to storm drain infrastructure and underground infiltration chambers on-site. As discussed in Section 10, *Hydrology and Water Quality*, the proposed drainage improvements would minimize pollutant runoff from the site. Therefore, the project would be consistent with Policy 2-23.3.
Policy 2-26.1. Require that private open space be integrated into new development by providing green spaces and landscaped plazas between buildings.	**Consistent.** The project site plans include landscaped areas and planters throughout the project site by proposed buildings and parking areas to provide visual enhancements, shade cover, and ground cover. Pedestrian walkways would be clearly defined and enhanced by the proposed green spaces and landscaping, and also provide distinction between vehicular access due to human-scale vegetation elements. Therefore, the project would be consistent with Policy 2-26.1.
Policy 2-26.2. Enhance street corridors by incorporating small green areas, extensive landscaping, and street trees.	**Consistent.** The project landscape plan includes street trees to be planted on the project frontage along Foothill Boulevard. A variety of trees would be planted along the sidewalk to provide shade cover, with additional trees and shrubs planted by proposed driveway entrances and closer to proposed buildings to create a thematically cohesive, landscaped project frontage. Therefore, the project would be consistent with Policy 2-26.2.
Policy 2-29.1. Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.	**Consistent.** The project landscape plan includes various drought-tolerant tree and shrub species with low to moderate water needs. The project includes installation of smart irrigation systems to prevent outdoor water waste. All residential units would include low-flow faucets and toilets to minimize indoor water waste. Therefore, the project would be consistent with Policy 2-29.1.
Policy 2-30.2. Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.	**Consistent.** The project would comply with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. Solar zones have been identified for the rooftops of proposed buildings. Therefore, the project would be consistent with Policy 2-30.2.

Rialto General Goal or Policy	Analysis
Policy 2-31.1. Require the incorporation of energy conservation features into the design of all new construction and site development activities.	**Consistent.** The project would comply with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. Solar zones have been identified for the rooftops of proposed buildings. In addition, the project includes installation of smart irrigation systems to prevent outdoor water waste. Therefore, the project would be consistent with Policy 2-31.2.
Circulation Element	
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 includes improvements to the frontage along Foothill Boulevard such that a pedestrian sidewalk segment is implemented and connected to existing sidewalks. Vehicle drive aisles on-site would be accessed only by residents; these on-site drive aisles do not have connectivity to off-site streets except via the provides driveway entrances. Therefore, the project would be consistent with Policy 4-2.1.
Policy 4-2.3. Minimize new residential driveways on Arterial Roadways.	**Consistent.** The project includes development of two driveways along Foothill Boulevard. Unofficial, dirt driveways existing where there proposed driveways would be placed. No other driveway options are available to the project site aside from along Foothill Boulevard, due to existing development adjacent to the east, west, and north boundaries of the project site. Therefore, the project would be consistent with Policy 4-2.3.
Policy 4-9.2. Require sidewalks and parkways on all streets in new development.	**Consistent.** The project includes improvements to the frontage along Foothill Boulevard such that a pedestrian sidewalk segment is implemented and connected to existing sidewalks. On-site pedestrian walkways would also be implemented for residents to access buildings, common areas, parking areas, and the clubhouse. Therefore, the project would be consistent with Policy 4-9.2.
Policy 4-9.6. Encourage new development to provide pedestrian paths through projects, with outlets to adjacent collectors, secondaries, and arterial roadways.	**Consistent.** The project includes improvements to the frontage along Foothill Boulevard such that a pedestrian sidewalk segment is implemented and connected to existing sidewalks. On-site pedestrian walkways would also be implemented for residents to access buildings, common areas, parking areas, and the clubhouse; and accessible from within the project site and via two driveway entrances along Foothill Boulevard. Therefore, the project would be consistent with Policy 4-9.6.
Safety and Noise Elements	
Policy 5-1.1. Require geotechnical investigations by certified engineering geologist or other qualified professionals for all grading and construction projects subject to geologic hazards, including fault rupture, severe ground shaking, liquefaction, landslides, and collapsible or expansive soils. Particular attention should be paid to areas within Alquist-Priolo Earthquake Fault Zones.	**Consistent.** A Geotechnical and Infiltration Evaluation was prepared for the proposed project by GeoTek, Inc. (2021), included as Appendix D to this report. The study concluded that the project site can accommodate the proposed project and residential use, as designed, from a geologic standpoint. Therefore, the project would be consistent with Policy 5-1.1.
Policy 5-1.2. Require all construction to be in conformance with the Uniform Building Code (UBC) and the California Building Code (CBC), and to be consistent with the Municipal Code as it provides for earthquake resistant design, excavation, and grading.	**Consistent.** Project construction would be compliant with UBC, CBC, and RMC to reduce and/or eliminate seismic hazards to the greatest extent possible. Therefore, the project would be consistent with Policy 5-1.2.

Rialto General Goal or Policy	Analysis
Policy 5-2.2. Require the implementation of adequate erosion control measures for development projects to minimize sedimentation damage to drainage facilities.	**Consistent.** As discussed in Section 7, *Geology and Soils*, the project would be subject to compliance with CBC Division 70, which ensures implementation of appropriate measures during grading activities to reduce soil erosion. Therefore, the project would be consistent with Policy 5-2.2.
Policy 5-10.5. Require all exterior noise sources (construction operations, air compressors, pumps, fans and leaf blowers) to use available noise suppression devices and techniques to reduce exterior noise to acceptable levels that are compatible with adjacent land uses.	**Consistent.** Project construction and operational noise impacts are discussed in Section 13, *Noise*. Noise measurements and analysis based on proposed construction and residential use determined the project would not require any mitigation measures to address noise impacts. Standard industry best practices would be employed to ensure construction noise impacts are minimized to reduce disturbance to existing adjacent residents. Therefore, the project would be consistent with Policy 5-10.5.
Cultural and Historic Resources	
Policy 7-3.3. Avoid impacts to potentially significant prehistoric and historical archaeological resources and sites containing Native American human remains consistent with State law.	**Consistent.** As discussed in Section 5, *Cultural Resources*, no previously recorded cultural resources were documented within the project site and no previously conducted studies have been completed within the project site. Regardless, Mitigation Measures CUL-1 and TCR-1 through TCR-3 would ensure proper procedures to stop-work, and handle and document the discovery of unanticipated resources, and adherence to State of California Health and Safety Code Section 7050.5 would ensure proper recovery and notifications in the event that human remains are discovered. Therefore, the project would be consistent with Policy 7-3.3.

Table 19 Consistency with Foothill Boulevard Specific Plan

Project Component	Specific Plan/Zoning Requirement	Project[1]	Consistent?
Land Use	Residential-Mixed Use (R-MU) permitted residential types: Single-family dwellings (attached, detached), multi-family dwellings, live-work units, home occupations, large and small child day cares, accessory uses and structures for residential uses	Residential: Multi-family dwellings	Yes
Acreage	Minimum 1 acre for residential subdivisions or new multi-family	8.06 acres	Yes
Density	13 to 30 du/ac	Approximately 25 du/ac (204 units)	Yes
Height	Maximum 75 feet	Approximately 40 feet	Yes
Setbacks			
Abutting a Residential Zone ▪ Up to 35 ft height ▪ 35 ft or greater height	▪ 7 feet, landscaped with trees ▪ 1 additional foot for each 2 feet of height over 35 feet	Minimum 17 feet	Yes
Street and Alley	Minimum 5 feet	7 feet to 12 feet from sidewalk, fronting Foothill Boulevard	Yes
Interior Side Yard Not Abutting Residential	Minimum 5 feet, 10 feet average	> 10 feet	Yes
Interior Rear Yard Not Abutting Residential	0 feet	NA	NA
Parking			
Residential	2 spaces per unit (minimum 408 spaces for project)	204 spaces (covered carport) 164 spaces (uncovered)	
Guest	1 space per 4 units (minimum 51 spaces for project)	–	
Total Parking Spaces	**459 parking spaces**	**367 parking spaces[2]**	

[1] sf = square feet; du/acre = dwelling units per acre

[2] Pursuant to RMC Section 18.58.20(K) with variance permit

Source: Rialto 2010a, 2010b

NO IMPACT

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	■

a. Would the project 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. Would the project 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?

There are no mineral resource zones identified in the city or project site (California Geological Survey 2021; Rialto 2010a). Because the project site is within an urbanized area without known mineral resources of value, the proposed project would have no impact on mineral resources. Furthermore, proposed uses do not include mining activities. Therefore, the project would have no impact on mineral resources, and no mitigation measures would be required.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	■	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c. For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	■

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Caltrans 2013).

HUMAN PERCEPTION OF SOUND

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as

one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

SOUND PROPAGATION AND SHIELDING

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a "sound power level" or a "sound pressure level," which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

DESCRIPTORS

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}), the instantaneous maximum level (L_{max}), the lowest measured noise level during a measurement period (L_{min}), and the community noise equivalent level (CNEL; may also be symbolized as L_{den}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (DNL or L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00

a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or L_{DEN}), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).[3] The relationship between the peak-hour L_{eq} value and the L_{DN}/CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by L_{DN} and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 20.

Table 20 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5

Source: Caltrans 2020

[3] Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 21.

Table 21 Vibration Annoyance Potential Criteria

	Vibration Level (in/sec PPV)	
Human Response	**Transient Sources**	**Continuous/Frequent Intermittent Sources[1]**
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity

[1] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2020

Project Noise Setting

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. The Rialto General Plan Noise Element identifies noise-sensitive land uses as schools, hospitals, childcare, senior care, congregate care, churches, and all types of residential uses as noise sensitive (Rialto 2010a). The nearest noise-sensitive receivers are single-family homes adjacent to the west and north of the project site and multi-family residences adjacent to the east of the project site.

Noise Measurements

The most prevalent source of noise in the project site vicinity is vehicular traffic on Foothill Boulevard to the south. To characterize ambient sound levels at and near the project site, four 15-minute sound level measurements were conducted on Wednesday, July 28, 2021, between 8:13 a.m. and 9:38 a.m. An Extech Model 407780A, ANSI Type 2 integrating sound level meter was used to conduct the measurements. Figure 4 shows the noise measurement locations, Table 22 summarizes the results of the noise measurements, and Table 23 shows the recorded traffic volumes. Detailed sound level measurement data are included in Appendix G.

Table 22 Project Site Vicinity Sound Level Monitoring Results- Short-Term

	Measurement Location	Sample Times	Approximate Distance to Primary Noise Source	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NM-1	Southeastern portion of project site adjacent to Foothill Boulevard	9:23 – 9:38 a.m.	Approximately 75 feet to Foothill Boulevard centerline	61	45	78
NM-2	Northwestern portion of the project site adjacent to residences	8:37 – 8:52 a.m.	Approximately 400 feet to Foothill Boulevard centerline	48	39	58
NM-3	Northeastern portion of the project site adjacent to residences	8:13 – 8:28 a.m.	Approximately 640 feet to Foothill Boulevard centerline	44	39	56
NM-4	Southwestern portion of project site adjacent to Foothill Boulevard	9:02 – 9:17 a.m.	Approximately 125 feet to Foothill Boulevard centerline	53	43	64

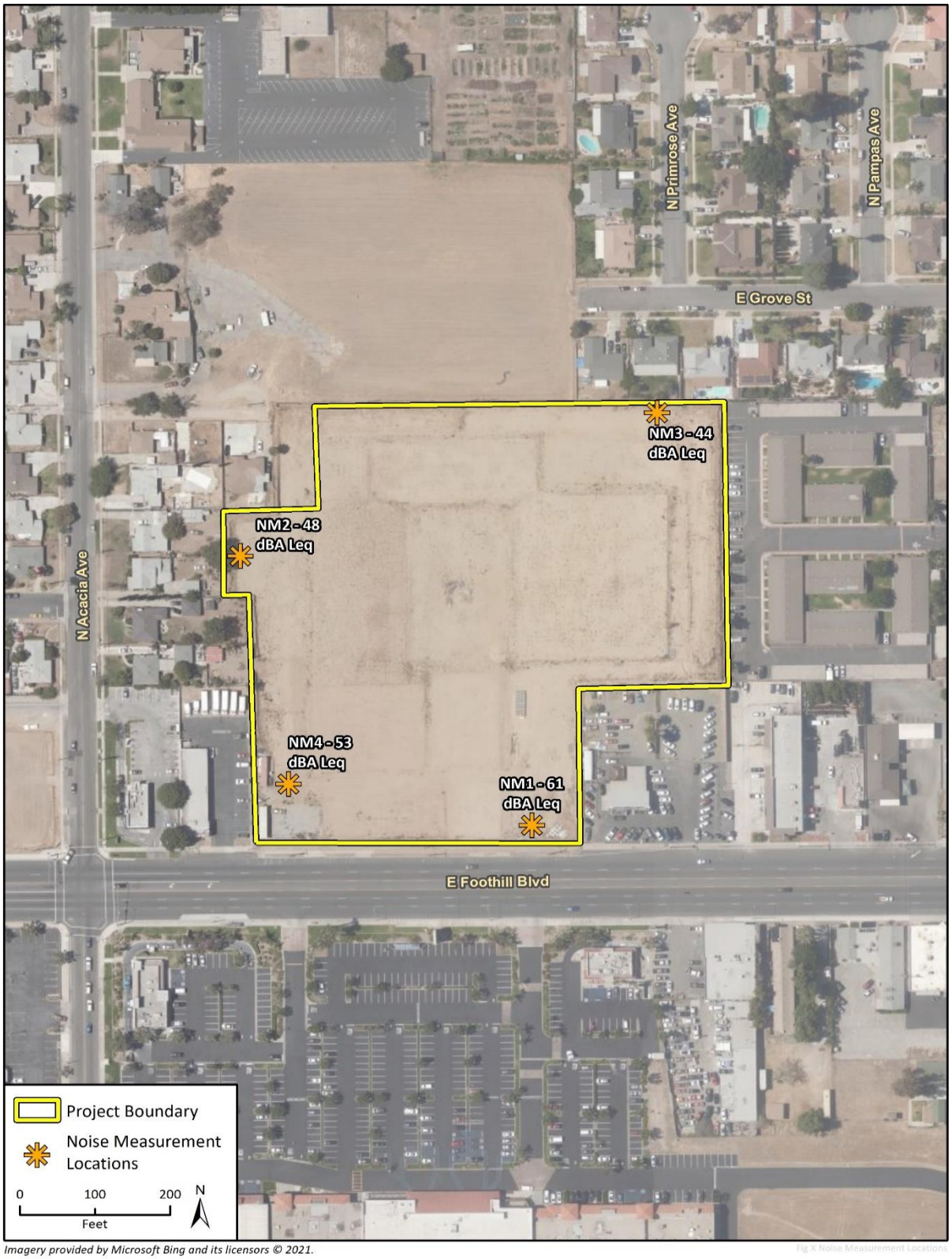
L_{eq} = average noise level equivalent; dBA = A-weighted decibel; L_{min} = minimum instantaneous noise level; L_{max} = maximum instantaneous noise level

Detailed sound level measurement data are included in Appendix G.

Table 23 Sound Level Monitoring Traffic Counts

Measurement	Roadway	Traffic	Autos	Medium Trucks	Heavy Trucks
NM1	Foothill Boulevard	15-minute count	229	2	2
		One-hour Equivalent	916	8	8
Percent			**98%**	**1%**	**1%**
NM4	Foothill Boulevard	15-minute count	188	5	2
		One-hour Equivalent	752	20	8
Percent			**96.4%**	**2.6%**	**1%**

Figure 4 Noise Measurement Locations



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Regulatory Setting

Federal

FTA Transit and Noise Vibration Impact Assessment Manual

The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual* (FTA 2018). For residential, commercial, and industrial uses, the daytime noise threshold is 80 dBA L_{eq}, 85 dBA L_{eq}, and 90 dBA L_{eq} for an 8-hour period, respectively.

State of California

California Building Code (CCR Title 24, Part 2)

California adopted noise insulation standards for residential buildings (Title 24, Part 2, California Code of Regulations, Section 1206, et. seq.). Title 24 establishes standards for interior room noise (attributable to outside noise sources). A project must be designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA in any habitable room.

Local

City of Rialto General Plan

The City of Rialto Safety and Noise Chapter sets goals to limit and reduce the effects of noise intrusion on sensitive land uses and to set acceptable noise levels for varying types of land uses. The City has the authority to set land use noise standards and place restrictions on private activities that generate excessive or intrusive noise. The City of Rialto has an established roadway network, and the majority of the city is built out, the Safety and Noise Chapter of the General Plan focuses on land use compatibility noise limits for existing and new noise sensitive land uses. The Noise Element establishes land use compatibility noise standards for various land uses, as shown in Table 24. Goals and policies that are relevant to the proposed project include:

Goal 5-10 Minimize the impact of point source and ambient noise levels throughout the community.

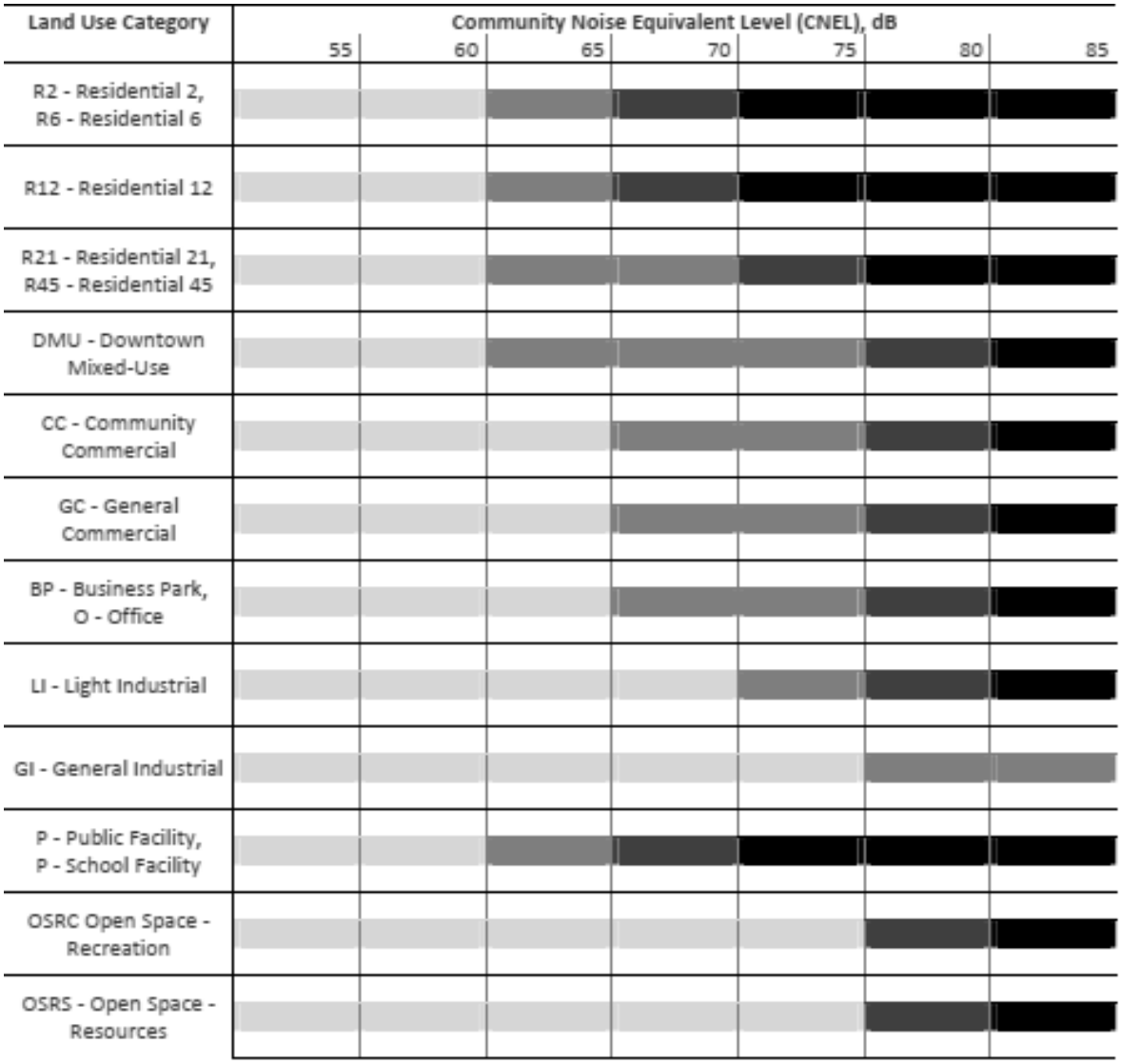
Policy 5-10.2 Consider noise impacts as part of the development review process, particularly the location of parking, ingress/egress/loading, and refuse collection areas relative to surrounding residential development and other noise-sensitive land uses.

Policy 5-10.3 Ensure that acceptable noise levels are maintained near schools, hospitals, and other noise sensitive areas in accordance with the Municipal Code and noise standards contained in Exhibit 5-5 (Table 24 of this document).

Policy 5-10.4 Limit the hours of operation at all noise generation sources that are adjacent to noise-sensitive areas.

Policy 5-10.5 Require all exterior noise sources (construction operations, air compressors, pumps, fans and leaf blowers) to use available noise suppression devices and techniques to reduce exterior noise to acceptable levels that are compatible with adjacent land uses.

Table 24 Rialto Noise Guidelines for Land Use Planning



Source: Chapter 5: Safety and Noise Chapter, Exhibit 5.5. Rialto 2010a

Goal 5-11 Minimize the impacts of transportation-related noise.

Policy 5-11.4 Develop a program for monitoring noise levels and investigating complaints.

Policy 5-11.5 Provide education to the community at large about the importance of maintaining a healthy noise environment, and identify ways residents can assist in noise abatement efforts.

City of Rialto Code of Ordinances

To implement the City's noise policies, the City adopted Title 9, Chapter 9.5 Noise Control (Noise Ordinance) in the RMC. The City's Noise Ordinance states that it is the City's policy to establish community-wide noise standards, serve as a reference for locating other City regulations relating to noise in the community, and 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.

RMC Section 9.50.070, Disturbances from Construction Activity, the City has set permitted hours for construction work to control noise impacts associated with construction of a project. Permitted construction hours are as follows:

1. October 1st through April 30th
   - Monday through Friday: 7:00 a.m. to 5:30 p.m.
   - Saturday: 8:00 a.m. to 5:00 p.m.
   - Sunday and State Holidays: No permissible hours
2. May 1st through September 30th
   - Monday through Friday: 6:00 a.m. to 7:00 p.m.
   - Saturday: 8:00 a.m. to 5:00 p.m.
   - Sunday and State Holidays: No permissible hours

Noise Level Increases Over Ambient Noise Levels

The operational and construction noise limits used in this analysis are set at reasonable levels at which a substantial noise level increase as compared to ambient noise levels would occur. Operational noise limits are lower than construction noise limits to account for the fact that permanent noise level increases associated with continuous operational noise sources typically result in adverse community reaction at lower magnitudes of increase than temporary noise level increases associated with construction activities that occur during daytime hours and do not affect sleep. Furthermore, these noise limits are tailored to specific land uses; for example, the noise limits for residential land uses are lower than those for commercial land uses. The difference in noise limits for each land use indicates that the noise limits inherently account for typical ambient noise levels associated with each land use. Therefore, an increase in ambient noise levels that exceeds these absolute limits would also be considered a substantial increase above ambient noise levels. As such, a separate evaluation of the magnitude of noise level increases over ambient noise levels would not provide additional analytical information regarding noise impacts and therefore is not included in this analysis.

a. Would the project result in 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?

Construction Noise

Construction activity would generate temporary noise in the project site vicinity, exposing surrounding sensitive receivers to increased noise levels. Project construction noise would be generated by heavy-duty diesel construction equipment used for site preparation, grading, building construction, and paving activities. Each phase of construction has a specific equipment mix and associated noise characteristics, depending on the equipment used during that phase. Construction noise would typically be higher during the more equipment-intensive phases of initial construction (i.e., site preparation, and grading work) and would be lower during the later construction phases (i.e., building construction and paving). Construction noise was estimated using reference noise levels and equipment use factors from the FHWA Roadway Construction Noise Model (RCNM; 2006).

Noise impacts from construction equipment are typically assessed from the center of the equipment activity area over the time period of a construction day (e.g., grading area, construction site, etc.). Due to the size of the project site, modeling conservatively assumes simultaneous operation of an excavator, a front-end loader, and a grader operating simultaneously during the grading phase. Maximum hourly noise levels were estimated to be 83 dBA L_{eq} at a distance of 50 feet (RCNM calculations are included in Appendix G).

Per RMC Section 11.44.080, noise generated by construction activities are permitted between the hours of 7:00 a.m. to 5:30 p.m., Monday through Friday and between 8:00 a.m. to 5:00 p.m. on Saturdays from October 1st through April 30th and 6:00 a.m. to 7:00 p.m., Monday through Friday and between 8:00 a.m. to 5:00 p.m. on Saturdays from May 1st through September 30th. Sundays and holidays have no permissible hours throughout the year. For purposes of quantitatively analyzing construction noise impacts from this project, the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) criteria were used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA L_{eq} (8-hour); for commercial uses, the daytime noise threshold is 85 dBA L_{eq}(8-hour).

The closest sensitive receivers to project construction would be residences approximately 325 feet to the west, north and east of the center of the project site. Over the course of a typical eight-hour construction day, the construction equipment would be mobile and is estimated to operate at an average distance of 150 feet from the nearest sensitive receivers and adjacent commercial uses. Therefore, construction noise levels from simultaneous operation excavator, a front-end loader, and a grader at 150 feet would be approximately 74 dBA L_{eq} at the nearest sensitive receivers and adjacent commercial uses, which not exceed the daytime construction noise threshold of 80 dBA L_{eq} and 85 dBA L_{eq} for residential and commercial uses, respectively. Construction noise levels at other nearby sensitive receivers would be less than the noise levels at the nearest sensitive receiver due to distance attenuation and intervening structures. Therefore, construction noise impacts would be less than significant, and no mitigation measures would be required.

On-site Operational Noise

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of residential complexes, such as vehicles arriving and leaving, children at play, and landscape maintenance machinery. Noise sources of this nature are consistent with the existing noise environment and would not be anticipated to exceed applicable noise level limits from the Code of Ordinances.

Operational noise sources would also include HVAC units). Specific location and planning data for the future HVAC systems are not available at this stage of project design. Based upon one ton of HVAC per 600 sf of building space and the square footage of proposed residential units shown on the site plan, 3-ton Carrier 38HDR036 Performance Series Air Conditioner units were estimated to be required for units of 1,247 sf to 1,777 sf and a 6.3-ton Carrier 38SUZ08 Gemini Series Air Conditioner was estimated to be required for the 3,210 sf leasing office and clubhouse. The manufacturer's sound power noise data is provided below in Table 25 (see Appendix G for specification sheets).

Table 25 HVAC Noise Levels

	Noise Levels in dB[1] Measured at Octave Frequencies							Overall Noise Level in A-weighted Scale (dBA)[1]
HVAC Unit	125 Hz	250 Hz	500 Hz	1 KHz	2 KHz	4 KHz	8 KHz	
5-ton	63.0	61.5	64.0	66.5	66.0	64.5	55.5	72
6.3-ton	89.7	82.6	77.6	74.4	70.3	68.0	64.2	81

[1] Noise Levels for 3-ton Carrier 38HDR036 Performance Series and 6.3-ton Carrier 38AUZ08 ground mounted HVAC units (see Appendix G for specification sheets).

Hz = Hertz; KHz = kilohertz

The project proposes three-story apartment buildings containing 24 to 36 units. This analysis assumes three residential HVAC units would be located at the end of each row of apartments adjacent to off-site residential uses and assumed to operate at 100 percent of an hour for 24 hours. The nearest off-site noise-sensitive receivers, consisting of residences to the east, west, and north, would be located at least 80 feet from the nearest ground-mounted residential HVAC equipment and approximately 280 feet from leasing office and clubhouse HVAC equipment, based on the approximate location of proposed buildings and distance of the nearest off-site residential property lines. Noise from HVAC equipment would attenuate at a rate of approximately 6 dBA per doubling of distance from the source. A single ground-mounted residential HVAC unit (Carrier 38HDR036) would generate a noise level of 40 dBA L_{eq} at 80 feet, and the ground mounted leasing office and clubhouse HVAC unit (Carrier 38SUZ08) would generate a noise level of 38 dBA L_{eq} at 280 feet.

Adjacent residential receivers to the project site would be exposed to four project HVAC units, three 5-ton units and one 6.3-ton unit. Residential uses to the east of the project site would be exposed to a combined 24-hour HVAC noise level of up to 52 dBA CNEL. Residential uses to the north of the project site would be exposed to a combined 24-hour HVAC noise level of up to 51 dBA CNEL. Residential uses to the west of the project site would be exposed to a combined 24-hour HVAC noise level of up to 50 dBA CNEL. Combined project HVAC noise levels would not exceed the City's 60 dBA CNEL threshold. Therefore, HVAC noise impacts would be less than significant, and no mitigation measures would be required.

Off-site Roadway Noise

The project would add traffic to nearby roadways, thereby increasing traffic noise levels. Traffic noise modeling was conducted based on traffic volumes from the supplemental traffic analysis prepared by Urban Crossroads for this project (Urban Crossroads 2021). The FHWA Highway Traffic Noise Prediction Model (FHWA RD 77-108) was used to calculate traffic noise levels along East Foothill Boulevard. The project's contribution to traffic noise levels along East Foothill Boulevard was determined by comparing the predicted noise levels at a reference distance of 50 feet from the roadway centerline for existing, existing plus ambient growth, and cumulative conditions with and without project-generated traffic. The vehicle classification mix for modeling is based on traffic counts

conducted concurrently with noise measurements and assumes 96.4 percent automobiles, 2.6 percent medium trucks, and 1 percent heavy trucks. Model results are included in Appendix G.

As discussed in Section 17, *Transportation*, project operation would add approximately 1,110 average daily trips to the nearby roadways. Traffic noise impacts are evaluated in consideration of the City's Noise and Land Use Compatibility Guidelines (see Table 24) and community response to changes in ambient noise levels. As discussed under *Overview of Noise and Vibration*, the average healthy ear can barely perceive an increase of up to 3 dBA in noise levels, and a change of 5 dBA is readily perceptible. Based on this information, off-site traffic noise impacts would be significant if project-related traffic would result if one of the following would occur:

- A noise level increase of 5 dBA or greater if noise levels remain within the same land use compatibility classification at the sensitive receiver;
- A noise level increase of 3 dBA or greater if noise levels change the land use compatibility classification of the sensitive receiver;
- Any increase in noise levels if existing noise levels fall within the "normally unacceptable" or "clearly unacceptable" ranges at the sensitive receiver.

The project would not make alterations to roadway alignments or substantially change the vehicle classifications mix on local roadways. Therefore, the primary factor affecting offsite noise levels would be increased traffic volumes due to the project. Noise levels with and without project-generated traffic are shown in Table 26. As shown, traffic noise increases would be less than 1 dBA, which would not exceed the 3 dBA criterion for offsite traffic noise impacts. Impacts would be less than significant.

Noise/Land Use Compatibility

The ruling for *California Building Industry Association v. Bay Area Air Quality Management District* determined that under CEQA, except for a few specified and limited instances, environmental impacts on residents of a proposed project are not required to be analyzed, except when the project would exacerbate environmental hazards or conditions that already exist (i.e., CEQA requires the analysis of the impacts of a project on the environment and not analysis of the environment's impacts on a project). As discussed in the preceding subsections, project operation would not significantly exacerbate existing ambient noise conditions with implementation of noise recommendations; therefore, an evaluation of how future tenants of the project would be affected by exacerbated conditions is not required. Accordingly, the following noise/land use compatibility discussion is provided for informational purposes only.

The City of Rialto's General Plan Noise Element considers ambient noise levels up to 60 dBA CNEL to be normally acceptable, ambient noise levels up to 70 dBA CNEL to be conditionally acceptable, and ambient noise levels up to 75 dBA CNEL to be normally unacceptable for multi-family land uses (see *Regulatory Setting*). Noise levels at apartment uses adjacent to East Foothill Boulevard would experience traffic noise levels of 70 dBA CNEL. Common outdoor activity areas, playground and pool area, would be located 175 feet from the roadway centerline and would experience traffic noise levels of 61 dBA to 62 dBA CNEL when accounting for the distance from these areas to East Foothill Boulevard and the shielding effects (-3 dBA for the common outdoor activity area and -5 dBA for the

Table 26 Off-site Traffic Noise Increases, CNEL

Roadway	Segment	Existing Noise Level (ADT)	Existing Plus Project Noise Level (ADT)	Noise Level Change (dBA)	Existing Ambient Growth 2024 (dBA)	Existing Ambient Growth 2024 Plus Project Noise Level (dBA)	Noise Level Change (dBA)	Existing Ambient Growth 2024 Plus Cumulative	Existing Ambient Growth 2024 Plus Cumulative Plus Project	Noise Level Change (dBA)
East Foothill Boulevard	N. Sycamore Avenue to N. Acacia Avenue	71	71	<1	70	71	<1	71	71	<1
	N. Acacia Avenue to Driveway 1	71	71	<1	70	70	<1	71	71	<1
	Driveway 1 to Driveway 2	71	71	<1	70	70	<1	71	71	<1
	Driveway 2 to N. Eucalyptus Avenue	71	71	<1	71	71	<1	71	71	<1
	N. Eucalyptus Avenue to N. Pepper Avenue	70	70	<1	70	70	<1	71	71	<1

See Appendix G for traffic modeling results.

Traffic Volume Source: Urban Crossroads 2021

pool area) from the proposed apartment buildings. These noise levels would fall within the "conditionally acceptable" range for multi-family residential land uses per the City's noise/land use compatibility criteria (see *Regulatory Setting*). Therefore, noise levels would comply with the City's 70 dBA CNEL conditionally acceptable exterior noise standard.

Standard construction techniques for wood-frame construction buildings required under the California Building Code typically achieve a minimum 25 dBA reduction from exterior sources at interior locations when the windows are in a closed position (FHWA 2011). The nearest apartment building façade to East Foothill Boulevard would be approximately 75 feet from the centerline.

Modeled cumulative traffic noise levels at the nearest apartment building façade resulted in a traffic noise level of 70 dBA CNEL. Assuming a 25 dBA reduction from exterior sources to interior habitable rooms because the project would be new construction and include HVAC units so residents could close windows, interior traffic noise levels would be 45 dBA CNEL at interior spaces. Residential units adjacent to East Foothill Boulevard would comply with the City's interior noise standard of 45 dBA CNEL as well as the State interior noise level standard for non-residential occupied space with windows closed. Therefore, interior noise impacts would be less than significant, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Project construction would not involve activities typically associated with excessive groundborne vibration such as pile driving or blasting. The equipment utilized during project construction that would generate the highest levels of vibration would include jackhammers, loaded trucks, and bulldozers. The City of Rialto has not adopted standards to assess vibration impacts during construction and operation. However, Caltrans has developed limits for the assessment of vibrations from transportation and construction sources. The Caltrans vibration limits are reflective of standard practice for analyzing vibration impacts on structures from continuous and intermittent sources. The thresholds of significance used in this analysis to evaluate vibration impacts are based on these impact criteria, as summarized in Table 20 and Table 21.

Project construction may require operation of vibratory equipment such as jackhammers, loaded trucks, and bulldozers within 50 feet of the off-site residential buildings during the site preparation and paving phases. As shown in Table 27, vibration levels from individual pieces of construction equipment would not exceed the threshold at which damage can occur to residential structures, 0.20 in/sec PPV, or the threshold at which transient vibration sources would be distinctly perceptible to 0.25 in/sec PPV. Construction vibration levels at all other buildings in the immediate vicinity, including residences to the east, west, and north would be less than the levels shown in Table 27 because vibration levels would attenuate with distance. Furthermore, in accordance with RMC Section 11.44.080, project construction would be required to occur during daytime hours and would not disturb residences adjacent to the project during sensitive hours of sleep. Therefore, construction vibration impacts would be less than significant, and no mitigation measures would be required.

Table 27 Vibration Levels at Sensitive Receivers

Equipment	Estimated in/sec PPV at Nearest Building (50 feet)
Large Bulldozer	0.0415
Jackhammer	0.0163
Loaded Truck	0.0355
Threshold	**0.20**
Threshold Exceeded?	No

See Appendix G for vibration analysis worksheets.

Operation

As a residential apartment development, the proposed project would not generate significant stationary sources of vibration, such as manufacturing or heavy equipment operations. No operational vibration impact would occur, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

c. For a project located within the vicinity of a private airstrip or 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?

There are no existing public or private airstrips in the city. The closest airport to the project site is the San Bernardino International Airport, located approximately 6.6 miles east from the project site. The project would not expose people residing or working in the project area to excessive noise levels from airport noise. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

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14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a. Would the project 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)?

The project entails infill development of 204 residential units on a vacant project site that is located along a main transportation corridor, Foothill Boulevard. According to the DOF population estimates, the average household size for the City of Rialto is 3.96 persons (DOF 2021). The project includes development of 204 residential units. Therefore, the project would result in a service population of 808 persons (204 units x 3.96 persons per unit).

The population growth forecast in SCAG's 2020 RTP/SCS (Connect SoCal) estimate that the city's population would increase from 99,300 in 2016 to 139,100 in 2045 (SCAG 2020). Based on an estimated increase of 808 persons, the project would account for approximately 2 percent of the forecasted population growth for the city between 2020 and 2045.[4] In addition, the Foothill Boulevard Specific Plan is estimated to support an additional 2,792 residents upon buildout; of which, anticipated project residents would account for approximately 30 percent (Rialto 2010b). Therefore, the project would not contribute to residential population growth in the City beyond that planned for by the SCAG's 2020 RTP/SCS and the Foothill Boulevard Specific Plan.

Similarly, the household growth forecasts in SCAG's 2020 RTP/SCS estimate that the total number of households in Rialto would increase to 37,100 in 2045, for a net increase of 10,600 households from 2016 estimates (SCAG 2020). The project would increase the number of households by 204, which would account for approximately two percent of the forecasted household growth between 2016 and 2045. In addition, the Foothill Boulevard Specific Plan is estimated to support an additional 946 residential dwelling units upon buildout; of which, the proposed 204 multi-family residential units would account for approximately 22 percent (Rialto 2010b). Therefore, the project's contribution to

[4] Percentage of project residential population from SCAG 2045 City growth forecast = (808 project residents)/(39,800 SCAG estimate net growth) = 2.03%

housing in the city would also be within SCAG growth projections and within the development potential pursuant to the Foothill Boulevard Specific Plan.

The project does not include infrastructure improvements that would extend roadways or infrastructure into areas that do not currently support residential or other urban uses. Therefore, the project would not increase population growth in Rialto beyond that anticipated for by the city in the General Plan and Foothill Boulevard Specific Plan. The project would have a less than significant impact on population growth, and no mitigation measures would be required.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site is vacant and does not contain any residential units that would be demolished or permanent residents who would be relocated in order to implement the proposed project. Implementation of the proposed project would provide multi-family housing in an area adjacent to existing single-family homes and commercial uses. The project would yield a net benefit of 204 new residential units for the city, which anticipates population growth through 2045 as forecasted by SCAG. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	■	☐
	4 Parks?	☐	☐	■	☐
	5 Other public facilities?	☐	☐	■	☐

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The City of Rialto Fire Department (RFD) provides fire protection services for the city, and the project site is within the RFD's service area. The RFD is comprised of five fire stations, of which Station 201 is located nearest (131 South Willow Avenue) approximately 1.5 miles southwest from the project site.

Development of the proposed project would incrementally increase the demand for fire protection services due to the new 204 residential units and anticipated residents. However, the proposed project is not expected to substantially increase service demand such that a new fire station would need to be constructed since the project would not result in substantial population or housing growth beyond that already anticipated under the Foothill Boulevard Specific Plan and growth forecasts included in SCAG's 2020 RTP/SCS, as discussed in Section 14, *Population and Housing*. Like all new development projects in the city, the proposed project would be required to pay fees based on the City of Rialto Development Fee Schedule to address the potential increases in demand for fire service calls. Such fees are paid on a project-by-project basis to ensure a proportionate fair share is contributed toward facilities, equipment, and personnel that would be needed over time to accommodate the additional demand from the proposed residential use and future residents. Implementation of the project would not require new or physically altered fire department facilities.

Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The City of Rialto Police Department (RPD) provides police protection services for the city, and the project site is located within RPD's Area 2, which covers the city's northeast quadrant (north of Foothill Boulevard and east of Lilac Avenue). The police station closest to the project site is located at 128 North Willow Avenue, approximately 1.3 miles southwest of the project site.

Development of the proposed project would incrementally increase the demand for police protection services due to the new 204 residential units and anticipated residents. However, the proposed project is not expected to substantially increase service demand such that a new police station would need to be constructed since the project would not result in substantial population or housing growth beyond that already anticipated under the Foothill Boulevard Specific Plan and growth forecasts included in SCAG's 2020 RTP/SCS, as discussed in Section 14, *Population and Housing*.

The proposed project is not anticipated to increase response times to the project site or surrounding areas since the project site and vicinity are currently served and patrolled by the RPD. The City has established development impact fees that are charged to all new developments within the City of Rialto to provide adequate funding for police services and to address the potential increases in demand for police calls. These development fees would cover the proportionate amount of additional expense to police services resulting from the proposed project, which include infrastructure, equipment, and staffing. Implementation of the project would not require new or physically altered police facilities. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project site is within the Rialto Unified School District (RUSD). The K-12 schools located nearest to the project site include the following:

- **Casey Elementary School** (219 North Eucalyptus Avenue), approximately 0.4 mile southeast
- **Frisbie Middle School** (1442 North Eucalyptus Avenue), approximately 1.4 miles north
- **Eisenhower Senior High School** (1321 North Lilac Avenue), approximately 2.4 miles northwest

The student generation factor for "attached" housing units within the RUSD is 0.99 Grade K-12 students per dwelling unit, or a total of approximately 202 K-12 students generated by the project. According to the Rialto General Plan, full buildout under the Foothill Boulevard Specific Plan would provide 946 dwelling units, which could result in a total of approximately 937 K-12 students (assuming all dwelling units built in the Foothill Boulevard Specific Plan area are attached housing units). The project would account for approximately 22 percent of the anticipated number of students generated within the Foothill Boulevard Specific Plan area at full buildout; therefore, the number of students generated by the project would be within the anticipated student population growth forecast. The project applicant would also be required to pay mandatory school impact fees to the RUSD, pursuant to California Government Code Section 65995 (3)(h), to cover the proportionate amount of additional expense of accommodating project-generated student residents. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Project impacts on recreational resources are discussed in Section 16, *Recreation*. The project includes development of on-site common and private open space, tot lot, and community swimming pool and recreational center for residential use; and the project applicant would pay fair share contributions into the City's park development fees. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The city is served by the San Bernardino County Public Library (SBCPL), and the nearest branch is the Rialto Branch Library (251 West First Street) located approximately 1.4 miles southwest from the project site. As discussed in Section 14, *Population and Housing*, the project would generate approximately 808 residents, who would utilize the Rialto Branch Library. The City requires that certain types of development pay impact fees to compensate for additional services provided by public facilities as a result of project implementation. The City of Rialto requires development fees for libraries, open space, and general facilities; of which, the proposed project would be subject to, which is based on the proposed residential use and anticipated population growth. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	■	☐
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?	☐	☐	☐	■

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?

According to the City's General Plan, the City has a total of 305.9 acres of park land, open space, and recreational areas composed of mini parks, neighborhood and community parks, planned parks, recreational facilities, and RUSD open spaces. The City has adopted a standard of three acres per 1,000 residents and uses this ratio for park dedication/fees requirements (Rialto 2010a). The City currently provides approximately three acres per 1,000 residents, thereby meeting its park service ratio[5]. There are no regional parks within Rialto; however, the Glen Helen Regional Park is located adjacent to Rialto's sphere of influence, approximately seven miles northwest from the project site.

The following recreational resources are located within a one-mile radius of the project site:

- Sand Hills Park and the Nicholson Park Community Center (2750 West 2nd Street, San Bernardino), approximately 0.5 mile southeast
- Margaret Todd Park (southeast corner of North Willow Avenue and West 2nd Avenue), approximately 0.85 mile southwest
- Bud Bender Park (235 North Lilac Avenue), approximately one mile southwest

Project residents would use local parks and recreational facilities in the vicinity of the project site. According to the City's General Plan, there are planned parks and recreational amenities in the Lytle Creek Specific Plan and Renaissance Specific Plan (acreages to be determined) which would be added to the City's inventory of parks for public use. Although the addition of project residents would incrementally increase use of community and regional parks and recreation facilities, the increase in use would be within that anticipated by the City's General Plan and Foothill Boulevard Specific Plan and is not expected to result in substantial physical deterioration of existing facilities. Furthermore,

[5] City of Rialto has an estimated population of 102,567 residents as of May 2021. (DOF 2021)

the project includes development of common and private open space, tot lot, and community swimming pool and recreational center for residential use.

The City has established park development fees to offset the costs associated with increased maintenance and the addition of park facilities resulting from new development. The City's park development fees are generated based on the type of land use. Residential uses are required to pay a park development fee. Therefore, the impact would be less than significant, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

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?

The project entails infill development of 204 multi-family residential units on a vacant site fronting Foothill Boulevard. As stated above, the project includes development of common and private open space, tot lot, and community swimming pool and recreational center for residential use. Population growth resulting from the project would be within the City's 2045 population growth estimate, as discussed in Section 14, *Population and Housing*. The project does not require the construction or expansion of off-site public recreational facilities. Therefore, the project would have no impact, and no mitigation measures would be required.

NO IMPACT

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	■	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	■	☐	☐
d. Result in inadequate emergency access?	☐	☐	■	☐

A Traffic Analysis (TA) was prepared by Urban Crossroads, Inc. in August 2021 to assess the potential traffic impacts of the proposed project. The findings and recommendations of the TA are summarized herein, and the TA is included as Appendix H.

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project site and surrounding area are served by existing pedestrian and public transit facilities. The pedestrian network in the vicinity of the project site consists of crosswalks, pedestrian crossing, and sidewalks. Sidewalks exist along both sides of Foothill Boulevard, with exception to the Foothill Boulevard frontage of the project site which is unpaved. The project site and vicinity are served by OmniTrans, a public transit agency serving several jurisdictions within the County of San Bernardino. OmniTrans Route 14 currently runs along Foothill Boulevard with existing stops at Acacia Avenue and Eucalyptus Avenue, and transit stops are located at the intersections of Acacia Avenue/Foothill Boulevard and Eucalyptus Avenue/Foothill Boulevard. Residents of the proposed development would be encouraged to use existing transit options in the vicinity. The only existing bicycle trail is the Pacific Electric Trail, located south of Foothill Boulevard, which contained nominal bicycle and pedestrian activity during field observations (Appendix H). The construction of the proposed buildings would not result in any changes to the lane or street configuration of Foothill Boulevard, would include paved driveways and sidewalks along the Foothill Boulevard frontage, and would not alter existing bus and transit facilities that could affect service, access, or safety. Therefore, this project impact would have a less than significant impact on transit, bicycle, and pedestrian facilities; and no mitigation measures would be required.

The project-specific TA was prepared in consultation with City of Rialto staff through the Scoping Letter Agreement process, and in accordance with the City's *Traffic Impact Analysis Report Guidelines and Requirements*, County of San Bernardino *Transportation Impact Study Guidelines* (dated July 9, 2019), and County of San Bernardino Congestion Management Program (CMP) *Guidelines for CMP Traffic Impact Analysis Reports* (2016 Update).

Potential deficiencies to traffic and circulation were assessed for the following conditions:

- Existing (2021 conditions)
- Existing plus Ambient Growth plus Project (EAP; 2024 conditions), to account for background traffic growth of two percent per year for a total of 6.12 percent through 2024 conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC; 2024 conditions), in addition to background traffic growth, to account for ambient growth consistent with growth used by other projects in the area based on a comprehensive list of existing/planned projects from the City and other nearby agencies

The study area included the following intersections:

1. Acacia Avenue and Foothill Boulevard
2. Driveway 1 and Foothill Boulevard
3. Driveway 2 and Foothill Boulevard
4. Eucalyptus Avenue and Foothill Boulevard

Project trip generation rates were estimated based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017). The proposed project is anticipated to generate a total of 1,100 trips per day with 73 AM peak hour trips and 90 PM peak hour trips (Appendix H).

Level of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS), which 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 which represents completely free-flow conditions, to LOS F which represents 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 (Appendix H).

The City's General Plan has established minimum LOS standards:

Policy 4-1.20 Design City streets so that signalized intersections operate at 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 required new development to mitigate traffic impacts and increase delay above that level.

The City's Traffic Study Guidelines identifies LOS D as the minimum acceptable LOS for intersections and roadway segments (with exception of Riverside Drive south of the Metrolink tracks to the city's southern border, which can operate at LOS E). Deficiencies are deemed to occur at any intersection in which a project causes the LOS to call 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

Intersection Capacity Analysis

The definitions of LOS for interrupted traffic flow differ based on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

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 28.

Table 28 Signalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (seconds)	Level of Service, V/C
Operations with very low delay occurring with favorable progression and/or short cycle length	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths	10.01 to 20.00	B
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
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
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
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.00	F

Source: Adapted from Table 2-1 of TA. Urban Crossroads 2021 (Appendix H)

The City requires operations of unsignalized intersections be evaluated using the methodology described in HCM, where LOS rating is based on the weighted average control delay expressed in seconds per vehicle as summarized in Table 29.

Table 29 Unsignalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (seconds)	Level of Service, V/C
Little to no delays	0 to 10.00	A
Short traffic delays	10.01 to 15.00	B
Average traffic delays	15.01 to 25.00	C
Long traffic delays	25.01 to 35.00	D
Very long traffic delays	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded	> 50.00	F

Source: Adapted from Table 2-2 of TA. Urban Crossroads 2021 (Appendix H)

As summarized in Table 30, study area intersections would operate above the City's LOS threshold under EAP and EAPC scenarios except for the Driveway 2 and Foothill Boulevard intersection, which would operate at LOS E. No improvements have been recommended for the Driveway 2 and Foothill Boulevard intersection under the EAP and EAPC scenarios because though installing a traffic signal would improve the intersection to an acceptable LOS and serve the project and existing commercial retail property to the south, the deficiency of the intersection is entirely caused by the high level of side street delays of vehicles waiting to turn onto Foothill Boulevard at Driveway 2 and the southern property's driveway (Appendix H).

Table 30 Intersection Analysis

		Existing (2021)				EAP (2024)				EAPC (2024)			
		Delay (sec)		LOS		Delay (sec)		LOS		Delay (sec)		LOS	
Intersection	Traffic Control[1]	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Acacia Avenue & Foothill Boulevard	TS	16.1	15.0	A	B	18.2	16.0	B	B	19.7	17.1	B	B
Driveway 1 & Foothill Boulevard	CSS	NA	NA	NA	NA	13.7	13.8	B	B	14.1	14.3	B	B
Driveway 2 & Foothill Boulevard	CSS	18.3	26.2	C	D	**35.5**	**44.4**	**E**	**E**	**38.3**	**49.1**	**E**	**E**
Eucalyptus Avenue & Foothill Boulevard	TS	12.8	13.4	B	B	13.0	13.8	B	B	13.1	14.1	B	B

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS)

[1] CSS = Cross street stop; TS = Traffic signal

Source: Adapted from Tables 5-1 and 6-1 of TA. Urban Crossroads 2021 (Appendix H)

There are no recommendations included in the TA to ensure study intersections operate at acceptable LOS. The project would increase local traffic levels, but not to the extent of rendering unacceptable LOS. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

The City of Rialto utilizes the San Bernardino County Transportation Authority (SBCTA) Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment and VMT Screening Tool. The Screening Tool allows users to input an APN to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA.

The County Guidelines provide details on appropriate VMT screening thresholds for land use projects that are anticipated to result in a less-than-significant impact without conducting a more detailed analysis. The following are the three screening threshold types:

- **Project Type Screening:** Consistent with County Guidelines and OPR's Technical Advisory, local serving uses such as day care centers, retail uses under 50,000 sf, community institutions, affordable housing, and projects that generate fewer than 110 daily vehicle trips. Trips generated by the proposed multi-family residential project have been estimated based on trip generation rates collected by the ITE Trip Generation Manual. The proposed project is anticipated to generate a total of 1,110 vehicle trips per day, which would exceed the 110 daily vehicle trips threshold. Therefore, the project does not meet the Project Type Screening threshold.
- **Transit Priority Area Screening:** Consistent with guidance identified in OPR's Technical Advisory, County Guidelines note that projects located within a Transit Priority Area (TPA) (i.e., within one-half mile of an existing "major transit stop" or an existing stop along a "high-quality transit corridor") may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:
- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

  The project site is not located within one-half mile of an existing major transit stop, or along a high-quality transit corridor. Therefore, the project does not meet the TPA Screening threshold.
- **Low VMT Area Screening:** OPR's Technical Advisory states, "residential and office projects that locate in areas with low VMT and that incorporate similar features (i.e., density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT." The County's Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model to measure VMT performance within individual traffic analysis zones within the region. The project site's physical location, based on parcel location, is input into the County's Screening Tool to determine project generated VMT.

The project site is located within TAZ 53759501, which includes households and population consistent with the proposed project. County Guidelines state that residential projects are to utilize VMT per person for all home-based trips, and further states, "A project should be considered to have a significant impact if the project VMT per person is greater than four percent below the existing VMT per person for the County." Based on screening tool results the proposed project was found to be located within a low VMT area. Therefore, the project meets the Low VMT Area Screening threshold.

The City is currently developing agency-specific VMT guidelines and thresholds. However, the project's VMT impact is anticipated to be less than significant based on the current San Bernardino County Guidance. Therefore, the project would have a less than significant impact, and no mitigation measures would be required.

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c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Based on the proposed site plan (Figure 3), there are no design features that would increase circulation hazards on- and off-site. The project and two proposed driveways along Foothill Boulevard would not alter existing roadways or circulation, and adequate site distance and turn radii in and out of the project site are provided by proposed driveways. Occupancy of a multi-family residential community would not result in roadway uses that would be incompatible with the existing land uses surrounding the area. However, the following mitigation measures are included to ensure site access and adequate vehicle queuing for proposed project driveways. Therefore, the project would have a less than significant impact with mitigation measures incorporated.

Mitigation Measures

TR-1 Site Access Accommodation

The following improvements are necessary to accommodate site access.

1. Driveway 1 & Foothill Boulevard: A stop sign shall be installed on the southbound approach and construct a southbound right turn lane. Driveway 1 shall be designed to restrict access to right-in/right-out only.
2. Driveway 2 & Foothill Boulevard: A stop sign shall be installed on the southbound approach and construct a shared left-through-right turn lane. Driveway 2 shall align with an existing driveway on the south side of Foothill Boulevard and shall allow for full access.

TR-2 Foothill Boulevard Modification

Foothill Boulevard is an east-west oriented roadway located along the southern boundary of the project site. Foothill Boulevard shall be constructed to its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western boundary of the project site to the eastern boundary of the project site, consistent with the City's standards.

Significance After Mitigation

Mitigation Measures TR-1 and TR-2 would ensure safe and adequate site access and ultimate buildout of the portion of Foothill Boulevard fronting the project site pursuant to City standards, respectively.

Incorporation of Mitigation Measures TR-1 and TR-2 would ensure project impacts are less than significant.

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d. Would the project result in inadequate emergency access?

The project would not involve off-site improvements to travel lanes of public streets or modify any existing emergency access route in a way that would result in inadequate emergency access. Proposed vehicle circulation on the project site would provide adequate width and turn radius for emergency vehicles, and project site plans would be reviewed and approved by RFD prior to construction. Therefore, the project's potential impacts related to emergency access would be less than significant, and no mitigation measures would be required.

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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:				
a. 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)?	☐	■	☐	☐
b. 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

Tribal Cultural Resources Setting

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. 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

2. 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 these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

On July 16, 2021, a Sacred Lands File (SLF) search and AB 52 specific contact list of Native Americans culturally affiliated with the project area was requested from the Native American Heritage Commission (NAHC) for the purposes of initiating AB 52 consultation for the project. The NAHC responded on August 3, 2021, and indicated the SLF search was "negative", meaning the NAHC did not identify a potentially significant tribal cultural resource in the vicinity of the project area. The NAHC also provided a list of 6 contacts from 6 tribal organizations who have ancestral ties to the project area. As part of the AB 52 consultation process, the City will prepare and send letters to the 6 NAHC-listed Native American contacts to request information on potential tribal cultural resources in the project vicinity that may be impacted by project development. Under AB 52, tribes have 30 days to respond in writing and request further project information and formal consultation. Native American tribes that will be provided with AB 52 consultation letters include the following list of recipients:

- Gabrieleño Band of Mission Indians – Kizh Nation
- Gabrieleño-Tongva San Gabriel Band of Mission Indians
- Gabrieliño-Tongva Nation
- Gabrieliño-Tongva Tribe
- Morongo Band of Mission Indians
- San Manuel Band of Mission Indians

At the time of this reporting, no known sacred sites or tribal cultural resources have been specifically identified within the project site or vicinity; however, AB 52 consultation has yet to be initiated.

On October 4, 2021, the above tribes were sent a request for consultation. On October 12, 2021, the tribe Gabrieleno Band of Mission Indians - Kizh Nation responded with the request to consult.

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

Although no tribal cultural resources have been specifically identified within the project site, there is the possibility of encountering undisturbed subsurface tribal cultural resources. The proposed ground disturbance at the project site could potentially result in significant impacts on unanticipated tribal cultural resources. Mitigation Measures TCR-1 through TCR-3 identified below would reduce impacts on unidentified tribal cultural resources to a less than significant level.

Mitigation Measure

TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The project applicant/lead agency shall retain a Native American monitor from (or approved by) the Gabrieleño Band of Mission Indians – Kizh Nation (the "Kizh" or the "Tribe") - the direct lineal descendants of the project location. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project, at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" includes, but is not limited to, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

B. A copy of the executed monitoring agreement shall be provided to the lead agency prior to the earlier of the commencement of any ground-disturbing activity for the project, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The project applicant/developer shall provide the Tribe with a minimum of 30 days advance written notice of the commencement of any project ground-disturbing activity so that the Tribe has sufficient time to secure and schedule a monitor for the project.

D. The project applicant/developer shall hold at least one (1) pre-construction sensitivity/educational meeting prior to the commencement of any ground-disturbing activities, where at a senior member of the Tribe will inform and educate the project's construction and managerial crew and staff members (including any project subcontractors and consultants) about the TCR mitigation measures and compliance obligations, as well as places of significance located on the project site (if any), the appearance of potential TCRs, and other informational and operational guidance to aid in the project's compliance with the TCR mitigation measures.

E. The monitor shall complete daily monitoring logs that will provide descriptions of the relevant ground disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request.

F. Native American monitoring for the project shall conclude upon the latter of the following: (1) written confirmation from a designated project point of contact to the Tribe that all ground-disturbing activities and all phases that may involve ground-disturbing activities on the project site and at any off-site project location are complete; or (2) written notice by the Tribe to the

project applicant/lead agency that no future, planned construction activity and/or development/construction phase (known by the Tribe at that time) at the project site and at any off-site project location possesses the potential to impact TCRs.

TCR-2 Unanticipated Discovery of Tribal Cultural Resources, Human Remains, and/or Grave Goods

A. Upon the discovery of a TCR, all construction activities in the immediate vicinity of the discovery (i.e., not less than the surrounding 50 feet) shall cease. The Tribe shall be immediately informed of the discovery, and a Kizh monitor and/or Kizh archaeologist will promptly report to the location of the discovery to evaluate the TCR and advise the project manager regarding the matter, protocol, and any mitigating requirements. No project construction activities shall resume in the surrounding 50 feet of the discovered TCR unless and until the Tribe has completed its assessment/evaluation/recovery of the discovered TCR and surveyed the surrounding area.

B. The Tribe shall recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate in its sole discretion, and for any purpose the Tribe deems appropriate, including but not limited to, educational, cultural and/or historic purposes.

C. If Native American human remains and/or grave goods are discovered or recognized on the project site or at any off-site project location, then all construction activities shall immediately cease. Native American "human remains" are defined to include "an inhumation or cremation, and in any state of decomposition or skeletal completeness." (Pub. Res. Code § 5097.98 (d)(1).) Funerary objects, referred to as "associated grave goods," shall be treated in the same manner and with the same dignity and respect as human remains. (Pub. Res. Code § 5097.98 (a), d)(1) and (2).)

D. Any discoveries of human skeletal material or human remains shall be immediately reported to the County Coroner (Health & Safety Code § 7050.5(c); 14 Cal. Code Regs. § 15064.5(e)(1)(B)), and all ground-disturbing project ground-disturbing activities on site and in any other area where the presence of human remains and/or grave goods are suspected to be present, shall immediately halt and remain halted until the coroner has determined the nature of the remains. (14 Cal. Code Regs. § 15064.5(e).) If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

E. Thereafter, construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or grave goods, if the Tribe determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Tribal monitor and/or archaeologist deems necessary). (14 Cal. Code Regs. § 15064.5(f).)

F. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or grave goods.

G. Any historic archaeological material that is not Native American in origin (non-TCRs) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

H. Any discovery of human remains and/or grave goods discovered and/or recovered shall be kept confidential to prevent further disturbance.

TCR-3 Procedures for Burials, Funerary Remains, and Grave Goods

A. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented for all discovered Native American human remains and/or grave goods. Tribal Traditions include, but are not limited to, the preparation of the soil for burial, the burial of funerary objects and/or the deceased, and the ceremonial burning of human remains.

B. If the discovery of human remains includes four (4) or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

C. The prepared soil and cremation soils shall be treated in the same manner as bone fragments that remain intact. Associated "grave goods" (aka, burial goods or funerary objects) are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later, as well as other items made exclusively for burial purposes or to contain human remains. Cremations will either be removed in bulk or by means necessary to ensure complete recovery of all sacred materials.

D. In the case where discovered human remains cannot be fully recovered (and documented) on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to divert the project while keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. The site of reburial/repatriation shall be agreed upon by the Tribe and the landowner, and shall be protected in perpetuity.

F. Each occurrence of human remains and associated grave goods shall be stored using opaque cloth bags. All human remains, grave goods, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items will be retained and shall be reburied within six months of recovery.

G. The Tribe shall work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

Significance After Mitigation

Mitigation Measures TCR-1 through TCR-3 would ensure that any tribal cultural resources, human remains, or grave goods encountered during proposed project construction are appropriately

assessed and evaluated, and, if possible, preserved. Mitigation Measures TCR-1 through TCR-3 would reduce impacts to tribal cultural resources to a less than significant level.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
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?	☐	☐	■	☐
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?	☐	☐	■	☐
e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

a. Would the project 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 facilities, the construction or relocation of which could cause significant environmental effects?

c. Would the project 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?

The City of Rialto Water Resources Division manages the wastewater collection system, and the project site is within the City's existing service area. All the wastewater flows are collected by the city's local sewer mains and delivered to the Rialto Wastewater Treatment Plant (WWTP) located on

Rancho Avenue for wastewater treatment. The WWTP has a design capacity of approximately 12 million gallons per day (mgd). The WWTP is permitted by the State of California under NPDES Permit CA0105295 which allows up to 11.7 mgd discharge of tertiary treated and disinfected water to the Santa Ana River at three points. Rialto produces approximately 7 to 8 mgd of wastewater.

Conservatively assuming that wastewater generation is 100 percent of water demand, the project would generate an estimated 21.7 million gallons of wastewater per year, or 0.06 mgd. The project's wastewater generation would account for approximately 0.7 to 0.8 percent of the city's daily wastewater output. Therefore, implementation of the project would not exceed WWTP's capacity, and no relocation or expansion of existing facilities would be required. The project would have a less than significant impact on wastewater generation and treatment, and no mitigation measures would be required.

The project would be served by Southern California Edison for electricity needs and Southern California Gas Company for natural gas needs. The project includes connections and extensions to existing electric and natural gas infrastructure to serve the proposed residential use, and no relocation or construction of new electrical or natural gas infrastructure would be necessary. Therefore, the project would have a less than significant impact on electrical and natural gas infrastructures, and no mitigation measures would be required.

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b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The City of Rialto, Rialto Utility Authority (RUA), and Rialto Water Services (RWS) former a public-private partnership to provide water and wastewater services to over 100,000 people in the Inland Empire. RWS contracts with Veolia North America (VNA) to operate the water and wastewater systems. The City retains full ownership of the water and wastewater systems, retains all water rights and supply, and possesses the rate-setting authority associated with the facilities, while RWS provides financial backing, oversight and concession services; VNA delivers all water and wastewater services (including billing and customer service), and oversees a $41 million capital improvement program to upgrade aging facilities (RWS 2020). The capital improvement program includes seismic retrofits, and improvements to the water supply and wastewater capacity.

Rialto is expected to experience moderate increases in water consumption due to population growth and implementation of water conservation efforts. The 2015 water demand for the city was an estimated 8,771 acre feet per year (AFY), or approximately 7.8 mgd. The city's water demand is forecast to increase to 13,330 AFY, or approximately 11.9 mgd, by 2040; while supply is anticipated to increase to 13,600 acre AFY, or approximately 12.1 mgd, by 2040 which would meet anticipated growth in demand (Water Systems Consulting, Inc. 2015).

According to CalEEMod results, the project would result in a water demand of 21.7 million gallons per year, or approximately 59,372 gallons per day. The project's anticipated daily water demand would account for less than one percent of the 2040 forecast water demand and anticipated supply. Furthermore, Rialto maintains a number of interconnections with neighboring agencies that could be used to provide supplemental water during short-term reduction in supply through existing mutual aid agreements with the City of San Bernardino, Fontana Water, Riverside-Highland, and West Valley Water District (Water Systems Consulting, Inc. 2015). Therefore, existing water infrastructure and supplies would be adequate to serve the anticipated residents of the project, and the project's impact on water supply would be less than significant. No mitigation measures would be required.

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d. Would the project 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?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid waste from Rialto is transported to and disposed of at the Mid-Valley Sanitary Landfill. The landfill has a maximum permitted daily capacity of 7,500 tons per day, remaining capacity of 61.2 million tons, and has an expected operational life through 2045 (CalRecycle 2019).

According to CalEEMod results for the project (Appendix B), the project would generate approximately 94 tons of solid waste per year, or approximately 0.3 tons per day. This represents approximately 0.003 percent of the estimated available daily capacity at the Mid-Valley Sanitary Landfill which serves the city. Therefore, the project would not generate solid waste in excess of State or local standards, or the existing capacity of local landfill infrastructure. The project would have a less than significant impact on solid waste management infrastructures, and no mitigation measures would be required.

Furthermore, the project is subject to AB 1327, Chapter 19, Solid Waste Reuse and Recycling Access Act of 1991, which requires the provision of adequate areas for collecting and loading recyclable materials. Proposed site plans indicate the provision of secured trash enclosures on-site, and the project would conform to the City's requirements to ensure compliance with AB 1327. Therefore, the project would have a less than significant impact on solid waste, and no mitigation measures would be required.

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially 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 or ongoing impacts to the environment?	☐	☐	■	☐
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, 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. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As stated in Section 9, *Hazards and Hazardous Materials*, the project would increase traffic around the project site and vicinity due to the addition of up to 808 residents. However, the project would not result in any changes to the existing street network that could impede emergency access or evacuation.

The project site is relatively flat and is within an urbanized area; as such, there are no wildlands in the vicinity of the project site that would contribute to wildfire conditions. The project site and vicinity are not identified as a Very High Fire Hazard Severity Zone by CALFIRE (CalOES 2015). Implementation of the project would not significantly increase exposure of people or structures to a significant risk of loss, injury, or death involving wildfires. The project would not require installation or maintenance of associated infrastructures to prevent wildfires. Existing project site topography would not expose people or structures to subsequent downstream flooding or landslides resulting from wildfires. Therefore, the project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. 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, substantially 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?	☐	■	☐	☐
b. 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)?	☐	■	☐	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

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, substantially 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?

While the project site does not contain suitable habitat for special status species, the possibility exists for construction activities to have direct or indirect impacts on such species which may temporarily occupy or traverse the project site. Furthermore, construction activities such as building demolition, vegetation removal, grading, or building construction, could result in direct impacts to Burrowing Owl species or nesting migratory bird species. The Initial Study incorporates mitigation measures targeted at protecting biological resources (MM BIO-1 and MM BIO-2). These measures include conducting presence/absence surveys for sensitive owl species prior to construction and pre-construction nesting

bird surveys. Potential degradation of the quality of the environment would be reduced to below a level of significance through implementation of Mitigation Measures MM BIO-1 and MM BIO-2, as identified in the *Biological Resources* Section.

The project site is not located in a historic district and does not contain any historical resources. Although no archaeological resources were identified, there remains the potential to encounter unanticipated archaeological resources during ground-disturbing activities associated with project construction. Implementation of Mitigation Measure MM CR-1, as identified in the *Cultural Resources* Section, would reduce potential impacts to archaeological resources to a less-than-significant level by providing direction on how to properly address an unanticipated discovery of cultural and archaeological resources should one occur during construction. As discussed in the *Tribal Cultural Resources* Section, the project site could potentially contain unanticipated tribal cultural resources. Mitigation Measures MM TCR-1 through MM TCR-3 would reduce impacts to tribal cultural resources, human remains, and grave goods to a less than significant level. This impact would be less than significant with mitigation incorporated.

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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)?

As described in the discussion of environmental checklist Sections 1 through 20, the project would contribute to potentially significant traffic impacts at certain intersections and Mitigation Measure MM TR-1 and MM TR-2. As described in the *Traffic* Section would bring these traffic impacts to below a significant level. In addition, the project may have archaeological, or tribal cultural resources that may be uncovered during grading activities. However, with implementation of Mitigation Measures CR-1 and TCR-1 through TCR-3, as identified in the *Cultural Resources* and *Tribal Cultural Resources* sections, potential impacts would be reduced to a less-than-significant level by providing direction on how to properly address an unanticipated discovery of cultural, tribal cultural, and archaeological resources should it occur during construction.

Resource issue areas that were determined to have no impact would not have potential to be cumulatively considerable, and the project would not contribute to cumulative impacts related to these issues.

Resource issue areas that are project-specific by nature, such as geology and hazards, would not have substantial contributions to the cumulative scenario, as impacts at one location do not add to impacts at other locations or create additive impacts. Furthermore, future projects in the vicinity of the project site would be required to undergo the appropriate level of environmental review and mitigate potential impacts, as necessary. This impact would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As discussed in Section 3, *Air Quality*, the project would result in less than

significant impacts related to emissions of criteria pollutants, toxic air contaminants, or odors. As detailed in Section 9, *Hazards and Hazardous Materials,* the project would not result, either directly or indirectly, in significant adverse impacts related to hazardous materials. Residential uses, as proposed under the project, are not associated with substantial emissions of hazardous materials, and impacts related to other hazards, including wildfire or an airport, would be less than significant. As discussed in Section 13, *Noise,* impacts would be less than significant. In addition, compliance with applicable rules and regulations and mitigation measures contained in this document would reduce potential impacts on human beings. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Rialto. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Christian Nordal, Biologist
Jacob Cisneros, Sustainability Associate

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Appendix A

Project Site Plans

Site Summary:

Total Homes : 204

Gross Site Area : ± 8.02 Acres
Gross Density : ± 25.4 Homes per Acre

Net Site Area : ± 7.66 Acres
Net Density : ± 26.6 Homes per Acre

Unit Mix:

1BR	:	93 (45.6%)
2BR	:	90 (44.1%)
3BR	:	21 (10.3%)
Total	:	204

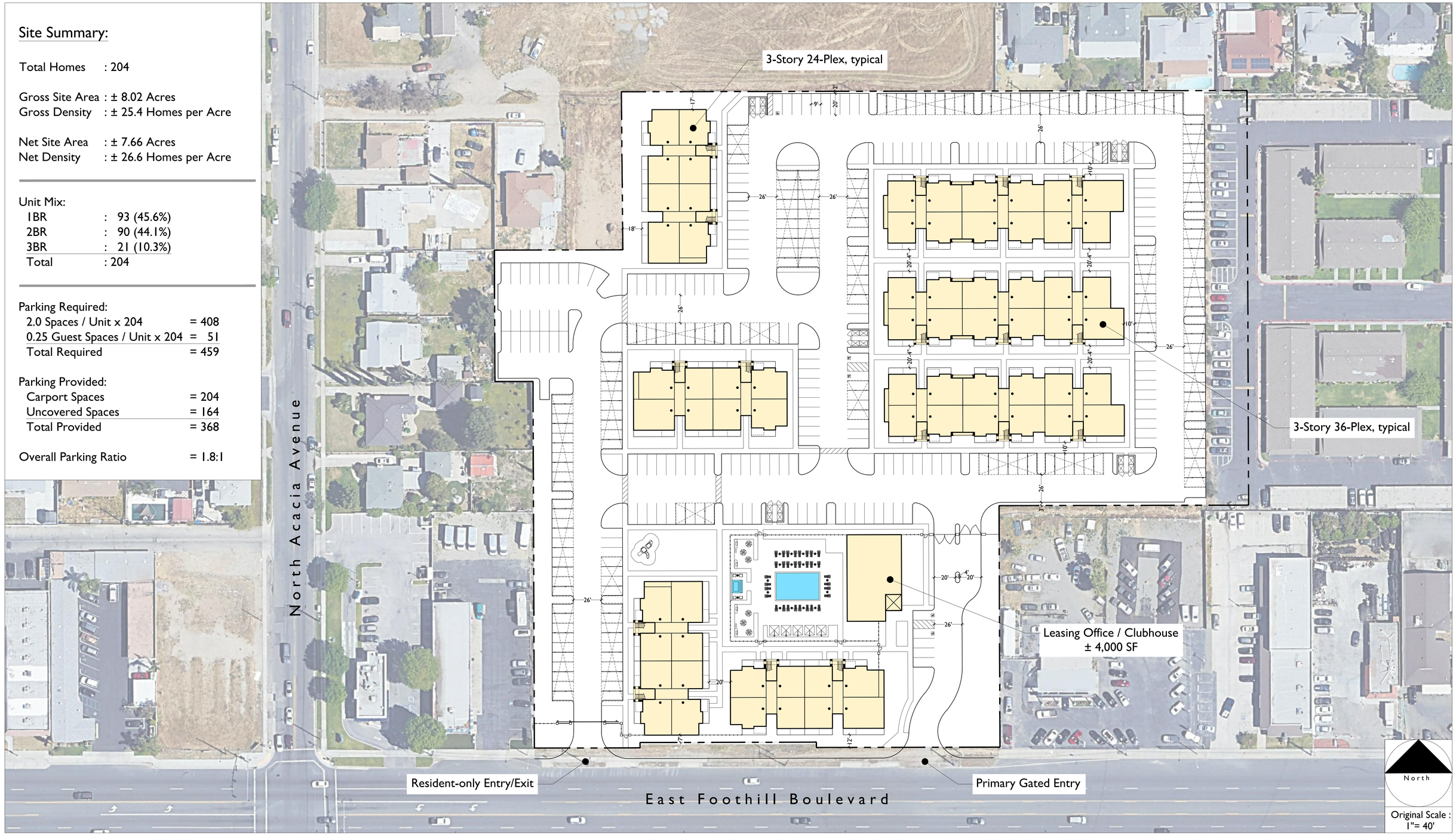
Parking Required:

2.0 Spaces / Unit x 204	= 408
0.25 Guest Spaces / Unit x 204	= 51
Total Required	= 459

Parking Provided:

Carport Spaces	= 204
Uncovered Spaces	= 164
Total Provided	= 368

Overall Parking Ratio = 1.8:1



INFORMATIONAL SITE PLAN : B

534 FOOTHILL BOULEVARD

Rialto, California

0 20 40 80
SCALE: 1" = 40'-0"

881.21121

06.15.21

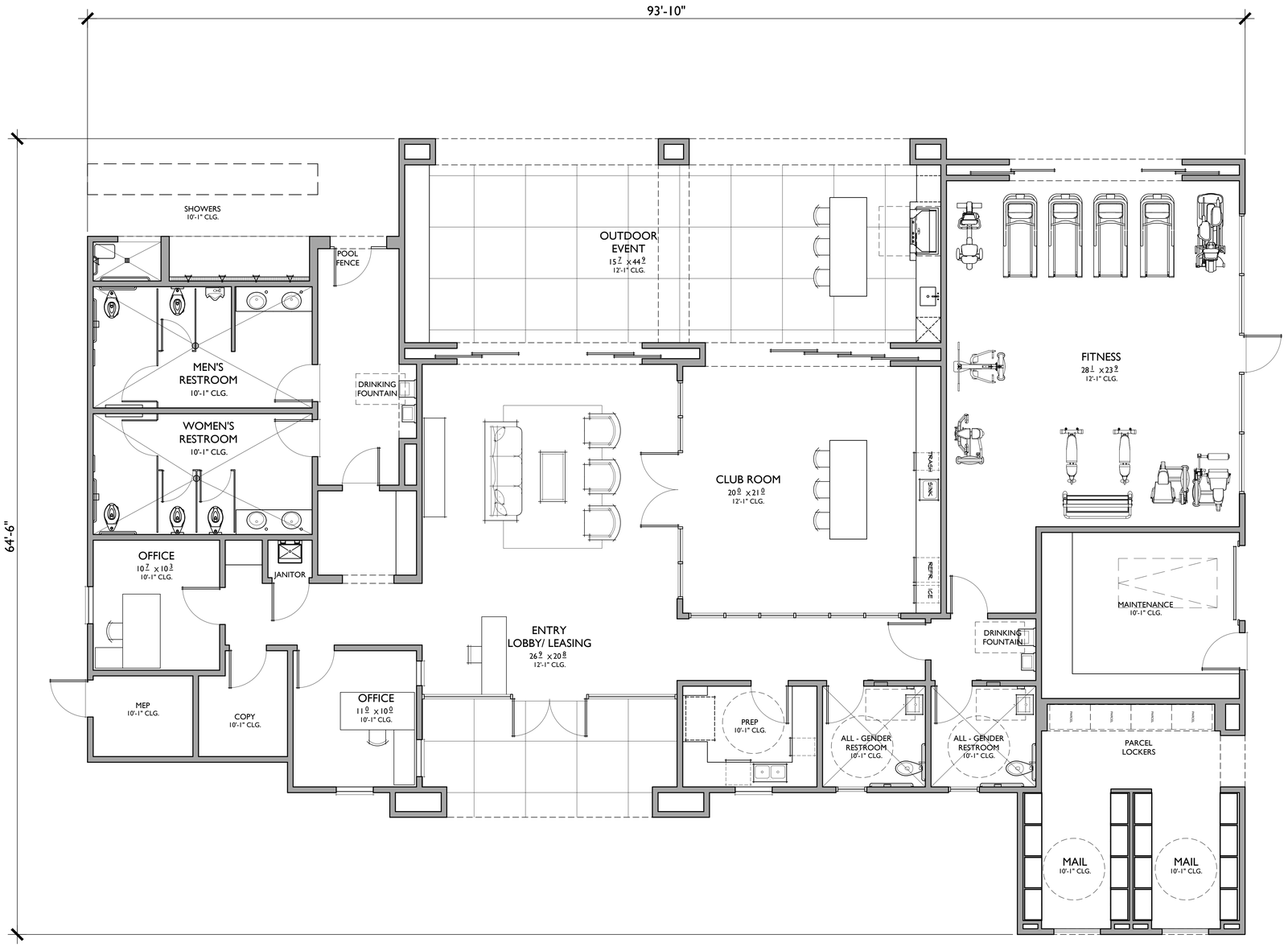
Note:
This yield study is for the purpose of estimating the maximum density of a residential product type on a site of a given configuration. If specific entitlement requirements differ from the criteria shown on the plan (such as setbacks, minimum lot sizes, street standards, retention requirements, etc.) then the actual possible density may vary substantially.

Bassenian | Lagoni
ARCHITECTURE • PLANNING • INTERIORS

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FRONTIER COMMUNITIES



FLOOR AREA TABLE

CONDITIONED SPACE	3236 SQ. FT.
COVERED OUTDOOR	0 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

Bassenian | Lagoni
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RECREATION CENTER
Floor Plan

RIALTO FOOTHILL APARTMENTS
Rialto , California

0 2 4 8

881.21241

A5.1
09.02.21

FRONTIER COMMUNITIES

LEGEND

1. Foothill Blvd Parkway Treatment Per "Foothill Blvd Specific Plan"
   - Landscape mesh screen
   - Paver form tree wells @ 40' o.c.
   - Colored concrete parkway throughout
2. Main Entry
   - Decorative unit pavers
   - Center directory
   - Spanish themed vehicular gates
   - Dry fountain in entry plaza
3. Pool Area
   - Large central lap pool
   - Decorative concrete sun deck
   - Colorful cantilevered umbrellas over synthetic turf
   - Spa with tile mural backdrop wall
   - Separate yoga lawn outside fitness room
4. Outdoor Kitchen
   - (2) grills w/ concrete countertop
   - Table seating
   - Wood trellis above
5. Tot Lot Area
   - Rubble surface w/ play equipment for 5–12-year-olds
   - Framed by hedges
   - Shaded by 4 large canopy trees
6. Enclosed Dog Park
   - Double trap entry gate
   - Synthetic turf
7. Entry / BBQ Nodes (2 locations)
   - Enhanced terra cotta tile paving
   - Spanish themed pilaster & seat wall
   - Pedestal BBQ
   - Table seating for 2



TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
TREES			
	Aloe 'Hercules'	Hercules Aloe	15 Gal
	Citrus sinensis	Orange Tree	15 Gal
	Strelitzia nicholai	Giant Bird-of-Paradise	15 Gal
	Acacia smallii	Sweet Acacia	24" Box
	Geijera parviflora	Australian Willow	24" Box
	Magnolia grandiflora 'Little Gem'	Southern Magnolia	24" Box
	Tristania conferta	Brisbane Box	24" Box
	Cercidium hybrid 'Desert Museum'	Hybrid Palo Verde	36" Box
	Chitalpa tashkentensis 'Pink Dawn'	Chitalpa	24" Box
	Cupaniopsis anacardioides	Carrotwood	24" Box
	Cupressus sempervirens	Italian Cypress	24" Box
	Magnolia grandiflora 'D.D. Blanchard'	Southern Magnolia	24" Box
	Olea europaea	Olive	Field Grown 14' x 14'
	Tipuana tipu	Tipu Tree	24" Box
	Designated Street Tree for Foothill		24" Box
PALMS			
	Chamaerops humilis	Mediteranean Fan Palm	24"B
	Phoenix dactylifera	Date Palm	15' - 20' HT.
	Washington robusta	Mexican Fan Palm	15' - 20' HT.

SHRUB LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME
	SHRUBS	
	Agave 'Blue Flame'	**Blue Flame Agave**
	Agave desmettiana	**Dwarf Century Plant**
	Agave weberi	**Weber's Century Plant**
	Aloe arborescens	**Tree Aloe**
	Bougainvillea 'La Jolla'	**Bougainvillea**
	Buxus microphylla japonica	**Japanese Boxwood**
	Carex divulsa	**Berkeley Sedge**
	Carissa grandiflora 'Green Carpet'	**Natal Plum**
	Chondropetalum tectorum	**Cape Rush**
	Citrus Kumquat Hybrid 'Tavares'	**Kumquat**
	Dianella revoluta 'DR5000'	**Little Rev Flax Lily**
	Dianella tasmanica 'Silver Streak'	**Silver Streak Flax Lily**
	Ilex crenata 'Sky Pencil'	**Sky Pencil Ilex**
	Lantana hybrids 'New Gold'	**New Gold Lantana**
	Ligustrum japonicum 'Texanum'	**Wax Leaf Privet**
	Lomandra longifolia 'LM300'	**Breeze Dwarf Mat Rush**
	Moraea bicolor	**Fortnight Lily**
	Muhlenbergia rigens	**Deer Grass**
	Olea europaea 'Montra' P.P.#6266	**Little Ollie Dwarf Olive**
	Pennisetum 'Fairy Tails'	**Fairy Tails Fountain Grass**
	Pittosporum tobira 'Wheeleri'	**Wheeler's Dwarf Tobira**
	Podocarpus elongatus 'Monmal'	**Icee Blue Yellow-Wood**
	Portulacaria afra	**Elephant's Food**
	Rhaphiolepis indica 'Spring Time'	**Indian Hawthorne**
	Rosa f. 'Trumpeter'	**Trumpeter Rose**
	Senecio mandraliscae	**Blue Chalk Sticks**
	Stipa tenuissima	**Mexican Feather Grass**
	Strelizia reginae	**Bird-of-Paradise**
	Yucca recurvifolia	**Pendulous Yucca**

L1

PRELIMINARY LANDSCAPE PLAN

RIALTO FOOTHILL APARTMENTS

RIALTO, CALIFORNIA

FRONTIER COMMUNITIES
2151 E. Convention Center Way, Suite 114
Ontario, CA 91764

SCALE 1"=30'

SITESCAPES
Landscape Architecture & Planning
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JOB# 21-038
DATE: 08-31-2021

Appendix B

Air Quality and Greenhouse Gas Study



543 Foothill Boulevard Project

Air Quality and Greenhouse Gas Study

prepared for

Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764

prepared by

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

September 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Appendices

Appendix A Project Site Plans
Appendix B Air Quality and Greenhouse Gas Modeling Results

1 Project Description and Impact Summary

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) impacts of the proposed 543 Foothill Boulevard Project (herein referred to as "proposed project" or "project") in Rialto, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to Frontier Enterprises for the City of Rialto to use in support of the environmental documentation being prepared under the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the project's air quality and GHG impacts related to both temporary construction activity and long-term operation of the project. The conclusions of this study are summarized in Table 1.

Table 1 Summary of Impacts

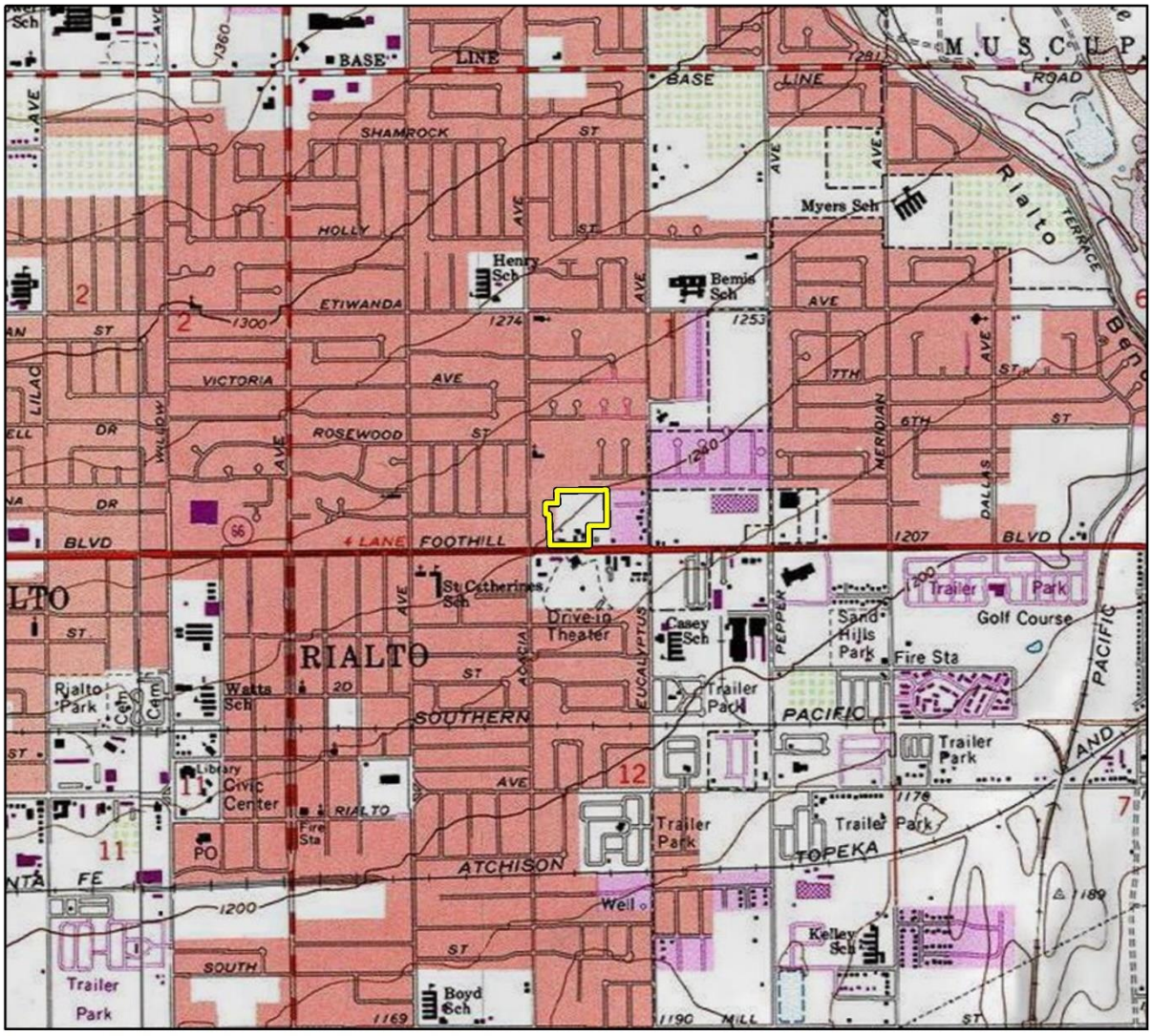
Impact Statement	Proposed Project's Level of Significance
Air Quality	
Conflict with or obstruct implementation of the applicable air quality plan?	Less than significant impact
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	Less than significant impact
Expose sensitive receptors to substantial pollutant concentrations?	Less than significant impact
Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No impact
Greenhouse Gas Emissions	
Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than significant impact
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs	Less than significant impact

1.2 Project Summary

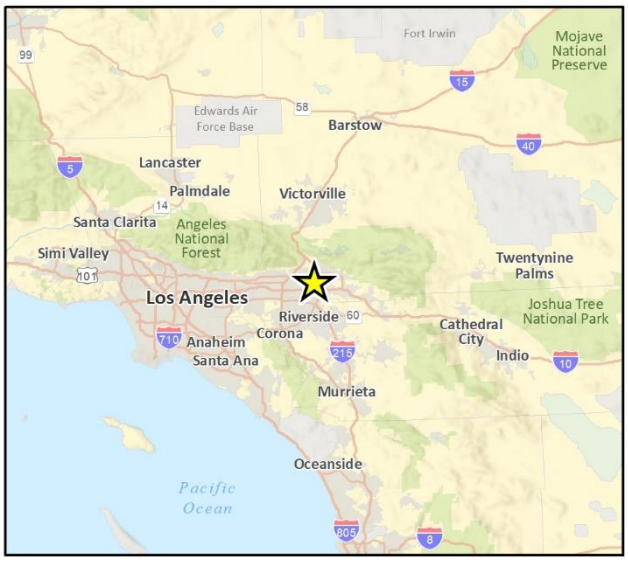
Project Location

The 8.3-acre project site is a vacant lot located on the north side of East Foothill Boulevard, west of Eucalyptus Avenue, and east of North Acacia Avenue at 534 Foothill Boulevard in the City of Rialto, San Bernardino County. The project site is composed of Assessor's Parcel Cumbers (APNs) 013317120, 013317109, 013317108, 013317107, and 013317131. The project site is zoned Multiple Dwelling (R3) and has a General Plan land use designation of Specific Plan Overlay within the Foothill Boulevard Specific Plan Area. According to the Specific Plan, the project site is designated as Residential-Mixed Use (R-MU). See Figure 1 and Figure 2 for the project site location in a regional context and local context, respectively.

Figure 1 Regional Location



Basemap provided by National Geographic Society, Esri and their licensors © 2021. San Bernardino South Quadrangle. T01S R05W S01. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.



Project Location

0 1,000 2,000 Feet

N

CRFig 1 Proj Locn Map

Figure 2 Project Site Location



Imagery provided by Microsoft Bing and its licensors © 2021.

The project site is located in an urbanized area. Existing uses adjacent to the project site include commercial uses (retail, auto-oriented services, food service) and single- and multi-family residential. All of the properties adjacent to the project site are located in the Foothill Boulevard Specific Plan area.

Project Description

The 534 Foothill Boulevard Project (project) proposes the development of 204 multi-family residential units comprised of six three-story buildings. The project also includes construction of a 4,000-square-foot leasing office and clubhouse building with a recreational pool and barbeque area for residential use. A total of 368 parking spaces would be provided with 204 covered carport spaces and 164 uncovered parking spaces. The project would include sustainability features such as water efficient fixtures, water efficient irrigation systems, and energy efficient appliances and fixtures. Refer to Appendix A for the project plans.

Project construction is expected to commence in July 2022 and be completed by October 2024. Based on data provided by Frontier Enterprises, site preparation and grading would occur over approximately four months; building construction and architectural coating would occur over approximately 24 months; and paving would occur over approximately six weeks. Construction activities would occur five days a week. Total grading for the proposed project is estimated to require 23,000 cubic yards (cy) of cut soil, which would be used as fill with an additional 5,000 cy imported for fill. No soil will be exported.

2 Air Quality

2.1 Environmental and Regulatory Setting

2.1.1 Local Climate and Meteorology

The project site is in the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality in the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions in the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

2.1.2 Air Quality Regulation

Federal and California Clean Air Acts

The federal and state governments have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (USEPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent within the California Environmental Protection Agency (CalEPA). County-level air districts provide local management of air quality. CARB has established air quality standards and is responsible for the control of mobile emission sources, while the local air districts are responsible for enforcing standards and regulating stationary sources. CARB has established 15 air basins statewide, including the SCAB.

The USEPA has set primary national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with diameters of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), and lead. Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, California has established health-based ambient air quality standards (known as the California ambient air quality standards [CAAQS]) for these and other pollutants, some of which are more stringent than the federal standards. Table 2 lists the current federal and state standards for regulated pollutants.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standards
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
CO	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
NO_2	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
SO_2	Annual	.030 ppm	–
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
$PM_{2.5}$	Annual	12 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–
Visibility Reducing Particles	8-Hour	–	Extinction of 0.23 per kilometer
Sulfates	24-Hour	–	25 µg/m^3
Hydrogen Sulfide	1-Hour	–	0.03 ppm (42 µg/m^3)
Vinyl Chloride	24-Hour	–	0.01 ppm (26 µg/m^3)

ppm = parts per million; µg/m^3 = micrograms per cubic meter
Source: CARB 2016

The SCAQMD is the designated air quality control agency in the SCAB, which is a non-attainment area for the federal standards for ozone and $PM_{2.5}$ and the state standards for ozone, PM_{10}, and $PM_{2.5}$. The SCAB is designated unclassifiable or in attainment for all other federal and state standards.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the U.S. EPA and the National Highway Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The Part One Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California. On April 30, 2020, the U.S. E.PA and the National Highway Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and carbon dioxide emissions standards for passenger cars and trucks of model years 2021-2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020). To account for the effects of the SAFE Vehicles Rule, CARB released off-model adjustment factors to adjust criteria air pollutant emissions outputs from the EMFAC model.

Air Quality Management Plan

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which its jurisdiction is in non-compliance. Each iteration of the SCAQMD's Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal eight-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Governments' (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP.[1] The 2016 AQMP builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also demonstrates strategies for attainment of the new federal eight-hour ozone standard and vehicle miles travelled emissions offsets, pursuant to recent USEPA requirements (SCAQMD 2017).

Rialto General Plan

Goal 2-34: Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction.

> **Policy 2-34.2:** Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills.
>
> **Policy 2-34.3**: Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.

Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City.

> **Policy 2-35.2:** Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.
>
> **Policy 2-35.4**: Require new development and significant redevelopment proposals to incorporate sufficient design and operational controls to prevent release of noxious odors beyond the limits of the development site.

Goal 2-36: Reduce the amount of fugitive dust released into the atmosphere.

> **Policy 2-36.1**: Put conditions on discretionary permits to require fugitive dust controls.

[1] On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). However, the 2016 AQMP was adopted prior to this date and relies on the demographic and growth forecasts of the 2016-2040 RTP/SCS; therefore, these forecasts are utilized in the analysis of the project's consistency with the AQMP.

2.1.3 Air Pollutants of Primary Concern

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include CO, NO_2, PM_{10}, $PM_{2.5}$, SO_2, and lead. Ozone is considered a secondary criteria pollutant because it is created by atmospheric chemical and photochemical reactions between volatile organic compounds (VOC) and nitrogen oxides (NO_X). The following subsections describe the characteristics, sources, and health and atmospheric effects of critical air contaminants.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and VOC.[2] Nitrogen oxides are formed during the combustion of fuels, while VOC are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it usually occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. It can also contribute to the formation of ozone/smog and acid rain.

Sulfur Dioxide

Sulfur dioxide is a colorless, pungent, irritating gas formed primarily by the combustion of sulfur-containing fossil fuels. When SO_2 oxidizes in the atmosphere, it forms sulfur trioxide. Collectively, these pollutants are referred to as sulfur oxides (SO_X). In humid atmospheres, SO_2 can also form

[2] Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, two groups are important from an air quality perspective: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC). SCAQMD uses the term VOC to denote organic precursors.

sulfuric acid mist, which can eventually react to produce sulfate particulates that can inhibit visibility. Combustion of high sulfur-content fuels is the major source of SO_2, while chemical plants, sulfur recovery plants, and metal processing are minor contributors. At sufficiently high concentrations, SO_2 irritates the upper respiratory tract. At lower concentrations, when in conjunction with particulates, SO_2 appears to do still greater harm by injuring lung tissues. This compound also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. Sulfur dioxide causes respiratory irritation, including wheezing, shortness of breath, and coughing. Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease. Sulfur oxides, in combination with moisture and oxygen, can yellow leaves on plants, dissolve marble, and eat away iron and steel.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM_{10} (small particulate matter that measures no more than 10 microns in diameter) and $PM_{2.5}$ (fine particulate matter that measures no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer $PM_{2.5}$ particulates are generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. Lead occurs in the atmosphere as particulate matter. The major sources of lead emissions historically have been mobile and industrial sources. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA completed the ban prohibiting the use of leaded gasoline in highway vehicles in December 1995. As a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries in part due to national emissions standards for hazardous air pollutants (USEPA 2013). As a result of phasing out leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in the air are generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. Lead may cause a range of health effects, including anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases). The proposed project does not include any stationary sources of lead emissions.

Therefore, implementation of the project would not result in substantial emissions of lead, and this pollutant is not discussed further in this analysis.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM; CARB 2021a). TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.1.4 Current Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and to determine whether ambient air quality meets the NAAQS and CAAQS. The monitoring station closest to the project site is the San Bernardino-4th Street station located at 24302 East 4th Street in San Bernardino, approximately 5.0 miles east of the project site. This station measures concentrations of ozone, CO, NO_2, PM_{10}, $PM_{2.5}$, and lead. However, it does not measure concentrations of SO_2. Therefore, SO_2 data was sourced from the next nearest monitoring station, which is the Fontana-Arrow Highway station located at 14360 Arrow Boulevard in Fontana, approximately 7.5 miles west of the project site. Table 3 indicates the number of days that the NAAQS and CAAQS has been exceeded at these stations in each of the last three years. As shown therein, daily exceedances of the eight-hour ozone CAAQS and NAAQS occurred on 112 days in 2017, 102 days in 2018, and 96 days in 2019. Daily exceedances of the worst-hour ozone CAAQS occurred on 81 days in 2017 and 63 days in both 2018 and 2019. Daily exceedances of the worst-hour ozone NAAQS occurred on 14 days in 2017, seven days in 2018, and two days in 2019. Daily exceedances of the CAAQS for PM_{10} occurred on 14 days in 2017, five days in 2018, and four days in 2019, and daily exceedances of the NAAQS for PM_{10} occurred on one day in 2017. Daily exceedances of the NAAQS for $PM_{2.5}$ occurred on one day in 2017 and one day in 2019. The CAAQS or NAAQS for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead were not exceeded at these monitoring stations in the last three years.

Table 3 Ambient Air Quality at the Nearest Monitoring Stations

Pollutant	2017	2018	2019
Ozone (ppm), Eight-Hour Average[1]	0.136	0.116	0.114
Number of days above CAAQS (>0.070 ppm)	112	102	96
Number of days above NAAQS (>0.070 ppm)	112	102	96
Ozone (ppm), Worst Hour[1]	0.158	0.138	0.127
Number of days above CAAQS (>0.09 ppm)	81	63	63
Number of days above NAAQS (>0.12 ppm)	14	7	2
Carbon Monoxide (ppm), Highest 8-Hour Average[1]	2.3	2.5	1.1
Number of days above CAAQS or NAAQS (>9.0 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst Hour[1]	0.0658	0.057	0.0593
Number of days above CAAQS (>0.180 ppm)	0	0	0
Number of days above NAAQS (>0.100 ppm)	0	0	0
Sulfur Dioxide (ppm), Worst Hour[2]	3.9	2.9	2.4
Number of days above CAAQS (>0.25 ppm) [2]	0	0	0
Number of days above NAAQS (>0.075 ppm) [2]	0	0	0
Particulate Matter <10 microns (μg/m^3), Worst 24 Hours[1]	157.8	130.2	112.7
Number of days above CAAQS (>50 μg/m^3)	14	5	4
Number of days above NAAQS (>150 μg/m^3)	1	0	0
Particulate Matter <2.5 microns (μg/m^3), Worst 24 Hours[1]	38.2	30.1	60.5
Number of days above NAAQS (>35 μg/m^3)	1	0	1
Lead (μg/m^3), 3-Month Average[1]	0.01	0.01	0.01
Number of days above NAAQS (>0.15 μg/m^3)	0	0	0

ppm = parts per million; μg/m^3 = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard

[1] Data obtained from the San Bernardino-4th Street Station.

[2] Data obtained from Fontana-Arrow Highway Station.

Source: CARB 2021b and U.S. EPA 2021

Air Quality Management Plan

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which its jurisdiction is in non-compliance. Each iteration of the SCAQMD's Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal eight-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Governments' (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2016 Regional Transportation Plan/Sustainable

Communities Strategy (2016 RTP/SCS) are integrated into the 2016 AQMP. The 2016 AQMP builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also demonstrates strategies for attainment of the new federal eight-hour ozone standard and vehicle miles travelled emissions offsets, pursuant to recent USEPA requirements (SCAQMD 2017).

2.1.5 Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; people engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. Sensitive receptors in the project vicinity include residences located north, east and west of the project site.

2.2 Impact Analysis

This air quality analysis conforms to the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook* (1993) and supplemental guidance provided by the SCAQMD, including recommended thresholds for emissions associated with both construction and operation of the project (SCAQMD 2019).

2.2.1 Methodology

The project's construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footage, and location, to estimate a project's construction and operational emissions.

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. Emissions were modeled assuming construction of a 204-unit apartment complex. The construction schedule, list of construction equipment, and soil import volume used in CalEEMod were based on information provided by Frontier Enterprises. In addition, it was assumed that project construction would comply with all applicable regulatory standards, including SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings).

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions consist of emissions generated by residents to and from the project site. Emissions attributed to energy use include emissions from natural gas consumption for space and water heating and cooking. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. It was assumed that project operation would comply with all applicable regulatory standards, including SCAQMD Rule 445 (Wood-Burning Devices) and Rule 1113 (Architectural Coatings).

2.2.2 Significance Thresholds

To determine whether a project would result in a significant impact to air quality, Appendix G of the CEQA Guidelines requires consideration of whether a project would:

1. Conflict with or obstruct implementation of the applicable air quality plan
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard
3. Expose sensitive receptors to substantial pollutant concentrations
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Regional Significance Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 4.

Table 4 SCAQMD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of VOC	55 pounds per day of VOC
100 pounds per day of NO_X	55 pounds per day of NO_X
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO_X	150 pounds per day of SO_X
150 pounds per day of PM_{10}	150 pounds per day of PM_{10}
55 pounds per day of $PM_{2.5}$	55 pounds per day of $PM_{2.5}$

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X =sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter

Source: SCAQMD 2019

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated at project sites up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008a). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips.

LSTs have been developed for emissions generated by construction sites up to five acres in size. The project site is located in SRA 34 (Central San Bernadino Valley) and is approximately 8.33 acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. Given realistic construction practices, the active area of ground disturbance and/or heavy equipment

usage during construction at any one site would not be expected to exceed five acres of the construction site at once. Therefore, it is appropriate to use the LSTs for construction sites up to five acres in size for this analysis (SCAQMD 2008a). This provides a conservative evaluation of project impacts because the LSTs for these sizes of construction sites provide more stringent thresholds for construction emissions as compared to the analysis of emissions over a larger area. LSTs are provided for receptors at a distance of 25 to 500 meters (82 to 1,640 feet) from the project site boundary. The closest sensitive receptors to the project site are residences located immediately north, east, and west of the project site; therefore, per SCAQMD guidance, LSTs for receptors at a distance of 82 feet were utilized (SCAQMD 2008a). LSTs for construction on a five-acre site in SRA 34 for a receptor at 82 feet are shown in Table 5.

Table 5 SCAQMD LSTs for Construction

Pollutant	Allowable Emissions from an Active Five-acre Construction Site in SRA 34 for a Receptor at 82 Feet (pounds/day)
Gradual conversion of NO_x to NO_2	207
CO	1,746
PM_{10}	14
$PM_{2.5}$	8

LST = Localized Significance Threshold; SRA = Source Receptor Area; NO_X = nitrogen oxides; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter measuring 10 microns in diameter or less; $PM_{2.5}$ = particulate matter measuring 2.5 microns in diameter or less
Source: SCAQMD 2009

2.2.3 Project Impacts

Threshold 1	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE 2016 AQMP. NO IMPACT WOULD OCCUR.

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2016 AQMP relies on local general plans and the demographic forecasts contained in the SCAG 2016 RTP/SCS in its own projections for managing air quality in the SCAB.[3] As such, projects that propose development that is consistent with the growth anticipated by SCAG's growth projections and/or the General Plan would not conflict with the SCAQMD AQMP. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the AQMP.

The proposed project involves the construction of 204 multi-family residential units. According to data from the California Department of Finance (DOF), the current population of Rialto is approximately 102,567 persons, and the average household size is 3.96 persons (DOF 2021).

[3] On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). However, the 2016 AQMP was adopted prior to this date and relies on the demographic and growth forecasts of the 2016-2040 RTP/SCS; therefore, these forecasts are utilized in the analysis of the project's consistency with the AQMP.

Therefore, the proposed project would result in a net increase of approximately 808 residents (204 units x 3.96 persons/unit). It is likely that not all net new residents would become new residents of Rialto (they may, for example, already live in the city). However, this analysis conservatively assumes that all project residents would become new residents of the city. SCAG estimates the population of Rialto will increase to approximately 112,000 persons by 2040, which is an increase of approximately 9.2 percent or 9,433 persons, as compared to existing conditions (SCAG 2016). The proposed project would directly increase the existing population by approximately 804 residents, which would be within SCAG's 2040 population forecast for the city.

Currently, there are 27,619 housing units in Rialto (DOF 2021). By 2040, the number of households in the city is expected to grow to 31,500 units, which would be an increase of approximately 4,981 housing units as compared to existing conditions. The addition of 204 new residential units in Rialto would comprise approximately four percent of this forecasted increase.

Given the above analysis, population and housing growth generated by the project would be within the respective SCAG growth forecasts upon which the AQMP relies. Thus, the project would not conflict with the AQMP. No impact would occur.

Threshold 2	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Impact AQ-2 **THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE IN OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

Construction Emissions

Table 6 summarizes the estimated maximum daily emissions of pollutants associated with construction of the proposed project. As shown below, VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD regional thresholds or LSTs. Because air pollutant emissions generated by project construction would not exceed SCAQMD's regional significance thresholds or LSTs, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 6 Project Construction Emissions

	Maximum Emissions (lbs/day)					
Year	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2022	8	86	68	<1	9	6
2023	69	21	25	<1	4	2
2024	69	19	25	<1	4	2
Maximum Daily Construction Emissions	**69**	**86**	**68**	**<1**	**9**	**6**
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum Daily On-site Emissions	**68**	**91**	**64**	**<1**	**8**	**6**
SCAQMD Localized Significance Thresholds (LSTs)	N/A	207	1,746	N/A	14	8
Threshold Exceeded?	N/A	No	No	N/A	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X =sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulatory standards, including SCAQMD Rule 403 (Fugitive Dust) and SCAQMD Rule 1113 (Architectural Coatings). Emissions presented are the highest of the winter and summer modeled emissions. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources such as heavy construction equipment and architectural coatings and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Operational Emissions

Table 7 summarizes the project's operational emissions by emission source. The majority of project-related operational emissions would result from vehicle trips to and from the site. As shown in Table 7, operational emissions would not exceed SCAQMD regional thresholds for criteria pollutants. Because project emissions would not exceed SCAMQD thresholds, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 7 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs./day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	5	3	18	<1	<1	<1
Energy	<1	1	<1	<1	<1	<1
Mobile	3	3	28	<1	7	2
Project Emissions	**8**	**7**	**47**	**<1**	**7**	**2**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X =sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results that include compliance with regulatory standards, including SCAQMD Rule 445 (Wood-Burning Devices) and Rule 1113 (Architectural Coatings). Emissions presented are the highest of the winter and summer modeled emissions.

Threshold 3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Localized Carbon Monoxide Hotspot Impact

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

The entire SCAB is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. In 2020, the maximum 8-hour average CO value at the San Bernardino 4th Street station was 1.1 ppm, which is below the state and federal 8-hour CO standard of 9.0 ppm (USEPA 2020a). As shown in Table 6, maximum daily CO emissions generated by project construction would be 69 pounds, and maximum on-site emissions would be 68 pounds, which would not exceed SCAQMD's regional threshold (550 pounds per day) or LST (1,768 pounds per day) for CO. Likewise, as shown in Table 7, operational emissions from area, energy, and mobile sources combined would generate maximum daily CO emissions of approximately 47 pounds, which is below the SCAQMD regional threshold of 550 pounds. Both the SCAQMD's regional thresholds and LSTs are designed to be protective of public health. Based on the low background level of CO in the project area, ever-improving vehicle emissions standards for new cars in accordance with state and federal regulations, and the project's low level of operational CO emissions, the project would not create new CO hotspots or contribute substantially to existing CO hotspots. Therefore, the

proposed project would not expose sensitive receptors to substantial CO concentrations, and localized air quality impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants (TACs)

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2021a) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 24 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 24 months) is approximately six percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District 2017).

The maximum PM_{10} and $PM_{2.5}$ emissions would occur during site preparation and grading activities. These activities would last for approximately five months. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent approximately one percent of the total 30-year exposure period for health risk calculation. Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (2005). Together, the CARB and SCAQMD guidelines recommend siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Residential land uses are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land uses would be below thresholds warranting further study under the California Accidental Release Program. Because the project would not include substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, it would not result in the exposure of off-site sensitive receptors to significant amounts of carcinogenic or toxic air contaminants. Impacts would be less than significant.

Threshold 4	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 THE PROJECT WOULD NOT GENERATE ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would generate oil or diesel fuel odors during construction from equipment operations. These odors would be limited to the temporary construction period and would dissipate rapidly with distance. With respect to odors generated by project operation, the SCAQMD's *CEQA Air Quality Handbook* (1993) identifies land uses associated with odor complaints to be agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. Residential uses are not identified on this list. Furthermore, no odor-producing uses are located in the project vicinity. In addition, the project would be required to comply with SCAQMD Rule 402 (Nuisance), which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. Impacts would be less than significant.

3 Greenhouse Gas Emissions

3.1 Background

This section analyzes GHG emissions associated with the project and potential impacts related to climate change.

3.1.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC 2014a).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane, nitrous oxide, fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (USEPA 2021b).

Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 25, meaning its global

warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2014b). [4]

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2021). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity (Forster et al. 2007). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

3.1.2 Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant, accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases accounted for 6 percent and 2 percent respectively (IPCC 2014).

Total United States (U.S.) GHG emissions were 6,558 MMT of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019; since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (U.S. EPA 2021)..

Based on the CARB's California Greenhouse Gas Inventory for 2000-2018, California produced 425.3 MMT of CO_2e in 2018. The major source of GHG emissions in California is transportation, contributing 41 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 24 percent of the state's GHG emissions, while electric power accounts for approximately 15 percent (CARB 2020). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction target as emissions fell below 431 MMT of CO_2e (CARB 2020). The annual 2030 statewide target emissions level is 260 MMT of CO_2e (CARB 2017).

3.1.3 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling

[4] The IPCC's (2014b) *Fifth Assessment Report* determined that methane has a GWP of 28. However, modeling of GHG emissions was completed using the California Emissions Estimator Model version 2016.3.2, which uses a GWP of 25 for methane, consistent with the IPCC's (2007) *Fourth Assessment Report*.

predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2011 to 2020 was approximately 0.82°C higher than the average GMST for the 20th century (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014a and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally-specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.5 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century. Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains. In southern California, the average size of summertime non-Santa Ana based fires has significantly increased from 1,129 hectares in the 1960s to 2,121 hectares in the 2000s (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring-based reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with

respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). The uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the proportion of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack. Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding. The number of atmospheric rivers (regions of high water vapor transport from the tropics to the Pacific Coast that produce intense topographic-induced precipitation along southern California mountain ranges) is expected to increase in the future, resulting in an extended flood hazard season (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from coastal flooding. The rate of increase of global mean sea levels between 1993 to 2020, observed by satellites, is approximately 3.6 millimeters per year, more than double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2021). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise of 0.25 to 0.94 meter by 2100 (IPCC 2018). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events (State of California 2018).

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2021). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resultant changes in weather patterns could have ecological effects on global and local scales. Soil moisture is likely to decline in many regions as a result of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

3.1.4 Regulatory Setting

The following regulations address both climate change and GHG emissions.

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al*. ([2007] 549 U.S. 497) held that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that establishes the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the U.S. E.PA and the National Highway Traffic Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the U.S. E.PA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO_2 emissions standards for passenger cars and trucks of model years 2021 to 2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020). To account for the effects of the SAFE Vehicles Rule, CARB released off-model adjustment factors on June 26, 2020 to adjust GHG emissions outputs from the EMFAC model.

California Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Global Warming Solutions Act of 2006 (Assembly Bill 32 and Senate Bill 32)

The "California Global Warming Solutions Act of 2006," Assembly Bill (AB) 32, outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 target. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO_2e. On December 11, 2008, CARB approved the Climate Change Scoping Plan, which included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other sectors (CARB 2008). Many of the GHG emission reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard and Cap-and-Trade) have been adopted since the plan's approval.

CARB approved the 2013 Scoping Plan Update in May 2014. The update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 (detailed below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan. Qualified projects consistent with an approved SCS or Alternative Planning

Strategy (categorized as "transit priority projects") would receive incentives to streamline CEQA processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. SCAG was assigned targets of an 8 percent reduction in per capita passenger vehicle GHG emissions by 2020 and a 19 percent reduction in per capita passenger vehicle GHG emissions by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of sub regional plans by the sub regional councils of governments and the county transportation commissions to meet SB 375 requirements. On September 3, 2020, the SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS entitled Connect SoCal, which meets the requirements of SB 375.

Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle) in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills. CalRecycle has initiated the rulemaking process for these regulations with the proposed regulation text submitted to the Office of Administrative Law in October 2020.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 44 percent by 2024, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Building Standards Code

Title 24 of the California Code of Regulations (CCR) is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards, which the City of Calabasas has adopted in Calabasas Municipal Code Chapter 15.04. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC).

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2019 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers (Tiers I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- 20 percent reduction in indoor water use relative to specified baseline levels;[5]
- 65 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards;
- Dedicated circuitry to facilitate installation of electric vehicle (EV) charging stations in newly constructed attached garages for single-family and duplex dwellings ("EV ready"); and
- Designation of at least ten percent of parking spaces for multi-family residential developments as electric vehicle charging spaces capable of supporting future electric vehicle supply equipment ("EV capable").

The voluntary standards require:

- **Tier I:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste with third-party verification, 10 percent recycled content for building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof; and
- **Tier II:** stricter energy efficiency requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste with third-party verification, 15 percent recycled content for building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar reflective roof.

[5] Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified by CALGreen or a reduced per-plumbing-fixture water use rate.

California Integrated Waste Management Act (Assembly Bill 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341 in 2011, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995 through source reduction, recycling, and composting activities and (2) diversion of 50 percent of all solid waste on and after January 1, 2000.

Regional and Local Regulations

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

Rialto General Plan

The Rialto General Plan does not have a specific element aimed at reducing GHG emissions, but does includes goals, objectives, or policies specific to reducing GHG emissions throughout the plan. The relevant goals and their respective objectives from the Land Use Element and the Circulation Chapter of the Rialto General Plan would also serve to reduce GHG emissions (City of Rialto 2010):

Goal 2-1: Revitalize and enhance the Foothill Boulevard Corridor into a place that supports economic development and creates a sense of place and identity through the use of appropriate streetscape design inspired by the Rialto Bridge.

> **Policy 2-1.1**: Provide new opportunities along the Foothill Boulevard Corridor for mixed-use residential, retail, and commercial uses.
>
> **Policy 2-1.3:** Require that properties fronting Foothill Boulevard physically connect to each other to create continual pedestrian connectivity along the corridor. Provide pedestrian-friendly amenities such as shaded walking areas, pedestrian-scale architecture, and commercial buildings with pedestrian street entries.

Goal 2-17: Provide high-quality and environmentally sustainable landscaping.

> **Policy 2-17.3:** Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.

Goal 2-29: Conserve water resources.

> **Policy 2-29.1**: Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.

Goal 2-30: Incorporate green building and other sustainable building practices into development projects.

Policy 2-30.2: Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.

Goal 2-31: Conserve energy resources.

Policy 2-31.1: Require the incorporation of energy conservation features into the design of all new construction and site development activities.

Goal 2-34: Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction.

Policy 2-34.2: Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills.

Policy 2-34.3: Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.

Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City.

Policy 2-35.2: Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.

Goal 2-38: Mitigate against climate change.

Policy 2-38.1: Consult with State agencies, SCAG, and the San Bernardino Associated Governments (SANBAG) to implement AB32 and SB375 by utilizing incentives to facilitate infill and transit-oriented development.

Policy 2-38.2: Encourage development of transit-oriented and infill development, and encourage a mix of uses that foster walking and alternative transportation in Downtown and along Foothill Boulevard.

Policy 2-38.3: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).

Goal 4-8: Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City.

Policy 4-8.5: Require major developments to include bicycle storage facilities, including bicycle racks and lockers.

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.

Policy 4-9.2: Require sidewalks and parkways on all streets in new development.

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.

3.2 Impact Analysis

3.2.1 Methodology

Construction and operational GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., mid-rise apartments, unenclosed parking structure, parking lot), and location, to estimate a project's construction and operational emissions. See Appendix B for CalEEMod results.

Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and in on-road construction vehicles and in the commute vehicles of the construction workers. Smaller amounts of GHGs are emitted indirectly through the energy required for water used for fugitive dust control and lighting for the construction activity. Every phase of the construction process, including demolition, grading, paving, building, and architectural coating, emits GHG emissions in volumes proportional to the quantity and type of construction equipment used. Heavier equipment typically emits more GHGs per hour than does lighter equipment because of its engine design and greater fuel consumption. CalEEMod estimates construction emissions by multiplying the time equipment is in operation by emission factors.

Construction would generally consist of site preparation, grading, erection of the proposed buildings, paving, and architectural coating. Construction emissions were modeled in accordance with the methodology outlined in Section 2.2.1, *Methodology*, in Section 2, *Air Quality*. In accordance with SCAQMD's recommendation, GHG emissions from construction of the proposed project were amortized over a 30-year period and added to annual operational emissions to determine the project's total annual GHG emissions (SCAQMD 2008b).

Energy Emissions

GHGs are emitted on-site during the combustion of natural gas for space and water heating and off-site during the generation of electricity from fossil fuels in power plants. CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider. Building energy use is typically divided into energy consumed by the built environment and energy consumed by uses that are independent of the building, such as plug-in appliances. Non-building energy use, or "plug-in energy use," can be further subdivided by specific end-use (refrigeration, cooking, office equipment, etc.). In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards in Title 24, all new residential uses

under three stories must install photovoltaic (PV) solar panels that generate an amount of electricity equal to expected electricity usage. The proposed project would consist of six three-story buildings. Therefore, it was assumed that the project's electricity usage would be supplied by on-site PV solar panels and would not generate GHG emissions.

Area Source Emissions

Area sources include GHG emissions that would occur from the use of landscaping equipment and fireplaces, which emit GHGs associated with fuel combustion. The landscaping equipment emission values were derived from the 2011 Off-Road Equipment Inventory Model (California Air Pollution Control Officers Association 2017). In accordance with SCAQMD Rule 445, no wood-burning devices would be installed.

Solid Waste Emissions

The disposal of solid waste produces GHG emissions from the transportation of waste, anaerobic decomposition in landfills, and incineration. To calculate the GHG emissions generated by solid waste disposal, the total volume of solid waste was calculated using waste disposal rates identified by the California Department of Resources Recycling and Recovery (CalRecycle). The methods for quantifying GHG emissions from solid waste are based on the IPCC method, using the degradable organic content of waste.

Water and Wastewater Emissions

The amount of water used and the amount of wastewater generated by a project generate indirect GHG emissions. These emissions are a result of the energy used to supply, convey, and treat water and wastewater. In addition to the indirect GHG emissions associated with energy use, the wastewater treatment process itself can directly emit both methane and nitrous oxide.

The indoor and outdoor water use consumption data for each land use subtype comes from the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* (2003).[6] Based on that report, a percentage of total water consumption was dedicated to landscape irrigation, which is used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use. New development would be subject to CALGreen, which requires a 20 percent increase in indoor water use efficiency and installation of water-efficient irrigation systems. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use and use of water-efficient irrigation systems was included in the water consumption calculations.

Mobile Source Emissions

Mobile source emissions consist of emissions generated by residents to and from the project site. The trip generation rate was based on the Institute of Transportation Engineers Trip Generation Manual, 10th Edition, which is included in CalEEMod by default. The "Increase Density" "option in CalEEMod was used to account for the project's density of 24.6 dwelling units per acre.

[6] California Emissions Estimator Model, User Guide, Appendix D. Available at: http://www.caleemod.com/

Service Population

The service population of a project is the number of estimated residents and employees accommodated by the project. As discussed under Impact AQ-1, the project would accommodate approximately 808 residents. To compare the estimated emissions to the locally-applicable, project-specific efficiency threshold (see Section 3.2.2, *Significance Thresholds*, below), the per person GHG emissions for the proposed project were calculated by dividing total GHG emissions by the service population.

3.2.2 Significance Thresholds

The majority of individual projects do not generate sufficient GHG emissions to create significant project-specific environment effects. However, the environmental effects of a project's GHG emissions can contribute incrementally to cumulative environmental effects that are significant, contributing to climate change, even if an individual project's environmental effects are limited (CEQA Guidelines Section 15064[h][1]). The issue of a project's environmental effects and contribution towards climate change typically involves an analysis of whether or not a project's contribution towards climate change is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7[c]).

According to the CEQA Guidelines Section 15183.5, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP) in their white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions (AEP 2016). However, although the San Bernardino Council of Governments has completed its Regional Greenhouse Gas Reduction Plan (2021), it is not a qualified GHG reduction plan because the City of Rialto has not adopted a local climate action plan consistent with the Regional Greenhouse Gas Reduction Plan; thus, this approach is not currently feasible.

Project-Specific Efficiency Threshold

For the proposed project, a 2030 efficiency threshold was calculated based on the year 2030 GHG emission levels for Rialto that would be consistent with the State's 2030 target. This locally appropriate, project-specific quantitative threshold is derived, in part, from the City's baseline 2008 GHG emissions inventory in line with the California Air Resources Board's recommendations in the 2008 Climate Change Scoping Plan and the 2017 Scoping Plan (California Air Resources Board 2008 and 2017). Consistent with the legal guidance provided in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the City's 2008 baseline GHG emissions inventory was used to calculate a locally-appropriate, evidence-based, project-specific threshold consistent with the State's 2030 target. Accordingly, the threshold established to analyzed the proposed project is a locally-applicable, project-specific threshold, as opposed to a threshold for general use.

The San Bernardino Council of Governments (formerly known as the San Bernardino Associated Governments) completed a 2008 baseline GHG emissions inventory for Rialto that calculated communitywide emissions of 676,731 MT of CO_2e per year. However, because the proposed project consists solely of residential land uses, only those portions of the 2008 baseline inventory associated with residential land uses are appropriate to use in developing a project-specific threshold. Therefore, the 2008 baseline inventory was adjusted to remove emissions associated with nonresidential energy usage, stationary sources, and agriculture and to proportionally allocate a share of the emissions associated with transportation, off-road equipment, solid waste, wastewater treatment, water transport/distribution/treatment, and sulfur hexafluoride from electricity combustion to residential land uses based on the 2008 service population (residents + employees) of Rialto. Table 8 summarizes the 2008 baseline GHG emissions inventory and details how the inventory was adjusted to calculate the proportion of communitywide GHG emissions attributed to residential land uses. As shown therein, approximately 419,763 MT of CO_2e per year of the 2008 baseline inventory is attributed to residential land uses.

The total 2008 baseline GHG emissions attributed to residential land uses were then used to calculate a project-specific GHG emissions threshold for year 2030 based on the State's GHG emission reduction targets under Assembly Bill 32 and Senate Bill 32. Assembly Bill 32 set a statewide target of reducing GHG emissions to 1990 levels by 2020. Therefore, for the City of Rialto to be consistent with Assembly Bill 32, annual GHG emissions levels from residential land uses would need to have been reduced by 15 percent below 2005 levels by 2020 to approximately 356,799 MT of CO_2e per year.[7] In addition, the State set a statewide GHG emission reduction target of 40 percent below 1990 levels in Senate Bill 32. Therefore, annual GHG emissions levels from residential land uses would need to be reduced by 40 percent below 1990 levels to approximately 214,079 MT of CO_2e per year to be consistent with the State's 2030 target. The 2030 project-specific residential efficiency threshold can thus be calculated by dividing the total communitywide GHG emissions target for residential land uses by the communitywide residential population for year 2030. The City's 2030 residential population is forecast to be approximately 119,193 persons (San Bernardino Council of Governments 2021). Therefore, the 2030 locally-appropriate, project-specific threshold would be approximately 1.8 MT of CO_2e per resident per year (see Table 9).

[7] A 2020 GHG emissions inventory has not been completed for Rialto; therefore, it is not known if existing communitywide GHG emissions have sufficiently declined to achieve this level. However, whether existing communitywide GHG emissions have been reduced by 15 percent below baseline 2010 levels does not affect the calculation of the threshold of significance because the threshold is calculated using the baseline 2010 GHG emissions inventory and the State's targets, which remain the same regardless of the current state of communitywide GHG emissions.

Table 8 City of Rialto Baseline Inventory – 2008 (Adjusted for Residential Land Uses)

Source	2008 Total (MT of CO_2e)[1]	Per Service Person (MT of CO_2e)[2, 3]	Total Attributed to Residential Land Uses (MT of CO_2e)[4]
Residential Natural Gas	58,722	No Adjustment Needed – Residential Only	58,722
Commercial/ Industrial Natural Gas	31,838	N/A	N/A
Residential Electricity	55,411	No Adjustment Needed – Residential Only	55,411
Commercial/Industrial Electricity	86,255	N/A	N/A
Stationary Sources	67,952	N/A	N/A
Light/Medium-Duty Vehicles	260,057	2.14	211,212
Heavy-Duty Vehicles	41,945	0.34	34,067
Off-Road Equipment	40,061	0.33	32,537
Agriculture	245	N/A	N/A
Solid Waste Management	14,269	0.12	11,589
Wastewater Treatment	4,001	0.03	3,250
Water Transport, Distribution, and Treatment	14,297	0.12	11,612
Sulfur Hexafluoride from Electricity	1,678	0.01	1,363
Total Emissions	**676,731**	**--**	**419,763**

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] Source: San Bernardino Council of Governments 2014

[2] Based on a citywide 2008 service population for Rialto of 121,800 service persons (98,923 residents and 22,877 jobs) (San Bernadino Council of Governments 2014).

[3] Calculations assume emissions from each sector are distributed equally among each resident and employee in the city.

[4] Based on a citywide 2008 population of 98,923 residents for Rialto (San Bernardino Council of Governments 2014).

Table 9 Locally Applicable Project-Specific 2030 Efficiency Threshold

Target Year	Value
2008 Baseline Levels[1]	419,763 MT of CO_2e/year
2020 Target (AB 32)[2]	356,799 MT of CO_2e/year
2030 Target (SB 32)[3]	214,079 MT of CO_2e/year
2030 Residential Population[4]	119,193 persons
2030 Project-Specific Efficiency Threshold	**1.80 MT of CO_2e per resident per year**

MT = metric tons; CO_2e = carbon dioxide equivalents

[1] 2008 emission levels from project-applicable sectors (see Table 8)

[2] AB 32 sets a target of reducing GHG emissions to 1990 levels (i.e., 15 percent below 2008 levels) by 2020.

[3] SB 32 sets a target of reducing GHG emissions 40 percent below 1990 levels by 2030.

[4] Source: San Bernardino Council of Governments 2021

3.2.3 Impact Analysis

Threshold 1	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1 THE PROPOSED PROJECT WOULD NOT GENERATE GHG EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction and operation of the proposed project would generate GHG emissions. This analysis considers the combined impact of GHG emissions from both construction and operation. Calculations of CO_2, methane, and nitrous oxide emissions are provided to identify the magnitude of potential project effects.

Project construction activities would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project sites and heavy trucks to transport building materials and soil export. As shown in Table 10, construction activity associated with the project would generate an estimated 1,865 MT of CO_2e. When amortized over a 30-year period, construction of the project would generate about 62 MT of CO_2e per year.

Table 10 Estimated Construction GHG Emissions

Year	Emissions (MT of CO_2e)
2022	536
2023	754
2024	575
Total	**1,865**
Amortized over 30 years	**62 MT per year**

MT = metric tons; CO_2e = carbon dioxide equivalents
See Appendix B for CalEEMod results.

Operation of the proposed project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Table 11 summarizes annual operational emissions and combines the construction and operational GHG emissions associated with the proposed project to calculate total annual emissions. As shown therein, the project would generate approximately 1,426 MT of CO_2e per year, or 1.76 MT of CO_2e per resident, which would not exceed the threshold of 1.80 MT of CO_2e per resident. Therefore, impacts would be less than significant.

Table 11 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e)
Construction[1]	62
Area	48
Energy	187
Mobile	1,026
Solid Waste	47
Water	56
Total Emissions	**1,426**
Service Population (Residents)	808
Emissions Per Service Person	**1.76**
Locally-Applicable, Project-Specific Efficiency Threshold (per Service Person)	1.80
Threshold Exceeded?	No

MT = metric tons; CO_2e = carbon dioxide equivalents
[1] Construction emissions were amortized over a 30-year period in accordance with SCAQMD recommendations (SCAQMD 2008b). See Appendix B for CalEEMod results.

Threshold 2	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

Impact GHG-2 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE CITY OF RIALTO GENERAL PLAN, THE SCAG 2020-2045 RTP/SCS, AND THE 2017 SCOPING PLAN. NO IMPACT WOULD OCCUR.

Several plans and policies have been adopted to reduce GHG emissions in the southern California region, including the State's 2017 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and local policies contained in the City's General Plan. The proposed project's consistency with these plans is discussed in the following subsections. As discussed therein, the proposed project would not conflict with plans and policies aimed at reducing GHG emissions. No impact would occur.

2017 Scoping Plan

The principal state plans and policies are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use, energy demand, and vehicle miles traveled (VMT); maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. The project would be served by Southern California Edison, which is required to increase its renewable energy procurement in accordance with SB 100 targets. The project would be located in an area well-served by transit and

within walking and biking distance of several commercial, institutional, and recreational destinations, which would reduce future residents' VMT and associated fossil fuel usage. Furthermore, the project would be required to comply with State recycling requirements for multi-family residential land uses set forth in AB 341, which would maximize the project's recycling and solid waste diversion. Therefore, the project would be consistent with the 2017 Scoping Plan.

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The SCAG 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars in the SCAG region by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2040 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The project's consistency with the 2020-2045 RTP/SCS is discussed in Table 12. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 12 Project Consistency with Applicable SCAG RTP/SCS Strategies

Reduction Strategy	Project Consistency
Focus Growth Near Destinations & Mobility Options ▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies to promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Consistent.** The proposed project is an infill development that would increase residential density within a High Quality Transit Area (HQTA). The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Therefore, the project focuses growth near destinations and mobility options.
Promote Diverse Housing Choices ▪ Preserve and rehabilitate affordable housing and prevent displacement ▪ Identify funding opportunities for new workforce and affordable housing development ▪ Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply ▪ Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of GHGs	**Consistent.** The project site is currently undeveloped; therefore, the project would not result in the displacement of existing affordable housing.

Reduction Strategy	Project Consistency
Leverage Technology Innovations ▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space ▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments ▪ Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Consistent.** The proposed project would be required to comply with State and local regulations, including the California Building Energy Efficiency Standards and CALGreen, related to the provision of electric vehicle supply equipment for parking spaces and the installation of photovoltaic solar panels on all project buildings that generate an amount of electricity equal to expected electricity usage. Therefore, the project would leverage technology innovations.
Support Implementation of Sustainability Policies ▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions ▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations ▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space ▪ Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies ▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region ▪ Continue to support long range planning efforts by local jurisdictions ▪ Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Consistent.** The project would be consistent with the Rialto General Plan (see Table 13) and would be constructed in accordance with the California Building Energy Efficiency Standards and CALGreen. Therefore, the project would support implementation of sustainable policies.
Promote a Green Region ▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards ▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration ▪ Integrate local food production into the regional landscape ▪ Promote more resource efficient development focused on conservation, recycling and reclamation ▪ Preserve, enhance and restore regional wildlife connectivity ▪ Reduce consumption of resource areas, including agricultural land ▪ Identify ways to improve access to public park space	**Consistent.** The project is an infill development project that would involve construction of residential uses in an urbanized area and would therefore not interfere with regional wildlife connectivity or convert agricultural land. The project would be required to install photovoltaic solar panels on all buildings that generate an amount of electricity equal to expected electricity usage in accordance with the California Building Energy Efficiency Standards. Therefore, the project would support development of a green region.

Source: SCAG 2020

Rialto General Plan

Table 13 summarizes the project's consistency with the Rialto General Plan (2010). As discussed therein, the project would be consistent with the actions and measures contained in these policies.

Table 13 Project Consistency with Applicable Rialto General Plan Policies

Goal	Project Consistency
Land Use Element	
Goal 2-1: Revitalize and enhance the Foothill Boulevard Corridor into a place that supports economic development and creates a sense of place and identity through the use of appropriate streetscape design inspired by the Rialto Bridge. ▪ **Policy 2-1.1**: Provide new opportunities along the Foothill Boulevard Corridor for mixed-use residential, retail, and commercial uses. ▪ **Policy 2-1.3**: Require that properties fronting Foothill Boulevard physically connect to each other to create continual pedestrian connectivity along the corridor. Provide pedestrian-friendly amenities such as shaded walking areas, pedestrian-scale architecture, and commercial buildings with pedestrian street entries.	**Consistent.** The project would introduce new residential land uses along Foothill Boulevard in an area primarily developed with commercial uses, which would contribute to development of a mixed-use corridor. In addition, the project would include a sidewalk along the Foothill Boulevard frontage to connect to create pedestrian connectivity with adjacent properties and would include landscaping along the Foothill Boulevard frontage that would provide shade to pedestrians.
Goal 2-17: Provide high-quality and environmentally sustainable landscaping. ▪ **Policy 2-17.3:** Require the use of drought-tolerant, native landscaping and smart irrigation systems for new development to lower overall water usage.	**Consistent.** Pursuant to CALGreen, the project would be required to install water-efficient irrigation systems that are compliant with the State's Model Water Efficient Landscape Ordinance.
Goal 2-29: Conserve water resources. ▪ **Policy 2-29.1**: Require new development to use features, equipment, technology, landscaping, and other methods to reduce water consumption.	**Consistent.** Pursuant to CALGreen, the project would be required to install water-efficient irrigation systems that are compliant with the State's Model Water Efficient Landscape Ordinance.
Goal 2-30: Incorporate green building and other sustainable building practices into development projects. ▪ **Policy 2-30.2**: Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.	**Consistent.** The project would be required to be constructed in accordance with the latest iteration of the California Building Energy Efficiency Standards and CALGreen.
Goal 2-31: Conserve energy resources. ▪ **Policy 2-31.1**: Require the incorporation of energy conservation features into the design of all new construction and site development activities.	**Consistent.** The project would be required to be constructed in accordance with the latest iteration of the California Building Energy Efficiency Standards and would include features such as energy-efficient appliances and rooftop solar PV panels.

Goal	Project Consistency
Goal 2-34: Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional, and construction. ▪ **Policy 2-34.2:** Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste generated in Rialto that is disposed of in landfills. ▪ **Policy 2-34.3:** Encourage the maximum diversion from landfills of construction and demolition materials through recycling and reuse programs.	**Consistent.** The project would be required to provide recycling services to future residents in accordance with the requirements of AB 341. In addition, the project would be required to comply with the minimum 65-percent diversion rate for construction and demolition waste specified in CALGreen during construction activities.
Goal 2-35: Reduce air pollution emissions from both mobile and stationary sources in the City. ▪ **Policy 2-35.2:** Require that new development projects incorporate design features that encourage ridesharing, transit use, park and ride facilities, and bicycle and pedestrian circulation.	**Consistent.** The proposed project is an infill development that would increase residential density within a High Quality Transit Area (HQTA). The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Furthermore, the project would be required to comply with the bicycle parking standards contained in Rialto Municipal Code Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.
Goal 2-38: Mitigate against climate change. ▪ **Policy 2-38.1:** Consult with State agencies, SCAG, and the San Bernardino Associated Governments (SANBAG) to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development. ▪ **Policy 2-38.2:** Encourage development of transit-oriented and infill development, and encourage a mix of uses that foster walking and alternative transportation in Downtown and along Foothill Boulevard. ▪ **Policy 2-38.3**: Provide enhanced bicycling and walking infrastructure, and support public transit, including public bus service, the Metrolink, and the potential for Bus Rapid Transit (BRT).	**Consistent.** The proposed project is an infill development that would increase residential density within a High Quality Transit Area (HQTA). The project site is approximately 250 feet east of the Foothill/Acacia stop for OmniTrans bus route 14 and approximately one mile away from the Rialto stop for the Los Angeles Metro San Bernardino rail line Additionally, the project site is within 0.5 mile of Casey Elementary. The project site is also located in an area with mixed uses where residents could walk to many commercial destinations. Furthermore, the project would be required to comply with the bicycle parking standards contained in Rialto Municipal Code Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.

Goal	Project Consistency
Circulation Chapter	
Goal 4-8: Establish and maintain a comprehensive system of pedestrian trails and bicycle routes that provide viable connections throughout the City. ▪ **Policy 4-8.5:** Require major developments to include bicycle storage facilities, including bicycle racks and lockers.	**Consistent.** The project would be required to comply with the bicycle parking standards contained in Rialto Municipal Code Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.
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. ▪ **Policy 4-9.2**: Require sidewalks and parkways on all streets in new development. ▪ **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.** The project would include pedestrian paths throughout the project site and a sidewalk along the Foothill Boulevard frontage. In addition, the project would be required to comply with the bicycle parking standards contained in Rialto Municipal Code Section 18.59.030(A), which requires the provision of one bicycle space per 30 parking spaces with a minimum requirement of three bicycle parking spaces.

Source: City of Rialto 2010

4 Conclusions and Recommendations

All air quality impacts related to project construction and operation would be less than significant. Population and housing growth associated with the proposed project would be within SCAG regional growth projections; therefore, the project would be consistent with the AQMP. Project construction and operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Project construction and operation would not expose sensitive receptors to substantial pollutant concentrations from CO hotspots or TAC emissions. The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The project would not conflict with the City of Rialto General Plan, the SCAG 2020-2045 RTP/SCS, or the 2017 Scoping Plan; therefore, impacts related to GHG emissions would be less than significant.

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Appendix A

Project Site Plans

Site Summary:

Total Homes : 204

Gross Site Area : ± 8.02 Acres
Gross Density : ± 25.4 Homes per Acre

Net Site Area : ± 7.66 Acres
Net Density : ± 26.6 Homes per Acre

Unit Mix:

1BR	:	93 (45.6%)
2BR	:	90 (44.1%)
3BR	:	21 (10.3%)
Total	:	204

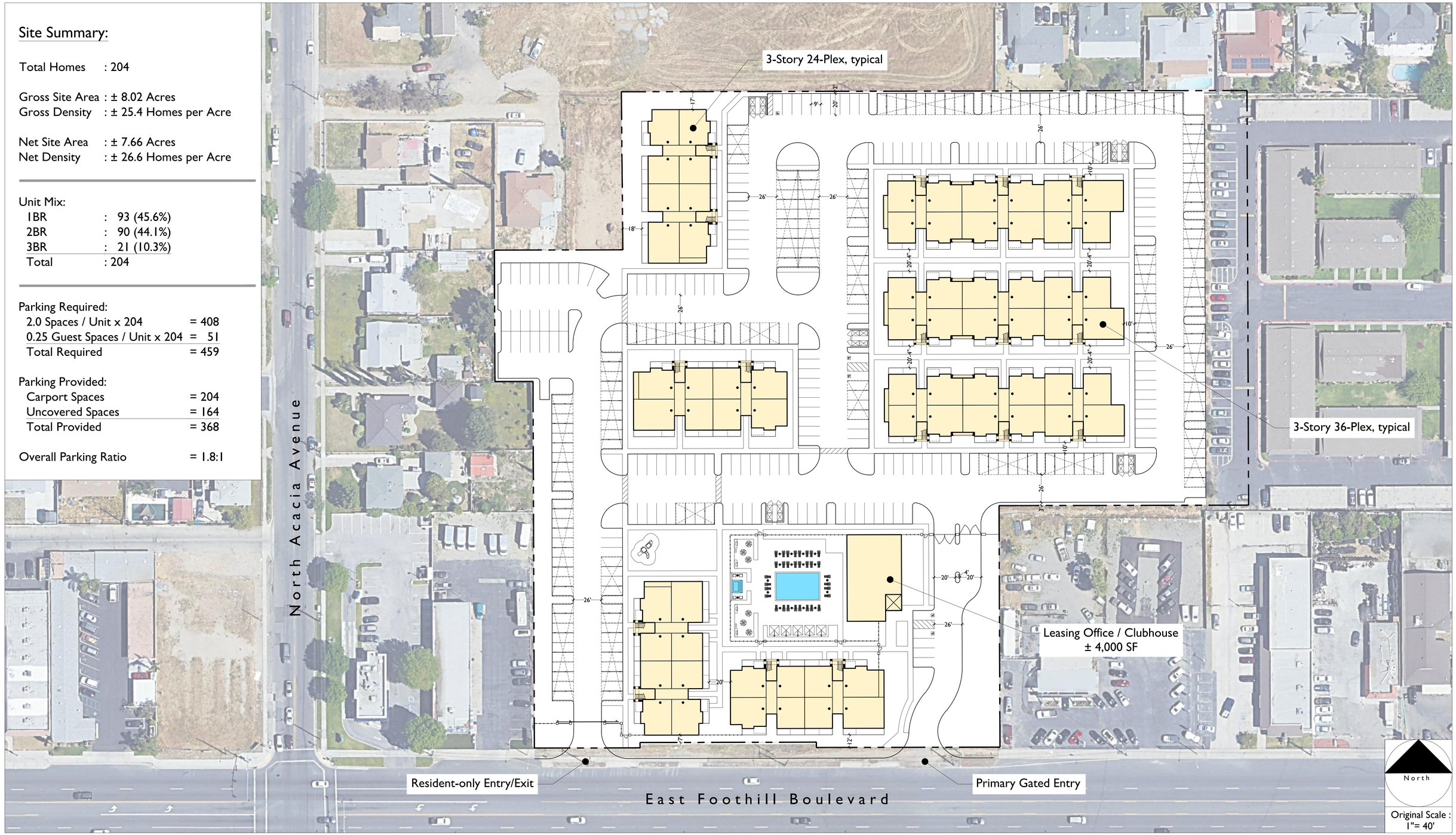
Parking Required:

2.0 Spaces / Unit x 204	= 408
0.25 Guest Spaces / Unit x 204	= 51
Total Required	= 459

Parking Provided:

Carport Spaces	= 204
Uncovered Spaces	= 164
Total Provided	= 368

Overall Parking Ratio = 1.8:1



INFORMATIONAL SITE PLAN : B

534 FOOTHILL BOULEVARD

Rialto, California

0 20 40 80
SCALE: 1" = 40'-0"

881.21121

06.15.21

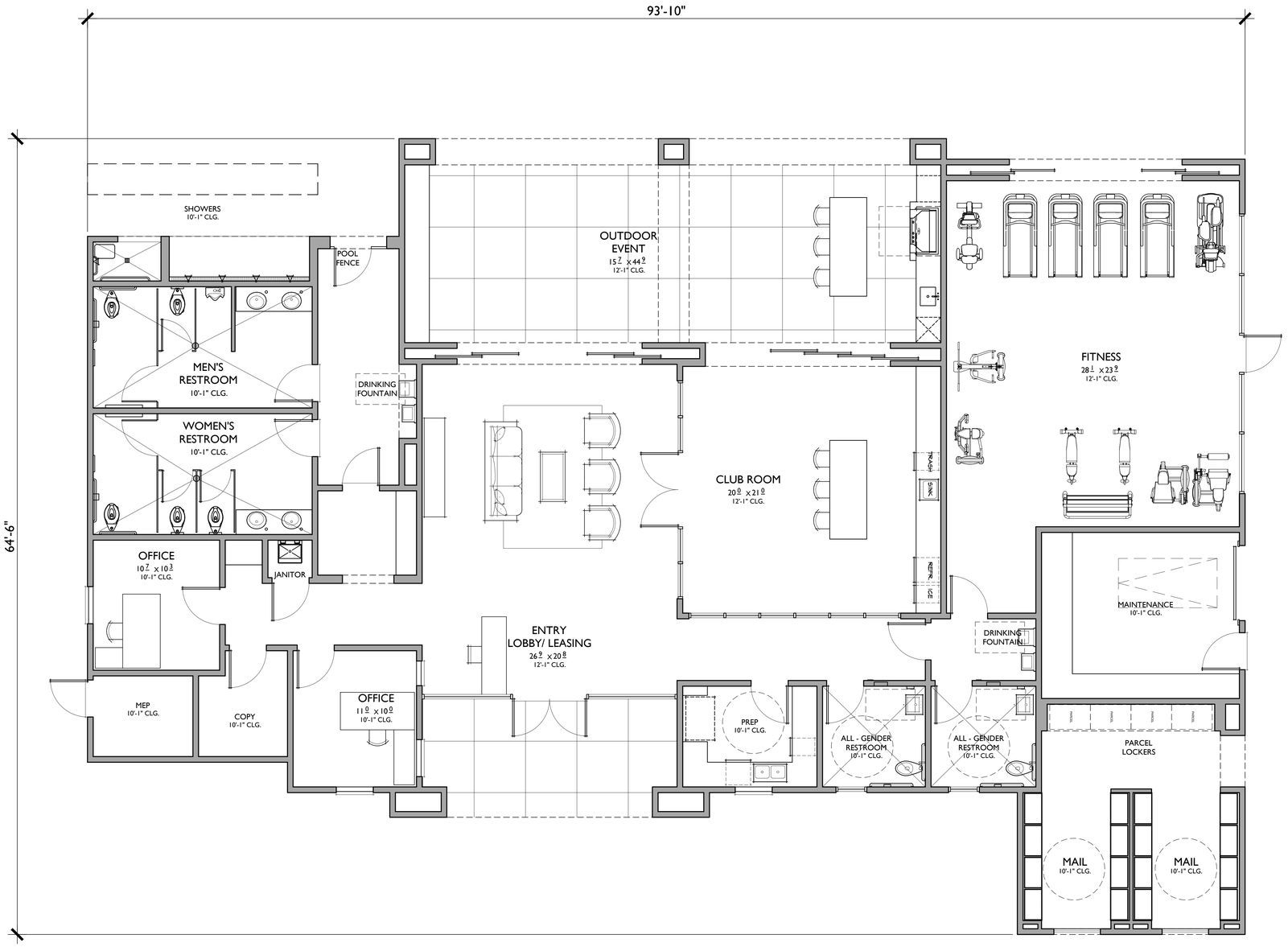
Note:
This yield study is for the purpose of estimating the maximum density of a residential product type on a site of a given configuration. If specific entitlement requirements differ from the criteria shown on the plan (such as setbacks, minimum lot sizes, street standards, retention requirements, etc.) then the actual possible density may vary substantially.

Bassenian | Lagoni
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fax +1 949 553 0548

FRONTIER COMMUNITIES



FLOOR AREA TABLE

CONDITIONED SPACE	3236 SQ. FT.
COVERED OUTDOOR	0 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

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RECREATION CENTER
Floor Plan

RIALTO FOOTHILL APARTMENTS
Rialto , California

0 2 4 8

881.21241

A5.1
09.02.21

FRONTIER COMMUNITIES

LEGEND

1. Foothill Blvd Parkway Treatment Per "Foothill Blvd Specific Plan"
   - Landscape mesh screen
   - Paver form tree wells @ 40' o.c.
   - Colored concrete parkway throughout
2. Main Entry
   - Decorative unit pavers
   - Center directory
   - Spanish themed vehicular gates
   - Dry fountain in entry plaza
3. Pool Area
   - Large central lap pool
   - Decorative concrete sun deck
   - Colorful cantilevered umbrellas over synthetic turf
   - Spa with tile mural backdrop wall
   - Separate yoga lawn outside fitness room
4. Outdoor Kitchen
   - (2) grills w/ concrete countertop
   - Table seating
   - Wood trellis above
5. Tot Lot Area
   - Rubble surface w/ play equipment for 5–12-year-olds
   - Framed by hedges
   - Shaded by 4 large canopy trees
6. Enclosed Dog Park
   - Double trap entry gate
   - Synthetic turf
7. Entry / BBQ Nodes (2 locations)
   - Enhanced terra cotta tile paving
   - Spanish themed pilaster & seat wall
   - Pedestal BBQ
   - Table seating for 2



TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
TREES			
	Aloe 'Hercules'	Hercules Aloe	15 Gal
	Citrus sinensis	Orange Tree	15 Gal
	Strelitzia nicholai	Giant Bird-of-Paradise	15 Gal
	Acacia smallii	Sweet Acacia	24" Box
	Geijera parviflora	Australian Willow	24" Box
	Magnolia grandiflora 'Little Gem'	Southern Magnolia	24" Box
	Tristania conferta	Brisbane Box	24" Box
	Cercidium hybrid 'Desert Museum'	Hybrid Palo Verde	36" Box
	Chitalpa tashkentensis 'Pink Dawn'	Chitalpa	24" Box
	Cupaniopsis anacardioides	Carrotwood	24" Box
	Cupressus sempervirens	Italian Cypress	24" Box
	Magnolia grandiflora 'D.D. Blanchard'	Southern Magnolia	24" Box
	Olea europaea	Olive	Field Grown 14' x 14'
	Tipuana tipu	Tipu Tree	24" Box
	Designated Street Tree for Foothill		24" Box
PALMS			
	Chamaerops humilis	Mediteranean Fan Palm	24"B
	Phoenix dactylifera	Date Palm	15' - 20' HT.
	Washington robusta	Mexican Fan Palm	15' - 20' HT.

SHRUB LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME
	SHRUBS	
	Agave 'Blue Flame'	**Blue Flame Agave**
	Agave desmettiana	**Dwarf Century Plant**
	Agave weberi	**Weber's Century Plant**
	Aloe arborescens	**Tree Aloe**
	Bougainvillea 'La Jolla'	**Bougainvillea**
	Buxus microphylla japonica	**Japanese Boxwood**
	Carex divulsa	**Berkeley Sedge**
	Carissa grandiflora 'Green Carpet'	**Natal Plum**
	Chondropetalum tectorum	**Cape Rush**
	Citrus Kumquat Hybrid 'Tavares'	**Kumquat**
	Dianella revoluta 'DR5000'	**Little Rev Flax Lily**
	Dianella tasmanica 'Silver Streak'	**Silver Streak Flax Lily**
	Ilex crenata 'Sky Pencil'	**Sky Pencil Ilex**
	Lantana hybrids 'New Gold'	**New Gold Lantana**
	Ligustrum japonicum 'Texanum'	**Wax Leaf Privet**
	Lomandra longifolia 'LM300'	**Breeze Dwarf Mat Rush**
	Moraea bicolor	**Fortnight Lily**
	Muhlenbergia rigens	**Deer Grass**
	Olea europaea 'Montra' P.P.#6266	**Little Ollie Dwarf Olive**
	Pennisetum 'Fairy Tails'	**Fairy Tails Fountain Grass**
	Pittosporum tobira 'Wheeleri'	**Wheeler's Dwarf Tobira**
	Podocarpus elongatus 'Monmal'	**Icee Blue Yellow-Wood**
	Portulacaria afra	**Elephant's Food**
	Rhaphiolepis indica 'Spring Time'	**Indian Hawthorne**
	Rosa f. 'Trumpeter'	**Trumpeter Rose**
	Senecio mandraliscae	**Blue Chalk Sticks**
	Stipa tenuissima	**Mexican Feather Grass**
	Strelizia reginae	**Bird-of-Paradise**
	Yucca recurvifolia	**Pendulous Yucca**

L1

PRELIMINARY LANDSCAPE PLAN

RIALTO FOOTHILL APARTMENTS

RIALTO, CALIFORNIA

FRONTIER COMMUNITIES
2151 E. Convention Center Way, Suite 114
Ontario, CA 91764

SCALE 1"=30'

SITESCAPES
Landscape Architecture & Planning
3190-B2 Airport Loop Drive
Costa Mesa, CA 92626
Richard Pehlcke, License # 2782
(949) 644-9370

JOB# 21-038
DATE: 08-31-2021

Appendix B

Air Quality and Greenhouse Gas Modeling Results

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Rialto Apartments AQ Analysis

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	164.00	Space	0.00	65,600.00	0
Unenclosed Parking Structure	204.00	Space	0.00	81,600.00	0
Apartments Mid Rise	204.00	Dwelling Unit	8.30	204,000.00	808

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	391	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated for CalEEmod 2020.4.0

Land Use - 8.3 acres according to site plan, lot acreage allocated to apartment land use

Construction Phase - As listed in Construction Schedule

Off-road Equipment - Air Compressor use assumed given nature of project

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment -

Trips and VMT -

Demolition - No demolition phase

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading -

Architectural Coating - SCAQMD rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - SCAQMD Rule 445

Land Use Change -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - project design features

Energy Mitigation - Compliance with 2019 energy code

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	533.00
tblConstructionPhase	NumDays	20.00	32.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	173.40	183.60
tblFireplaces	NumberWood	10.20	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LotAcreage	1.48	0.00
tblLandUse	LotAcreage	1.84	0.00
tblLandUse	LotAcreage	5.37	8.30
tblLandUse	Population	583.00	808.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	391
tblWoodstoves	NumberCatalytic	10.20	0.00
tblWoodstoves	NumberNoncatalytic	10.20	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	8.2488	85.9730	68.1951	0.1491	9.4042	3.8570	13.2612	4.1244	3.5507	7.6751	0.0000	14,563.2586	14,563.2586	3.9229	0.2022	14,707.1247
2023	68.6886	20.6026	25.1249	0.0651	3.1001	0.8517	3.9518	0.8289	0.8125	1.6414	0.0000	6,458.8609	6,458.8609	0.6818	0.1911	6,532.8452
2024	68.5089	19.1203	24.4639	0.0643	3.1001	0.7534	3.8535	0.8289	0.7185	1.5474	0.0000	6,394.6598	6,394.6598	0.6717	0.1852	6,466.6424
Maximum	**68.6886**	**85.9730**	**68.1951**	**0.1491**	**9.4042**	**3.8570**	**13.2612**	**4.1244**	**3.5507**	**7.6751**	**0.0000**	**14,563.2586**	**14,563.2586**	**3.9229**	**0.2022**	**14,707.1247**

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					
2022	8.2488	85.9730	68.1951	0.1491	4.9434	3.8570	8.5852	1.9888	3.5507	5.5395	0.0000	14,563.2586	14,563.2586	3.9229	0.2022	14,707.1247
2023	68.6886	20.6026	25.1249	0.0651	3.1001	0.8517	3.9518	0.8289	0.8125	1.6414	0.0000	6,458.8609	6,458.8609	0.6818	0.1911	6,532.8452
2024	68.5089	19.1203	24.4639	0.0643	3.1001	0.7534	3.8535	0.8289	0.7185	1.5474	0.0000	6,394.6598	6,394.6598	0.6717	0.1852	6,466.6424
Maximum	**68.6886**	**85.9730**	**68.1951**	**0.1491**	**4.9434**	**3.8570**	**8.5852**	**1.9888**	**3.5507**	**5.5395**	**0.0000**	**14,563.2586**	**14,563.2586**	**3.9229**	**0.2022**	**14,707.1247**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	28.59	0.00	22.20	36.93	0.00	19.66	0.00	0.00	0.00	0.00	0.00	0.00

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Energy	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
Mobile	3.1665	3.7710	32.2126	0.0726	7.9903	0.0538	8.0441	2.1293	0.0500	2.1793		7,526.8455	7,526.8455	0.4820	0.3289	7,636.9184
Total	**8.5711**	**7.7515**	**50.6845**	**0.0977**	**7.9903**	**0.4533**	**8.4436**	**2.1293**	**0.4496**	**2.5788**	**0.0000**	**12,390.9076**	**12,390.9076**	**0.6039**	**0.4176**	**12,530.4368**

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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Energy	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
Mobile	2.9020	3.2976	28.0903	0.0615	6.7392	0.0461	6.7853	1.7959	0.0428	1.8387		6,374.2925	6,374.2925	0.4271	0.2877	6,470.6900
Total	**8.3067**	**7.2781**	**46.5622**	**0.0865**	**6.7392**	**0.4456**	**7.1848**	**1.7959**	**0.4423**	**2.2382**	**0.0000**	**11,238.3546**	**11,238.3546**	**0.5490**	**0.3763**	**11,364.2085**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	**3.09**	**6.11**	**8.13**	**11.39**	**15.66**	**1.71**	**14.91**	**15.66**	**1.61**	**13.21**	**0.00**	**9.30**	**9.30**	**9.09**	**9.89**	**9.31**

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	7/1/2022	9/1/2022	5	45	
2	Grading	Grading	8/1/2022	11/1/2022	5	67	
3	Building Construction	Building Construction	9/15/2022	9/30/2024	5	533	
4	Paving	Paving	9/1/2022	10/15/2022	5	32	
5	Architectural Coating	Architectural Coating	4/1/2023	9/15/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,832 (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	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	209.00	46.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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					4.3808	0.0000	4.3808	2.2469	0.0000	2.2469			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**4.3808**	**1.6126**	**5.9934**	**2.2469**	**1.4836**	**3.7305**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	0.0571	2.2622	0.5276	8.4100e-003	0.2429	0.0182	0.2611	0.0666	0.0174	0.0840		922.3406	922.3406	0.0494	0.1464	967.2105
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
Worker	0.0652	0.0477	0.6211	1.7200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		174.4750	174.4750	4.8700e-003	4.6700e-003	175.9891
Total	**0.1223**	**2.3099**	**1.1487**	**0.0101**	**0.4441**	**0.0194**	**0.4635**	**0.1200**	**0.0185**	**0.1384**		**1,096.8156**	**1,096.8156**	**0.0543**	**0.1511**	**1,143.1996**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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					1.9714	0.0000	1.9714	1.0111	0.0000	1.0111			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**1.9714**	**1.6126**	**3.5839**	**1.0111**	**1.4836**	**2.4947**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	0.0571	2.2622	0.5276	8.4100e-003	0.2429	0.0182	0.2611	0.0666	0.0174	0.0840		922.3406	922.3406	0.0494	0.1464	967.2105
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
Worker	0.0652	0.0477	0.6211	1.7200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		174.4750	174.4750	4.8700e-003	4.6700e-003	175.9891
Total	**0.1223**	**2.3099**	**1.1487**	**0.0101**	**0.4441**	**0.0194**	**0.4635**	**0.1200**	**0.0185**	**0.1384**		**1,096.8156**	**1,096.8156**	**0.0543**	**0.1511**	**1,143.1996**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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					4.1210	0.0000	4.1210	1.6360	0.0000	1.6360			0.0000			0.0000
Off-Road	3.6649	39.0948	29.2520	0.0626		1.6447	1.6447		1.5139	1.5139		6,045.8899	6,045.8899	1.9478		6,094.5847
Total	**3.6649**	**39.0948**	**29.2520**	**0.0626**	**4.1210**	**1.6447**	**5.7657**	**1.6360**	**1.5139**	**3.1499**		**6,045.8899**	**6,045.8899**	**1.9478**		**6,094.5847**

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	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
Worker	0.0833	0.0610	0.7936	2.1900e-003	0.2571	1.5400e-003	0.2586	0.0682	1.4100e-003	0.0696		222.9402	222.9402	6.2200e-003	5.9700e-003	224.8750
Total	**0.0833**	**0.0610**	**0.7936**	**2.1900e-003**	**0.2571**	**1.5400e-003**	**0.2586**	**0.0682**	**1.4100e-003**	**0.0696**		**222.9402**	**222.9402**	**6.2200e-003**	**5.9700e-003**	**224.8750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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					1.8545	0.0000	1.8545	0.7362	0.0000	0.7362			0.0000			0.0000
Off-Road	3.6649	39.0948	29.2520	0.0626		1.6447	1.6447		1.5139	1.5139	0.0000	6,045.8899	6,045.8899	1.9478		6,094.5847
Total	**3.6649**	**39.0948**	**29.2520**	**0.0626**	**1.8545**	**1.6447**	**3.4991**	**0.7362**	**1.5139**	**2.2501**	**0.0000**	**6,045.8899**	**6,045.8899**	**1.9478**		**6,094.5847**

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	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
Worker	0.0833	0.0610	0.7936	2.1900e-003	0.2571	1.5400e-003	0.2586	0.0682	1.4100e-003	0.0696		222.9402	222.9402	6.2200e-003	5.9700e-003	224.8750
Total	**0.0833**	**0.0610**	**0.7936**	**2.1900e-003**	**0.2571**	**1.5400e-003**	**0.2586**	**0.0682**	**1.4100e-003**	**0.0696**		**222.9402**	**222.9402**	**6.2200e-003**	**5.9700e-003**	**224.8750**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	1.8629	18.6001	14.7655	0.0306		0.8555	0.8555		0.8132	0.8132		2,905.4128	2,905.4128	0.5794		2,919.8977
Total	**1.8629**	**18.6001**	**14.7655**	**0.0306**		**0.8555**	**0.8555**		**0.8132**	**0.8132**		**2,905.4128**	**2,905.4128**	**0.5794**		**2,919.8977**

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	0.0000
Vendor	0.0824	2.2339	0.7602	8.8000e-003	0.2946	0.0225	0.3170	0.0848	0.0215	0.1063		946.5526	946.5526	0.0316	0.1373	988.2698
Worker	0.7573	0.5540	7.2117	0.0199	2.3361	0.0140	2.3501	0.6196	0.0129	0.6324		2,025.8483	2,025.8483	0.0565	0.0543	2,043.4292
Total	**0.8396**	**2.7878**	**7.9719**	**0.0287**	**2.6307**	**0.0364**	**2.6671**	**0.7044**	**0.0343**	**0.7387**		**2,972.4009**	**2,972.4009**	**0.0881**	**0.1916**	**3,031.6990**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	1.8629	18.6001	14.7655	0.0306		0.8555	0.8555		0.8132	0.8132	0.0000	2,905.4128	2,905.4128	0.5794		2,919.8977
Total	**1.8629**	**18.6001**	**14.7655**	**0.0306**		**0.8555**	**0.8555**		**0.8132**	**0.8132**	**0.0000**	**2,905.4128**	**2,905.4128**	**0.5794**		**2,919.8977**

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	0.0000
Vendor	0.0824	2.2339	0.7602	8.8000e-003	0.2946	0.0225	0.3170	0.0848	0.0215	0.1063		946.5526	946.5526	0.0316	0.1373	988.2698
Worker	0.7573	0.5540	7.2117	0.0199	2.3361	0.0140	2.3501	0.6196	0.0129	0.6324		2,025.8483	2,025.8483	0.0565	0.0543	2,043.4292
Total	**0.8396**	**2.7878**	**7.9719**	**0.0287**	**2.6307**	**0.0364**	**2.6671**	**0.7044**	**0.0343**	**0.7387**		**2,972.4009**	**2,972.4009**	**0.0881**	**0.1916**	**3,031.6990**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.7311	16.9586	14.6456	0.0306		0.7553	0.7553		0.7178	0.7178		2,904.9793	2,904.9793	0.5738		2,919.3236
Total	**1.7311**	**16.9586**	**14.6456**	**0.0306**		**0.7553**	**0.7553**		**0.7178**	**0.7178**		**2,904.9793**	**2,904.9793**	**0.5738**		**2,919.3236**

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	0.0000
Vendor	0.0487	1.7526	0.6786	8.3900e-003	0.2946	9.7700e-003	0.3043	0.0848	9.3500e-003	0.0942		903.3726	903.3726	0.0302	0.1309	943.1332
Worker	0.7047	0.4900	6.6527	0.0193	2.3361	0.0132	2.3493	0.6196	0.0121	0.6317		1,972.6444	1,972.6444	0.0508	0.0501	1,988.8468
Total	**0.7534**	**2.2426**	**7.3313**	**0.0277**	**2.6307**	**0.0229**	**2.6536**	**0.7044**	**0.0215**	**0.7258**		**2,876.0170**	**2,876.0170**	**0.0810**	**0.1810**	**2,931.9800**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.7311	16.9586	14.6456	0.0306		0.7553	0.7553		0.7178	0.7178	0.0000	2,904.9793	2,904.9793	0.5738		2,919.3236
Total	**1.7311**	**16.9586**	**14.6456**	**0.0306**		**0.7553**	**0.7553**		**0.7178**	**0.7178**	**0.0000**	**2,904.9793**	**2,904.9793**	**0.5738**		**2,919.3236**

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	0.0000
Vendor	0.0487	1.7526	0.6786	8.3900e-003	0.2946	9.7700e-003	0.3043	0.0848	9.3500e-003	0.0942		903.3726	903.3726	0.0302	0.1309	943.1332
Worker	0.7047	0.4900	6.6527	0.0193	2.3361	0.0132	2.3493	0.6196	0.0121	0.6317		1,972.6444	1,972.6444	0.0508	0.0501	1,988.8468
Total	**0.7534**	**2.2426**	**7.3313**	**0.0277**	**2.6307**	**0.0229**	**2.6536**	**0.7044**	**0.0215**	**0.7258**		**2,876.0170**	**2,876.0170**	**0.0810**	**0.1810**	**2,931.9800**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.6172	15.6151	14.5297	0.0306		0.6675	0.6675		0.6343	0.6343		2,904.6212	2,904.6212	0.5704		2,918.8804
Total	**1.6172**	**15.6151**	**14.5297**	**0.0306**		**0.6675**	**0.6675**		**0.6343**	**0.6343**		**2,904.6212**	**2,904.6212**	**0.5704**		**2,918.8804**

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	0.0000
Vendor	0.0474	1.7606	0.6675	8.2600e-003	0.2946	9.8000e-003	0.3043	0.0848	9.3700e-003	0.0942		890.4032	890.4032	0.0302	0.1292	929.6581
Worker	0.6601	0.4378	6.2089	0.0187	2.3361	0.0126	2.3487	0.6196	0.0116	0.6312		1,930.2834	1,930.2834	0.0461	0.0466	1,945.3318
Total	**0.7075**	**2.1984**	**6.8764**	**0.0270**	**2.6307**	**0.0224**	**2.6531**	**0.7044**	**0.0210**	**0.7253**		**2,820.6866**	**2,820.6866**	**0.0763**	**0.1758**	**2,874.9899**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.6172	15.6151	14.5297	0.0306		0.6675	0.6675		0.6343	0.6343	0.0000	2,904.6212	2,904.6212	0.5704		2,918.8804
Total	**1.6172**	**15.6151**	**14.5297**	**0.0306**		**0.6675**	**0.6675**		**0.6343**	**0.6343**	**0.0000**	**2,904.6212**	**2,904.6212**	**0.5704**		**2,918.8804**

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	0.0000
Vendor	0.0474	1.7606	0.6675	8.2600e-003	0.2946	9.8000e-003	0.3043	0.0848	9.3700e-003	0.0942		890.4032	890.4032	0.0302	0.1292	929.6581
Worker	0.6601	0.4378	6.2089	0.0187	2.3361	0.0126	2.3487	0.6196	0.0116	0.6312		1,930.2834	1,930.2834	0.0461	0.0466	1,945.3318
Total	**0.7075**	**2.1984**	**6.8764**	**0.0270**	**2.6307**	**0.0224**	**2.6531**	**0.7044**	**0.0210**	**0.7253**		**2,820.6866**	**2,820.6866**	**0.0763**	**0.1758**	**2,874.9899**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.1429	11.3762	14.7910	0.0233		0.5777	0.5777		0.5322	0.5322		2,242.1397	2,242.1397	0.7176		2,260.0792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1429**	**11.3762**	**14.7910**	**0.0233**		**0.5777**	**0.5777**		**0.5322**	**0.5322**		**2,242.1397**	**2,242.1397**	**0.7176**		**2,260.0792**

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	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
Worker	0.0652	0.0477	0.6211	1.7200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		174.4750	174.4750	4.8700e-003	4.6700e-003	175.9891
Total	**0.0652**	**0.0477**	**0.6211**	**1.7200e-003**	**0.2012**	**1.2000e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**174.4750**	**174.4750**	**4.8700e-003**	**4.6700e-003**	**175.9891**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.1429	11.3762	14.7910	0.0233		0.5777	0.5777		0.5322	0.5322	0.0000	2,242.1397	2,242.1397	0.7176		2,260.0792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1429**	**11.3762**	**14.7910**	**0.0233**		**0.5777**	**0.5777**		**0.5322**	**0.5322**	**0.0000**	**2,242.1397**	**2,242.1397**	**0.7176**		**2,260.0792**

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	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
Worker	0.0652	0.0477	0.6211	1.7200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		174.4750	174.4750	4.8700e-003	4.6700e-003	175.9891
Total	**0.0652**	**0.0477**	**0.6211**	**1.7200e-003**	**0.2012**	**1.2000e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**174.4750**	**174.4750**	**4.8700e-003**	**4.6700e-003**	**175.9891**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**66.0624**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1416	0.0985	1.3369	3.8700e-003	0.4695	2.6400e-003	0.4721	0.1245	2.4300e-003	0.1269		396.4166	396.4166	0.0102	0.0101	399.6726
Total	**0.1416**	**0.0985**	**1.3369**	**3.8700e-003**	**0.4695**	**2.6400e-003**	**0.4721**	**0.1245**	**2.4300e-003**	**0.1269**		**396.4166**	**396.4166**	**0.0102**	**0.0101**	**399.6726**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**66.0624**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1416	0.0985	1.3369	3.8700e-003	0.4695	2.6400e-003	0.4721	0.1245	2.4300e-003	0.1269		396.4166	396.4166	0.0102	0.0101	399.6726
Total	**0.1416**	**0.0985**	**1.3369**	**3.8700e-003**	**0.4695**	**2.6400e-003**	**0.4721**	**0.1245**	**2.4300e-003**	**0.1269**		**396.4166**	**396.4166**	**0.0102**	**0.0101**	**399.6726**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**66.0515**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1327	0.0880	1.2477	3.7600e-003	0.4695	2.5300e-003	0.4720	0.1245	2.3300e-003	0.1268		387.9039	387.9039	9.2600e-003	9.3700e-003	390.9279
Total	**0.1327**	**0.0880**	**1.2477**	**3.7600e-003**	**0.4695**	**2.5300e-003**	**0.4720**	**0.1245**	**2.3300e-003**	**0.1268**		**387.9039**	**387.9039**	**9.2600e-003**	**9.3700e-003**	**390.9279**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**66.0515**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1327	0.0880	1.2477	3.7600e-003	0.4695	2.5300e-003	0.4720	0.1245	2.3300e-003	0.1268		387.9039	387.9039	9.2600e-003	9.3700e-003	390.9279
Total	**0.1327**	**0.0880**	**1.2477**	**3.7600e-003**	**0.4695**	**2.5300e-003**	**0.4720**	**0.1245**	**2.3300e-003**	**0.1268**		**387.9039**	**387.9039**	**9.2600e-003**	**9.3700e-003**	**390.9279**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	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	2.9020	3.2976	28.0903	0.0615	6.7392	0.0461	6.7853	1.7959	0.0428	1.8387		6,374.2925	6,374.2925	0.4271	0.2877	6,470.6900
Unmitigated	3.1665	3.7710	32.2126	0.0726	7.9903	0.0538	8.0441	2.1293	0.0500	2.1793		7,526.8455	7,526.8455	0.4820	0.3289	7,636.9184

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,109.76	1,001.64	834.36	3,604,998	3,040,531
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	1,109.76	1,001.64	834.36	3,604,998	3,040,531

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721
Parking Lot	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721
Unenclosed Parking Structure	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
NaturalGas Unmitigated	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8038.25	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
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
Unenclosed Parking Structure	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		**0.0867**	**0.7408**	**0.3152**	**4.7300e-003**		**0.0599**	**0.0599**		**0.0599**	**0.0599**		**945.6769**	**945.6769**	**0.0181**	**0.0173**	**951.2966**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8.03825	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
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
Unenclosed Parking Structure	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		**0.0867**	**0.7408**	**0.3152**	**4.7300e-003**		**0.0599**	**0.0599**		**0.0599**	**0.0599**		**945.6769**	**945.6769**	**0.0181**	**0.0173**	**951.2966**

6.0 Area Detail

6.1 Mitigation Measures Area

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Unmitigated	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218

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	0.3609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	3.0456	1.2960	0.0194		0.2462	0.2462		0.2462	0.2462	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.1044
Landscaping	0.5093	0.1942	16.8607	8.9000e-004		0.0934	0.0934		0.0934	0.0934		30.3852	30.3852	0.0293		31.1174
Total	**5.3180**	**3.2398**	**18.1567**	**0.0203**		**0.3396**	**0.3396**		**0.3396**	**0.3396**	**0.0000**	**3,918.3852**	**3,918.3852**	**0.1038**	**0.0713**	**3,942.2218**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	3.0456	1.2960	0.0194		0.2462	0.2462		0.2462	0.2462	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.1044
Landscaping	0.5093	0.1942	16.8607	8.9000e-004		0.0934	0.0934		0.0934	0.0934		30.3852	30.3852	0.0293		31.1174
Total	**5.3180**	**3.2398**	**18.1567**	**0.0203**		**0.3396**	**0.3396**		**0.3396**	**0.3396**	**0.0000**	**3,918.3852**	**3,918.3852**	**0.1038**	**0.0713**	**3,942.2218**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Rialto Apartments AQ Analysis

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	164.00	Space	0.00	65,600.00	0
Unenclosed Parking Structure	204.00	Space	0.00	81,600.00	0
Apartments Mid Rise	204.00	Dwelling Unit	8.30	204,000.00	808

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	391	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated for CalEEmod 2020.4.0

Land Use - 8.3 acres according to site plan, lot acreage allocated to apartment land use

Construction Phase - As listed in Construction Schedule

Off-road Equipment - Air Compressor use assumed given nature of project

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment -

Trips and VMT -

Demolition - No demolition phase

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading -

Architectural Coating - SCAQMD rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - SCAQMD Rule 445

Land Use Change -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - project design features

Energy Mitigation - Compliance with 2019 energy code

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	533.00
tblConstructionPhase	NumDays	20.00	32.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	173.40	183.60
tblFireplaces	NumberWood	10.20	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LotAcreage	1.48	0.00
tblLandUse	LotAcreage	1.84	0.00
tblLandUse	LotAcreage	5.37	8.30
tblLandUse	Population	583.00	808.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	391
tblWoodstoves	NumberCatalytic	10.20	0.00
tblWoodstoves	NumberNoncatalytic	10.20	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	8.2399	85.8644	69.0848	0.1506	9.4042	3.8570	13.2612	4.1244	3.5506	7.6750	0.0000	14,712.3893	14,712.3893	3.9228	0.1983	14,855.0715
2023	68.6462	20.4695	25.9426	0.0665	3.1001	0.8516	3.9518	0.8289	0.8125	1.6414	0.0000	6,603.1875	6,603.1875	0.6811	0.1873	6,676.0242
2024	68.4671	18.9923	25.2223	0.0657	3.1001	0.7533	3.8535	0.8289	0.7185	1.5473	0.0000	6,535.7569	6,535.7569	0.6711	0.1817	6,606.6724
Maximum	**68.6462**	**85.8644**	**69.0848**	**0.1506**	**9.4042**	**3.8570**	**13.2612**	**4.1244**	**3.5506**	**7.6750**	**0.0000**	**14,712.3893**	**14,712.3893**	**3.9228**	**0.1983**	**14,855.0715**

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					
2022	8.2399	85.8644	69.0848	0.1506	4.9434	3.8570	8.5852	1.9888	3.5506	5.5394	0.0000	14,712.3893	14,712.3893	3.9228	0.1983	14,855.0715
2023	68.6462	20.4695	25.9426	0.0665	3.1001	0.8516	3.9518	0.8289	0.8125	1.6414	0.0000	6,603.1875	6,603.1875	0.6811	0.1873	6,676.0242
2024	68.4671	18.9923	25.2223	0.0657	3.1001	0.7533	3.8535	0.8289	0.7185	1.5473	0.0000	6,535.7569	6,535.7569	0.6711	0.1817	6,606.6724
Maximum	**68.6462**	**85.8644**	**69.0848**	**0.1506**	**4.9434**	**3.8570**	**8.5852**	**1.9888**	**3.5506**	**5.5394**	**0.0000**	**14,712.3893**	**14,712.3893**	**3.9228**	**0.1983**	**14,855.0715**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	28.59	0.00	22.20	36.93	0.00	19.66	0.00	0.00	0.00	0.00	0.00	0.00

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Energy	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
Mobile	3.2835	3.5096	33.4062	0.0762	7.9903	0.0538	8.0441	2.1293	0.0500	2.1793		7,893.6586	7,893.6586	0.4691	0.3166	7,999.7276
Total	**8.6881**	**7.4902**	**51.8781**	**0.1012**	**7.9903**	**0.4533**	**8.4436**	**2.1293**	**0.4495**	**2.5788**	**0.0000**	**12,757.7207**	**12,757.7207**	**0.5910**	**0.4052**	**12,893.2461**

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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Energy	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
Mobile	3.0206	3.0690	28.9544	0.0645	6.7392	0.0460	6.7852	1.7959	0.0428	1.8387		6,683.2907	6,683.2907	0.4138	0.2767	6,776.0886
Total	**8.4253**	**7.0495**	**47.4264**	**0.0895**	**6.7392**	**0.4455**	**7.1848**	**1.7959**	**0.4423**	**2.2382**	**0.0000**	**11,547.3528**	**11,547.3528**	**0.5357**	**0.3653**	**11,669.6070**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	**3.03**	**5.88**	**8.58**	**11.54**	**15.66**	**1.71**	**14.91**	**15.66**	**1.60**	**13.21**	**0.00**	**9.49**	**9.49**	**9.36**	**9.84**	**9.49**

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	7/1/2022	9/1/2022	5	45	
2	Grading	Grading	8/1/2022	11/1/2022	5	67	
3	Building Construction	Building Construction	9/15/2022	9/30/2024	5	533	
4	Paving	Paving	9/1/2022	10/15/2022	5	32	
5	Architectural Coating	Architectural Coating	4/1/2023	9/15/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,832 (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	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	209.00	46.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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					4.3808	0.0000	4.3808	2.2469	0.0000	2.2469			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**4.3808**	**1.6126**	**5.9934**	**2.2469**	**1.4836**	**3.7305**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	0.0587	2.1670	0.5179	8.4100e-003	0.2429	0.0181	0.2611	0.0666	0.0173	0.0839		922.0010	922.0010	0.0495	0.1464	966.8560
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
Worker	0.0620	0.0436	0.6871	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		185.2465	185.2465	4.8100e-003	4.4000e-003	186.6790
Total	**0.1207**	**2.2106**	**1.2049**	**0.0102**	**0.4441**	**0.0193**	**0.4635**	**0.1200**	**0.0184**	**0.1384**		**1,107.2475**	**1,107.2475**	**0.0543**	**0.1508**	**1,153.5350**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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					1.9714	0.0000	1.9714	1.0111	0.0000	1.0111			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**1.9714**	**1.6126**	**3.5839**	**1.0111**	**1.4836**	**2.4947**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	0.0587	2.1670	0.5179	8.4100e-003	0.2429	0.0181	0.2611	0.0666	0.0173	0.0839		922.0010	922.0010	0.0495	0.1464	966.8560
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
Worker	0.0620	0.0436	0.6871	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		185.2465	185.2465	4.8100e-003	4.4000e-003	186.6790
Total	**0.1207**	**2.2106**	**1.2049**	**0.0102**	**0.4441**	**0.0193**	**0.4635**	**0.1200**	**0.0184**	**0.1384**		**1,107.2475**	**1,107.2475**	**0.0543**	**0.1508**	**1,153.5350**

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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					4.1210	0.0000	4.1210	1.6360	0.0000	1.6360			0.0000			0.0000
Off-Road	3.6649	39.0948	29.2520	0.0626		1.6447	1.6447		1.5139	1.5139		6,045.8899	6,045.8899	1.9478		6,094.5847
Total	**3.6649**	**39.0948**	**29.2520**	**0.0626**	**4.1210**	**1.6447**	**5.7657**	**1.6360**	**1.5139**	**3.1499**		**6,045.8899**	**6,045.8899**	**1.9478**		**6,094.5847**

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	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
Worker	0.0792	0.0557	0.8779	2.3300e-003	0.2571	1.5400e-003	0.2586	0.0682	1.4100e-003	0.0696		236.7039	236.7039	6.1500e-003	5.6300e-003	238.5343
Total	**0.0792**	**0.0557**	**0.8779**	**2.3300e-003**	**0.2571**	**1.5400e-003**	**0.2586**	**0.0682**	**1.4100e-003**	**0.0696**		**236.7039**	**236.7039**	**6.1500e-003**	**5.6300e-003**	**238.5343**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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					1.8545	0.0000	1.8545	0.7362	0.0000	0.7362			0.0000			0.0000
Off-Road	3.6649	39.0948	29.2520	0.0626		1.6447	1.6447		1.5139	1.5139	0.0000	6,045.8899	6,045.8899	1.9478		6,094.5847
Total	**3.6649**	**39.0948**	**29.2520**	**0.0626**	**1.8545**	**1.6447**	**3.4991**	**0.7362**	**1.5139**	**2.2501**	**0.0000**	**6,045.8899**	**6,045.8899**	**1.9478**		**6,094.5847**

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	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
Worker	0.0792	0.0557	0.8779	2.3300e-003	0.2571	1.5400e-003	0.2586	0.0682	1.4100e-003	0.0696		236.7039	236.7039	6.1500e-003	5.6300e-003	238.5343
Total	**0.0792**	**0.0557**	**0.8779**	**2.3300e-003**	**0.2571**	**1.5400e-003**	**0.2586**	**0.0682**	**1.4100e-003**	**0.0696**		**236.7039**	**236.7039**	**6.1500e-003**	**5.6300e-003**	**238.5343**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	1.8629	18.6001	14.7655	0.0306		0.8555	0.8555		0.8132	0.8132		2,905.4128	2,905.4128	0.5794		2,919.8977
Total	**1.8629**	**18.6001**	**14.7655**	**0.0306**		**0.8555**	**0.8555**		**0.8132**	**0.8132**		**2,905.4128**	**2,905.4128**	**0.5794**		**2,919.8977**

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	0.0000
Vendor	0.0839	2.1405	0.7338	8.8000e-003	0.2946	0.0224	0.3169	0.0848	0.0214	0.1062		946.0790	946.0790	0.0317	0.1372	987.7457
Worker	0.7198	0.5064	7.9776	0.0211	2.3361	0.0140	2.3501	0.6196	0.0129	0.6324		2,150.9176	2,150.9176	0.0559	0.0511	2,167.5508
Total	**0.8037**	**2.6468**	**8.7114**	**0.0299**	**2.6307**	**0.0363**	**2.6670**	**0.7044**	**0.0343**	**0.7386**		**3,096.9966**	**3,096.9966**	**0.0876**	**0.1883**	**3,155.2966**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	1.8629	18.6001	14.7655	0.0306		0.8555	0.8555		0.8132	0.8132	0.0000	2,905.4128	2,905.4128	0.5794		2,919.8977
Total	**1.8629**	**18.6001**	**14.7655**	**0.0306**		**0.8555**	**0.8555**		**0.8132**	**0.8132**	**0.0000**	**2,905.4128**	**2,905.4128**	**0.5794**		**2,919.8977**

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	0.0000
Vendor	0.0839	2.1405	0.7338	8.8000e-003	0.2946	0.0224	0.3169	0.0848	0.0214	0.1062		946.0790	946.0790	0.0317	0.1372	987.7457
Worker	0.7198	0.5064	7.9776	0.0211	2.3361	0.0140	2.3501	0.6196	0.0129	0.6324		2,150.9176	2,150.9176	0.0559	0.0511	2,167.5508
Total	**0.8037**	**2.6468**	**8.7114**	**0.0299**	**2.6307**	**0.0363**	**2.6670**	**0.7044**	**0.0343**	**0.7386**		**3,096.9966**	**3,096.9966**	**0.0876**	**0.1883**	**3,155.2966**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.7311	16.9586	14.6456	0.0306		0.7553	0.7553		0.7178	0.7178		2,904.9793	2,904.9793	0.5738		2,919.3236
Total	**1.7311**	**16.9586**	**14.6456**	**0.0306**		**0.7553**	**0.7553**		**0.7178**	**0.7178**		**2,904.9793**	**2,904.9793**	**0.5738**		**2,919.3236**

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	0.0000
Vendor	0.0509	1.6698	0.6574	8.3700e-003	0.2946	9.7200e-003	0.3043	0.0848	9.3000e-003	0.0941		901.7422	901.7422	0.0303	0.1305	941.4022
Worker	0.6676	0.4481	7.3512	0.0205	2.3361	0.0132	2.3493	0.6196	0.0121	0.6317		2,094.1782	2,094.1782	0.0501	0.0472	2,109.5089
Total	**0.7185**	**2.1179**	**8.0086**	**0.0288**	**2.6307**	**0.0229**	**2.6536**	**0.7044**	**0.0214**	**0.7258**		**2,995.9205**	**2,995.9205**	**0.0804**	**0.1778**	**3,050.9111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.7311	16.9586	14.6456	0.0306		0.7553	0.7553		0.7178	0.7178	0.0000	2,904.9793	2,904.9793	0.5738		2,919.3236
Total	**1.7311**	**16.9586**	**14.6456**	**0.0306**		**0.7553**	**0.7553**		**0.7178**	**0.7178**	**0.0000**	**2,904.9793**	**2,904.9793**	**0.5738**		**2,919.3236**

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	0.0000
Vendor	0.0509	1.6698	0.6574	8.3700e-003	0.2946	9.7200e-003	0.3043	0.0848	9.3000e-003	0.0941		901.7422	901.7422	0.0303	0.1305	941.4022
Worker	0.6676	0.4481	7.3512	0.0205	2.3361	0.0132	2.3493	0.6196	0.0121	0.6317		2,094.1782	2,094.1782	0.0501	0.0472	2,109.5089
Total	**0.7185**	**2.1179**	**8.0086**	**0.0288**	**2.6307**	**0.0229**	**2.6536**	**0.7044**	**0.0214**	**0.7258**		**2,995.9205**	**2,995.9205**	**0.0804**	**0.1778**	**3,050.9111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.6172	15.6151	14.5297	0.0306		0.6675	0.6675		0.6343	0.6343		2,904.6212	2,904.6212	0.5704		2,918.8804
Total	**1.6172**	**15.6151**	**14.5297**	**0.0306**		**0.6675**	**0.6675**		**0.6343**	**0.6343**		**2,904.6212**	**2,904.6212**	**0.5704**		**2,918.8804**

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	0.0000
Vendor	0.0497	1.6774	0.6466	8.2500e-003	0.2946	9.7500e-003	0.3043	0.0848	9.3200e-003	0.0941		888.7699	888.7699	0.0303	0.1289	927.9267
Worker	0.6234	0.4005	6.8577	0.0199	2.3361	0.0126	2.3487	0.6196	0.0116	0.6312		2,049.1307	2,049.1307	0.0454	0.0440	2,063.3721
Total	**0.6731**	**2.0779**	**7.5043**	**0.0281**	**2.6307**	**0.0224**	**2.6530**	**0.7044**	**0.0209**	**0.7253**		**2,937.9005**	**2,937.9005**	**0.0757**	**0.1728**	**2,991.2988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.6172	15.6151	14.5297	0.0306		0.6675	0.6675		0.6343	0.6343	0.0000	2,904.6212	2,904.6212	0.5704		2,918.8804
Total	**1.6172**	**15.6151**	**14.5297**	**0.0306**		**0.6675**	**0.6675**		**0.6343**	**0.6343**	**0.0000**	**2,904.6212**	**2,904.6212**	**0.5704**		**2,918.8804**

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	0.0000
Vendor	0.0497	1.6774	0.6466	8.2500e-003	0.2946	9.7500e-003	0.3043	0.0848	9.3200e-003	0.0941		888.7699	888.7699	0.0303	0.1289	927.9267
Worker	0.6234	0.4005	6.8577	0.0199	2.3361	0.0126	2.3487	0.6196	0.0116	0.6312		2,049.1307	2,049.1307	0.0454	0.0440	2,063.3721
Total	**0.6731**	**2.0779**	**7.5043**	**0.0281**	**2.6307**	**0.0224**	**2.6530**	**0.7044**	**0.0209**	**0.7253**		**2,937.9005**	**2,937.9005**	**0.0757**	**0.1728**	**2,991.2988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.1429	11.3762	14.7910	0.0233		0.5777	0.5777		0.5322	0.5322		2,242.1397	2,242.1397	0.7176		2,260.0792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1429**	**11.3762**	**14.7910**	**0.0233**		**0.5777**	**0.5777**		**0.5322**	**0.5322**		**2,242.1397**	**2,242.1397**	**0.7176**		**2,260.0792**

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	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
Worker	0.0620	0.0436	0.6871	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		185.2465	185.2465	4.8100e-003	4.4000e-003	186.6790
Total	**0.0620**	**0.0436**	**0.6871**	**1.8200e-003**	**0.2012**	**1.2000e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**185.2465**	**185.2465**	**4.8100e-003**	**4.4000e-003**	**186.6790**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	1.1429	11.3762	14.7910	0.0233		0.5777	0.5777		0.5322	0.5322	0.0000	2,242.1397	2,242.1397	0.7176		2,260.0792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1429**	**11.3762**	**14.7910**	**0.0233**		**0.5777**	**0.5777**		**0.5322**	**0.5322**	**0.0000**	**2,242.1397**	**2,242.1397**	**0.7176**		**2,260.0792**

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	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
Worker	0.0620	0.0436	0.6871	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1100e-003	0.0545		185.2465	185.2465	4.8100e-003	4.4000e-003	186.6790
Total	**0.0620**	**0.0436**	**0.6871**	**1.8200e-003**	**0.2012**	**1.2000e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**185.2465**	**185.2465**	**4.8100e-003**	**4.4000e-003**	**186.6790**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**66.0624**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1342	0.0900	1.4773	4.1100e-003	0.4695	2.6400e-003	0.4721	0.1245	2.4300e-003	0.1269		420.8396	420.8396	0.0101	9.4900e-003	423.9205
Total	**0.1342**	**0.0900**	**1.4773**	**4.1100e-003**	**0.4695**	**2.6400e-003**	**0.4721**	**0.1245**	**2.4300e-003**	**0.1269**		**420.8396**	**420.8396**	**0.0101**	**9.4900e-003**	**423.9205**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**66.0624**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1342	0.0900	1.4773	4.1100e-003	0.4695	2.6400e-003	0.4721	0.1245	2.4300e-003	0.1269		420.8396	420.8396	0.0101	9.4900e-003	423.9205
Total	**0.1342**	**0.0900**	**1.4773**	**4.1100e-003**	**0.4695**	**2.6400e-003**	**0.4721**	**0.1245**	**2.4300e-003**	**0.1269**		**420.8396**	**420.8396**	**0.0101**	**9.4900e-003**	**423.9205**

3.6 Architectural Coating - 2024

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**66.0515**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1253	0.0805	1.3781	3.9900e-003	0.4695	2.5300e-003	0.4720	0.1245	2.3300e-003	0.1268		411.7870	411.7870	9.1300e-003	8.8400e-003	414.6489
Total	**0.1253**	**0.0805**	**1.3781**	**3.9900e-003**	**0.4695**	**2.5300e-003**	**0.4720**	**0.1245**	**2.3300e-003**	**0.1268**		**411.7870**	**411.7870**	**9.1300e-003**	**8.8400e-003**	**414.6489**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	65.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**66.0515**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1253	0.0805	1.3781	3.9900e-003	0.4695	2.5300e-003	0.4720	0.1245	2.3300e-003	0.1268		411.7870	411.7870	9.1300e-003	8.8400e-003	414.6489
Total	**0.1253**	**0.0805**	**1.3781**	**3.9900e-003**	**0.4695**	**2.5300e-003**	**0.4720**	**0.1245**	**2.3300e-003**	**0.1268**		**411.7870**	**411.7870**	**9.1300e-003**	**8.8400e-003**	**414.6489**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	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	3.0206	3.0690	28.9544	0.0645	6.7392	0.0460	6.7852	1.7959	0.0428	1.8387		6,683.2907	6,683.2907	0.4138	0.2767	6,776.0886
Unmitigated	3.2835	3.5096	33.4062	0.0762	7.9903	0.0538	8.0441	2.1293	0.0500	2.1793		7,893.6586	7,893.6586	0.4691	0.3166	7,999.7276

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,109.76	1,001.64	834.36	3,604,998	3,040,531
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	1,109.76	1,001.64	834.36	3,604,998	3,040,531

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721
Parking Lot	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721
Unenclosed Parking Structure	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
NaturalGas Unmitigated	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8038.25	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
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
Unenclosed Parking Structure	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		**0.0867**	**0.7408**	**0.3152**	**4.7300e-003**		**0.0599**	**0.0599**		**0.0599**	**0.0599**		**945.6769**	**945.6769**	**0.0181**	**0.0173**	**951.2966**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8.03825	0.0867	0.7408	0.3152	4.7300e-003		0.0599	0.0599		0.0599	0.0599		945.6769	945.6769	0.0181	0.0173	951.2966
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
Unenclosed Parking Structure	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		**0.0867**	**0.7408**	**0.3152**	**4.7300e-003**		**0.0599**	**0.0599**		**0.0599**	**0.0599**		**945.6769**	**945.6769**	**0.0181**	**0.0173**	**951.2966**

6.0 Area Detail

6.1 Mitigation Measures Area

Rialto Apartments AQ Analysis - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218
Unmitigated	5.3180	3.2398	18.1567	0.0203		0.3396	0.3396		0.3396	0.3396	0.0000	3,918.3852	3,918.3852	0.1038	0.0713	3,942.2218

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	0.3609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	3.0456	1.2960	0.0194		0.2462	0.2462		0.2462	0.2462	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.1044
Landscaping	0.5093	0.1942	16.8607	8.9000e-004		0.0934	0.0934		0.0934	0.0934		30.3852	30.3852	0.0293		31.1174
Total	**5.3180**	**3.2398**	**18.1567**	**0.0203**		**0.3396**	**0.3396**		**0.3396**	**0.3396**	**0.0000**	**3,918.3852**	**3,918.3852**	**0.1038**	**0.0713**	**3,942.2218**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0913					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	3.0456	1.2960	0.0194		0.2462	0.2462		0.2462	0.2462	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.1044
Landscaping	0.5093	0.1942	16.8607	8.9000e-004		0.0934	0.0934		0.0934	0.0934		30.3852	30.3852	0.0293		31.1174
Total	**5.3180**	**3.2398**	**18.1567**	**0.0203**		**0.3396**	**0.3396**		**0.3396**	**0.3396**	**0.0000**	**3,918.3852**	**3,918.3852**	**0.1038**	**0.0713**	**3,942.2218**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Rialto Apartments GHG Analysis

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	164.00	Space	0.00	65,600.00	0
Unenclosed Parking Structure	204.00	Space	0.00	81,600.00	0
Apartments Mid Rise	204.00	Dwelling Unit	8.30	204,000.00	808

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	391	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated for CalEEmod 2020.4.0

Land Use - 8.3 acres according to site plan, lot acreage allocated to apartment land use

Construction Phase - As listed in Construction Schedule

Off-road Equipment - Air Compressor use assumed given nature of project

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment - applicant provided equipment list

Off-road Equipment -

Trips and VMT -

Demolition - No demolition phase

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading -

Architectural Coating - SCAQMD rule 1113

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - SCAQMD Rule 445

Land Use Change -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - project design features

Energy Mitigation - Compliance with 2019 energy code

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	533.00
tblConstructionPhase	NumDays	20.00	32.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	173.40	183.60
tblFireplaces	NumberWood	10.20	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LotAcreage	1.48	0.00
tblLandUse	LotAcreage	1.84	0.00
tblLandUse	LotAcreage	5.37	8.30
tblLandUse	Population	583.00	808.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	CO2IntensityFactor	390.98	391
tblWoodstoves	NumberCatalytic	10.20	0.00
tblWoodstoves	NumberNoncatalytic	10.20	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	0.3206	3.1158	2.6061	5.9500e-003	0.3575	0.1355	0.4930	0.1378	0.1257	0.2635	0.0000	529.7794	529.7794	0.1186	0.0101	535.7428
2023	6.7701	2.6344	3.1902	8.2900e-003	0.3807	0.1083	0.4891	0.1020	0.1033	0.2052	0.0000	745.7192	745.7192	0.0796	0.0223	754.3633
2024	6.3441	1.8677	2.3997	6.3000e-003	0.2958	0.0735	0.3693	0.0792	0.0701	0.1493	0.0000	568.2094	568.2094	0.0596	0.0165	574.6112
Maximum	**6.7701**	**3.1158**	**3.1902**	**8.2900e-003**	**0.3807**	**0.1355**	**0.4930**	**0.1378**	**0.1257**	**0.2635**	**0.0000**	**745.7192**	**745.7192**	**0.1186**	**0.0223**	**754.3633**

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					
2022	0.3206	3.1158	2.6061	5.9500e-003	0.2274	0.1355	0.3628	0.0798	0.1257	0.2055	0.0000	529.7789	529.7789	0.1186	0.0101	535.7423
2023	6.7701	2.6344	3.1902	8.2900e-003	0.3807	0.1083	0.4891	0.1020	0.1033	0.2052	0.0000	745.7188	745.7188	0.0796	0.0223	754.3629
2024	6.3441	1.8677	2.3997	6.3000e-003	0.2958	0.0735	0.3693	0.0792	0.0701	0.1493	0.0000	568.2090	568.2090	0.0596	0.0165	574.6109
Maximum	**6.7701**	**3.1158**	**3.1902**	**8.2900e-003**	**0.3807**	**0.1355**	**0.4891**	**0.1020**	**0.1257**	**0.2055**	**0.0000**	**745.7188**	**745.7188**	**0.1186**	**0.0223**	**754.3629**

Rialto Apartments GHG Analysis - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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**	**12.59**	**0.00**	**9.63**	**18.17**	**0.00**	**9.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2022**	**9-30-2022**	2.0746	2.0746
2	**10-1-2022**	**12-31-2022**	1.3495	1.3495
3	**1-1-2023**	**3-31-2023**	0.6970	0.6970
4	**4-1-2023**	**6-30-2023**	2.8963	2.8963
5	**7-1-2023**	**9-30-2023**	2.9281	2.9281
6	**10-1-2023**	**12-31-2023**	2.9339	2.9339
7	**1-1-2024**	**3-31-2024**	2.8479	2.8479
8	**4-1-2024**	**6-30-2024**	2.8424	2.8424
9	**7-1-2024**	**9-30-2024**	2.5122	2.5122
		Highest	2.9339	2.9339

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.8807	0.0623	2.1238	3.5000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	47.5348	47.5348	4.1700e-003	8.1000e-004	47.8798
Energy	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	329.2402	329.2402	0.0176	4.6400e-003	331.0614
Mobile	0.5401	0.6609	5.6386	0.0127	1.3571	9.2900e-003	1.3664	0.3622	8.6400e-003	0.3708	0.0000	1,194.1886	1,194.1886	0.0753	0.0519	1,211.5499
Waste						0.0000	0.0000		0.0000	0.0000	19.0487	0.0000	19.0487	1.1257	0.0000	47.1923
Water						0.0000	0.0000		0.0000	0.0000	4.2168	47.2051	51.4219	0.4371	0.0107	65.5404
Total	**1.4366**	**0.8584**	**7.8199**	**0.0139**	**1.3571**	**0.0350**	**1.3921**	**0.3622**	**0.0343**	**0.3965**	**23.2654**	**1,618.1688**	**1,641.4342**	**1.6599**	**0.0681**	**1,703.2238**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.8807	0.0623	2.1238	3.5000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	47.5348	47.5348	4.1700e-003	8.1000e-004	47.8798
Energy	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	185.9657	185.9657	5.4800e-003	3.1700e-003	187.0478
Mobile	0.4943	0.5773	4.9107	0.0108	1.1446	7.9600e-003	1.1526	0.3055	7.4000e-003	0.3129	0.0000	1,011.2616	1,011.2616	0.0667	0.0454	1,026.4534
Waste						0.0000	0.0000		0.0000	0.0000	19.0487	0.0000	19.0487	1.1257	0.0000	47.1923
Water						0.0000	0.0000		0.0000	0.0000	3.3734	41.0663	44.4397	0.3500	8.6000e-003	55.7515
Total	**1.3908**	**0.7748**	**7.0920**	**0.0120**	**1.1446**	**0.0336**	**1.1783**	**0.3055**	**0.0331**	**0.3386**	**22.4221**	**1,285.8284**	**1,308.2505**	**1.5520**	**0.0580**	**1,364.3248**

	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	**3.19**	**9.74**	**9.31**	**14.02**	**15.66**	**3.80**	**15.36**	**15.66**	**3.61**	**14.62**	**3.62**	**20.54**	**20.30**	**6.50**	**14.88**	**19.90**

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	7/1/2022	9/1/2022	5	45	
2	Grading	Grading	8/1/2022	11/1/2022	5	67	
3	Building Construction	Building Construction	9/15/2022	9/30/2024	5	533	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	9/1/2022	10/15/2022	5	32	
5	Architectural Coating	Architectural Coating	4/1/2023	9/15/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,832 (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	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Pumps	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	209.00	46.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

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					0.0986	0.0000	0.0986	0.0506	0.0000	0.0506	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0713	0.7444	0.4432	8.6000e-004		0.0363	0.0363		0.0334	0.0334	0.0000	75.2386	75.2386	0.0243	0.0000	75.8470
Total	**0.0713**	**0.7444**	**0.4432**	**8.6000e-004**	**0.0986**	**0.0363**	**0.1349**	**0.0506**	**0.0334**	**0.0839**	**0.0000**	**75.2386**	**75.2386**	**0.0243**	**0.0000**	**75.8470**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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	1.3000e-003	0.0514	0.0117	1.9000e-004	5.3800e-003	4.1000e-004	5.7900e-003	1.4800e-003	3.9000e-004	1.8700e-003	0.0000	18.8225	18.8225	1.0100e-003	2.9900e-003	19.7382
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	1.3600e-003	1.1000e-003	0.0144	4.0000e-005	4.4400e-003	3.0000e-005	4.4700e-003	1.1800e-003	2.0000e-005	1.2000e-003	0.0000	3.6160	3.6160	1.0000e-004	1.0000e-004	3.6473
Total	**2.6600e-003**	**0.0525**	**0.0261**	**2.3000e-004**	**9.8200e-003**	**4.4000e-004**	**0.0103**	**2.6600e-003**	**4.1000e-004**	**3.0700e-003**	**0.0000**	**22.4384**	**22.4384**	**1.1100e-003**	**3.0900e-003**	**23.3855**

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					0.0444	0.0000	0.0444	0.0228	0.0000	0.0228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0713	0.7444	0.4432	8.6000e-004		0.0363	0.0363		0.0334	0.0334	0.0000	75.2385	75.2385	0.0243	0.0000	75.8469
Total	**0.0713**	**0.7444**	**0.4432**	**8.6000e-004**	**0.0444**	**0.0363**	**0.0806**	**0.0228**	**0.0334**	**0.0561**	**0.0000**	**75.2385**	**75.2385**	**0.0243**	**0.0000**	**75.8469**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

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	1.3000e-003	0.0514	0.0117	1.9000e-004	5.3800e-003	4.1000e-004	5.7900e-003	1.4800e-003	3.9000e-004	1.8700e-003	0.0000	18.8225	18.8225	1.0100e-003	2.9900e-003	19.7382
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	1.3600e-003	1.1000e-003	0.0144	4.0000e-005	4.4400e-003	3.0000e-005	4.4700e-003	1.1800e-003	2.0000e-005	1.2000e-003	0.0000	3.6160	3.6160	1.0000e-004	1.0000e-004	3.6473
Total	**2.6600e-003**	**0.0525**	**0.0261**	**2.3000e-004**	**9.8200e-003**	**4.4000e-004**	**0.0103**	**2.6600e-003**	**4.1000e-004**	**3.0700e-003**	**0.0000**	**22.4384**	**22.4384**	**1.1100e-003**	**3.0900e-003**	**23.3855**

3.3 Grading - 2022

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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1228	1.3097	0.9799	2.1000e-003		0.0551	0.0551		0.0507	0.0507	0.0000	183.7388	183.7388	0.0592	0.0000	185.2186
Total	**0.1228**	**1.3097**	**0.9799**	**2.1000e-003**	**0.1381**	**0.0551**	**0.1932**	**0.0548**	**0.0507**	**0.1055**	**0.0000**	**183.7388**	**183.7388**	**0.0592**	**0.0000**	**185.2186**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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	2.5900e-003	2.0900e-003	0.0273	7.0000e-005	8.4500e-003	5.0000e-005	8.5000e-003	2.2500e-003	5.0000e-005	2.2900e-003	0.0000	6.8793	6.8793	1.9000e-004	1.8000e-004	6.9389
Total	**2.5900e-003**	**2.0900e-003**	**0.0273**	**7.0000e-005**	**8.4500e-003**	**5.0000e-005**	**8.5000e-003**	**2.2500e-003**	**5.0000e-005**	**2.2900e-003**	**0.0000**	**6.8793**	**6.8793**	**1.9000e-004**	**1.8000e-004**	**6.9389**

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					0.0621	0.0000	0.0621	0.0247	0.0000	0.0247	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1228	1.3097	0.9799	2.1000e-003		0.0551	0.0551		0.0507	0.0507	0.0000	183.7385	183.7385	0.0592	0.0000	185.2184
Total	**0.1228**	**1.3097**	**0.9799**	**2.1000e-003**	**0.0621**	**0.0551**	**0.1172**	**0.0247**	**0.0507**	**0.0754**	**0.0000**	**183.7385**	**183.7385**	**0.0592**	**0.0000**	**185.2184**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

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	2.5900e-003	2.0900e-003	0.0273	7.0000e-005	8.4500e-003	5.0000e-005	8.5000e-003	2.2500e-003	5.0000e-005	2.2900e-003	0.0000	6.8793	6.8793	1.9000e-004	1.8000e-004	6.9389
Total	**2.5900e-003**	**2.0900e-003**	**0.0273**	**7.0000e-005**	**8.4500e-003**	**5.0000e-005**	**8.5000e-003**	**2.2500e-003**	**5.0000e-005**	**2.2900e-003**	**0.0000**	**6.8793**	**6.8793**	**1.9000e-004**	**1.8000e-004**	**6.9389**

3.4 Building Construction - 2022

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	0.0717	0.7161	0.5685	1.1800e-003		0.0329	0.0329		0.0313	0.0313	0.0000	101.4762	101.4762	0.0202	0.0000	101.9821
Total	**0.0717**	**0.7161**	**0.5685**	**1.1800e-003**		**0.0329**	**0.0329**		**0.0313**	**0.0313**	**0.0000**	**101.4762**	**101.4762**	**0.0202**	**0.0000**	**101.9821**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	3.2000e-003	0.0865	0.0287	3.4000e-004	0.0112	8.6000e-004	0.0120	3.2200e-003	8.3000e-004	4.0500e-003	0.0000	33.0503	33.0503	1.1100e-003	4.8000e-003	34.5071
Worker	0.0270	0.0218	0.2855	7.8000e-004	0.0883	5.4000e-004	0.0888	0.0235	4.9000e-004	0.0239	0.0000	71.8418	71.8418	1.9800e-003	1.9300e-003	72.4649
Total	**0.0302**	**0.1083**	**0.3142**	**1.1200e-003**	**0.0995**	**1.4000e-003**	**0.1009**	**0.0267**	**1.3200e-003**	**0.0280**	**0.0000**	**104.8921**	**104.8921**	**3.0900e-003**	**6.7300e-003**	**106.9720**

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	0.0717	0.7161	0.5685	1.1800e-003		0.0329	0.0329		0.0313	0.0313	0.0000	101.4761	101.4761	0.0202	0.0000	101.9820
Total	**0.0717**	**0.7161**	**0.5685**	**1.1800e-003**		**0.0329**	**0.0329**		**0.0313**	**0.0313**	**0.0000**	**101.4761**	**101.4761**	**0.0202**	**0.0000**	**101.9820**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

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	3.2000e-003	0.0865	0.0287	3.4000e-004	0.0112	8.6000e-004	0.0120	3.2200e-003	8.3000e-004	4.0500e-003	0.0000	33.0503	33.0503	1.1100e-003	4.8000e-003	34.5071
Worker	0.0270	0.0218	0.2855	7.8000e-004	0.0883	5.4000e-004	0.0888	0.0235	4.9000e-004	0.0239	0.0000	71.8418	71.8418	1.9800e-003	1.9300e-003	72.4649
Total	**0.0302**	**0.1083**	**0.3142**	**1.1200e-003**	**0.0995**	**1.4000e-003**	**0.1009**	**0.0267**	**1.3200e-003**	**0.0280**	**0.0000**	**104.8921**	**104.8921**	**3.0900e-003**	**6.7300e-003**	**106.9720**

3.4 Building Construction - 2023

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	0.2250	2.2046	1.9039	3.9800e-003		0.0982	0.0982		0.0933	0.0933	0.0000	342.5959	342.5959	0.0677	0.0000	344.2876
Total	**0.2250**	**2.2046**	**1.9039**	**3.9800e-003**		**0.0982**	**0.0982**		**0.0933**	**0.0933**	**0.0000**	**342.5959**	**342.5959**	**0.0677**	**0.0000**	**344.2876**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	6.4600e-003	0.2278	0.0867	1.0900e-003	0.0377	1.2700e-003	0.0390	0.0109	1.2100e-003	0.0121	0.0000	106.4270	106.4270	3.5700e-003	0.0154	111.1115
Worker	0.0847	0.0652	0.8890	2.5400e-003	0.2981	1.7100e-003	0.2998	0.0792	1.5700e-003	0.0807	0.0000	236.2022	236.2022	6.0000e-003	6.0000e-003	238.1408
Total	**0.0912**	**0.2930**	**0.9757**	**3.6300e-003**	**0.3358**	**2.9800e-003**	**0.3388**	**0.0901**	**2.7800e-003**	**0.0928**	**0.0000**	**342.6292**	**342.6292**	**9.5700e-003**	**0.0214**	**349.2523**

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	0.2250	2.2046	1.9039	3.9800e-003		0.0982	0.0982		0.0933	0.0933	0.0000	342.5955	342.5955	0.0677	0.0000	344.2872
Total	**0.2250**	**2.2046**	**1.9039**	**3.9800e-003**		**0.0982**	**0.0982**		**0.0933**	**0.0933**	**0.0000**	**342.5955**	**342.5955**	**0.0677**	**0.0000**	**344.2872**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	6.4600e-003	0.2278	0.0867	1.0900e-003	0.0377	1.2700e-003	0.0390	0.0109	1.2100e-003	0.0121	0.0000	106.4270	106.4270	3.5700e-003	0.0154	111.1115
Worker	0.0847	0.0652	0.8890	2.5400e-003	0.2981	1.7100e-003	0.2998	0.0792	1.5700e-003	0.0807	0.0000	236.2022	236.2022	6.0000e-003	6.0000e-003	238.1408
Total	**0.0912**	**0.2930**	**0.9757**	**3.6300e-003**	**0.3358**	**2.9800e-003**	**0.3388**	**0.0901**	**2.7800e-003**	**0.0928**	**0.0000**	**342.6292**	**342.6292**	**9.5700e-003**	**0.0214**	**349.2523**

3.4 Building Construction - 2024

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	0.1585	1.5303	1.4239	3.0000e-003		0.0654	0.0654		0.0622	0.0622	0.0000	258.2328	258.2328	0.0507	0.0000	259.5005
Total	**0.1585**	**1.5303**	**1.4239**	**3.0000e-003**		**0.0654**	**0.0654**		**0.0622**	**0.0622**	**0.0000**	**258.2328**	**258.2328**	**0.0507**	**0.0000**	**259.5005**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	4.7500e-003	0.1725	0.0643	8.1000e-004	0.0284	9.6000e-004	0.0294	8.2000e-003	9.2000e-004	9.1200e-003	0.0000	79.0764	79.0764	2.6900e-003	0.0115	82.5628
Worker	0.0597	0.0439	0.6254	1.8600e-003	0.2247	1.2400e-003	0.2260	0.0597	1.1400e-003	0.0608	0.0000	174.2341	174.2341	4.1000e-003	4.2100e-003	175.5912
Total	**0.0645**	**0.2164**	**0.6897**	**2.6700e-003**	**0.2531**	**2.2000e-003**	**0.2553**	**0.0679**	**2.0600e-003**	**0.0699**	**0.0000**	**253.3105**	**253.3105**	**6.7900e-003**	**0.0157**	**258.1540**

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	0.1585	1.5303	1.4239	3.0000e-003		0.0654	0.0654		0.0622	0.0622	0.0000	258.2324	258.2324	0.0507	0.0000	259.5001
Total	**0.1585**	**1.5303**	**1.4239**	**3.0000e-003**		**0.0654**	**0.0654**		**0.0622**	**0.0622**	**0.0000**	**258.2324**	**258.2324**	**0.0507**	**0.0000**	**259.5001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	4.7500e-003	0.1725	0.0643	8.1000e-004	0.0284	9.6000e-004	0.0294	8.2000e-003	9.2000e-004	9.1200e-003	0.0000	79.0764	79.0764	2.6900e-003	0.0115	82.5628
Worker	0.0597	0.0439	0.6254	1.8600e-003	0.2247	1.2400e-003	0.2260	0.0597	1.1400e-003	0.0608	0.0000	174.2341	174.2341	4.1000e-003	4.2100e-003	175.5912
Total	**0.0645**	**0.2164**	**0.6897**	**2.6700e-003**	**0.2531**	**2.2000e-003**	**0.2553**	**0.0679**	**2.0600e-003**	**0.0699**	**0.0000**	**253.3105**	**253.3105**	**6.7900e-003**	**0.0157**	**258.1540**

3.5 Paving - 2022

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	0.0183	0.1820	0.2367	3.7000e-004		9.2400e-003	9.2400e-003		8.5200e-003	8.5200e-003	0.0000	32.5446	32.5446	0.0104	0.0000	32.8050
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0183**	**0.1820**	**0.2367**	**3.7000e-004**		**9.2400e-003**	**9.2400e-003**		**8.5200e-003**	**8.5200e-003**	**0.0000**	**32.5446**	**32.5446**	**0.0104**	**0.0000**	**32.8050**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	9.7000e-004	7.8000e-004	0.0102	3.0000e-005	3.1600e-003	2.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.5714	2.5714	7.0000e-005	7.0000e-005	2.5937
Total	**9.7000e-004**	**7.8000e-004**	**0.0102**	**3.0000e-005**	**3.1600e-003**	**2.0000e-005**	**3.1800e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.5714**	**2.5714**	**7.0000e-005**	**7.0000e-005**	**2.5937**

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	0.0183	0.1820	0.2367	3.7000e-004		9.2400e-003	9.2400e-003		8.5200e-003	8.5200e-003	0.0000	32.5445	32.5445	0.0104	0.0000	32.8049
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0183**	**0.1820**	**0.2367**	**3.7000e-004**		**9.2400e-003**	**9.2400e-003**		**8.5200e-003**	**8.5200e-003**	**0.0000**	**32.5445**	**32.5445**	**0.0104**	**0.0000**	**32.8049**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

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	9.7000e-004	7.8000e-004	0.0102	3.0000e-005	3.1600e-003	2.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.5714	2.5714	7.0000e-005	7.0000e-005	2.5937
Total	**9.7000e-004**	**7.8000e-004**	**0.0102**	**3.0000e-005**	**3.1600e-003**	**2.0000e-005**	**3.1800e-003**	**8.4000e-004**	**2.0000e-005**	**8.6000e-004**	**0.0000**	**2.5714**	**2.5714**	**7.0000e-005**	**7.0000e-005**	**2.5937**

3.6 Architectural Coating - 2023

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	6.4224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.1270	0.1766	2.9000e-004		6.9000e-003	6.9000e-003		6.9000e-003	6.9000e-003	0.0000	24.8942	24.8942	1.4900e-003	0.0000	24.9315
Total	**6.4411**	**0.1270**	**0.1766**	**2.9000e-004**		**6.9000e-003**	**6.9000e-003**		**6.9000e-003**	**6.9000e-003**	**0.0000**	**24.8942**	**24.8942**	**1.4900e-003**	**0.0000**	**24.9315**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	0.0128	9.8200e-003	0.1340	3.8000e-004	0.0449	2.6000e-004	0.0452	0.0119	2.4000e-004	0.0122	0.0000	35.5999	35.5999	9.0000e-004	9.0000e-004	35.8920
Total	**0.0128**	**9.8200e-003**	**0.1340**	**3.8000e-004**	**0.0449**	**2.6000e-004**	**0.0452**	**0.0119**	**2.4000e-004**	**0.0122**	**0.0000**	**35.5999**	**35.5999**	**9.0000e-004**	**9.0000e-004**	**35.8920**

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	6.4224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.1270	0.1766	2.9000e-004		6.9000e-003	6.9000e-003		6.9000e-003	6.9000e-003	0.0000	24.8942	24.8942	1.4900e-003	0.0000	24.9314
Total	**6.4411**	**0.1270**	**0.1766**	**2.9000e-004**		**6.9000e-003**	**6.9000e-003**		**6.9000e-003**	**6.9000e-003**	**0.0000**	**24.8942**	**24.8942**	**1.4900e-003**	**0.0000**	**24.9314**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	0.0128	9.8200e-003	0.1340	3.8000e-004	0.0449	2.6000e-004	0.0452	0.0119	2.4000e-004	0.0122	0.0000	35.5999	35.5999	9.0000e-004	9.0000e-004	35.8920
Total	**0.0128**	**9.8200e-003**	**0.1340**	**3.8000e-004**	**0.0449**	**2.6000e-004**	**0.0452**	**0.0119**	**2.4000e-004**	**0.0122**	**0.0000**	**35.5999**	**35.5999**	**9.0000e-004**	**9.0000e-004**	**35.8920**

3.6 Architectural Coating - 2024

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	6.0931					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1127	0.1674	2.7000e-004		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	23.6176	23.6176	1.3300e-003	0.0000	23.6508
Total	**6.1098**	**0.1127**	**0.1674**	**2.7000e-004**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**23.6176**	**23.6176**	**1.3300e-003**	**0.0000**	**23.6508**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	0.0113	8.3200e-003	0.1186	3.5000e-004	0.0426	2.3000e-004	0.0429	0.0113	2.2000e-004	0.0115	0.0000	33.0485	33.0485	7.8000e-004	8.0000e-004	33.3059
Total	**0.0113**	**8.3200e-003**	**0.1186**	**3.5000e-004**	**0.0426**	**2.3000e-004**	**0.0429**	**0.0113**	**2.2000e-004**	**0.0115**	**0.0000**	**33.0485**	**33.0485**	**7.8000e-004**	**8.0000e-004**	**33.3059**

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	6.0931					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1127	0.1674	2.7000e-004		5.6300e-003	5.6300e-003		5.6300e-003	5.6300e-003	0.0000	23.6176	23.6176	1.3300e-003	0.0000	23.6508
Total	**6.1098**	**0.1127**	**0.1674**	**2.7000e-004**		**5.6300e-003**	**5.6300e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**23.6176**	**23.6176**	**1.3300e-003**	**0.0000**	**23.6508**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

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	0.0113	8.3200e-003	0.1186	3.5000e-004	0.0426	2.3000e-004	0.0429	0.0113	2.2000e-004	0.0115	0.0000	33.0485	33.0485	7.8000e-004	8.0000e-004	33.3059
Total	**0.0113**	**8.3200e-003**	**0.1186**	**3.5000e-004**	**0.0426**	**2.3000e-004**	**0.0429**	**0.0113**	**2.2000e-004**	**0.0115**	**0.0000**	**33.0485**	**33.0485**	**7.8000e-004**	**8.0000e-004**	**33.3059**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.4943	0.5773	4.9107	0.0108	1.1446	7.9600e-003	1.1526	0.3055	7.4000e-003	0.3129	0.0000	1,011.2616	1,011.2616	0.0667	0.0454	1,026.4534
Unmitigated	0.5401	0.6609	5.6386	0.0127	1.3571	9.2900e-003	1.3664	0.3622	8.6400e-003	0.3708	0.0000	1,194.1886	1,194.1886	0.0753	0.0519	1,211.5499

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,109.76	1,001.64	834.36	3,604,998	3,040,531
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	1,109.76	1,001.64	834.36	3,604,998	3,040,531

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721
Parking Lot	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unenclosed Parking Structure	0.542450	0.061470	0.185138	0.129299	0.023799	0.006448	0.011958	0.009209	0.000810	0.000503	0.024446	0.000751	0.003721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	29.3983	29.3983	2.4800e-003	3.0000e-004	29.5500
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	172.6728	172.6728	0.0146	1.7700e-003	173.5636
NaturalGas Mitigated	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.5674	156.5674	3.0000e-003	2.8700e-003	157.4978
NaturalGas Unmitigated	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.5674	156.5674	3.0000e-003	2.8700e-003	157.4978

Rialto Apartments GHG Analysis - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	2.93396e+006	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.5674	156.5674	3.0000e-003	2.8700e-003	157.4978
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
Unenclosed Parking Structure	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		**0.0158**	**0.1352**	**0.0575**	**8.6000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**156.5674**	**156.5674**	**3.0000e-003**	**2.8700e-003**	**157.4978**

Rialto Apartments GHG Analysis - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	2.93396e+006	0.0158	0.1352	0.0575	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.5674	156.5674	3.0000e-003	2.8700e-003	157.4978
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
Unenclosed Parking Structure	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		**0.0158**	**0.1352**	**0.0575**	**8.6000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**156.5674**	**156.5674**	**3.0000e-003**	**2.8700e-003**	**157.4978**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	807842	143.2745	0.0121	1.4700e-003	144.0136
Parking Lot	22960	4.0721	3.4000e-004	4.0000e-005	4.0931
Unenclosed Parking Structure	142800	25.3262	2.1400e-003	2.6000e-004	25.4569
Total		**172.6728**	**0.0146**	**1.7700e-003**	**173.5636**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	538561	95.5164	8.0600e-003	9.8000e-004	96.0091
Parking Lot	-246321	-43.6861	-0.0037	-0.0005	-43.9115
Unenclosed Parking Structure	-126481	-22.4319	-0.0019	-0.0002	-22.5477
Total		**29.3983**	**2.4800e-003**	**3.0000e-004**	**29.5500**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.8807	0.0623	2.1238	3.5000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	47.5348	47.5348	4.1700e-003	8.1000e-004	47.8798
Unmitigated	0.8807	0.0623	2.1238	3.5000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	47.5348	47.5348	4.1700e-003	8.1000e-004	47.8798

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	0.0659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.4600e-003	0.0381	0.0162	2.4000e-004		3.0800e-003	3.0800e-003		3.0800e-003	3.0800e-003	0.0000	44.0892	44.0892	8.5000e-004	8.1000e-004	44.3512
Landscaping	0.0637	0.0243	2.1076	1.1000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	3.4456	3.4456	3.3200e-003	0.0000	3.5287
Total	**0.8807**	**0.0623**	**2.1238**	**3.5000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**47.5348**	**47.5348**	**4.1700e-003**	**8.1000e-004**	**47.8798**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0659					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.4600e-003	0.0381	0.0162	2.4000e-004		3.0800e-003	3.0800e-003		3.0800e-003	3.0800e-003	0.0000	44.0892	44.0892	8.5000e-004	8.1000e-004	44.3512
Landscaping	0.0637	0.0243	2.1076	1.1000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	3.4456	3.4456	3.3200e-003	0.0000	3.5287
Total	**0.8807**	**0.0623**	**2.1238**	**3.5000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**47.5348**	**47.5348**	**4.1700e-003**	**8.1000e-004**	**47.8798**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.4397	0.3500	8.6000e-003	55.7515
Unmitigated	51.4219	0.4371	0.0107	65.5404

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.2914 / 8.37937	51.4219	0.4371	0.0107	65.5404
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**51.4219**	**0.4371**	**0.0107**	**65.5404**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.6331 / 8.37937	44.4397	0.3500	8.6000e-003	55.7515
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**44.4397**	**0.3500**	**8.6000e-003**	**55.7515**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Rialto Apartments GHG Analysis - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.0487	1.1257	0.0000	47.1923
Unmitigated	19.0487	1.1257	0.0000	47.1923

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	93.84	19.0487	1.1257	0.0000	47.1923
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**19.0487**	**1.1257**	**0.0000**	**47.1923**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	93.84	19.0487	1.1257	0.0000	47.1923
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**19.0487**	**1.1257**	**0.0000**	**47.1923**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

Appendix C

Cultural Resources

Rincon Consultants, Inc.

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September 28, 2021
Project No: 21-11403

Tim Nguyen
Acquisitions and Development
Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764
Email: TNguyen@frontier-enterprises.com

Subject: **Cultural Resources Letter Report for the 534 Foothill Boulevard Residential Project, City of Rialto, San Bernardino County, California**

Dear Mr. Nguyen:

Rincon Consultants, Inc. (Rincon) was retained by Frontier Enterprises to complete a cultural resources study for the 534 Foothill Boulevard Residential Project (project) located in the city of Rialto, San Bernardino County, California. The purpose of this letter report is to document the results of the tasks performed by Rincon, specifically, a cultural resources records search, archival research, a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), a pedestrian field survey of the project site, and preparation of this report. An Initial Study – Mitigated Negative Declaration (IS-MND) is also being prepared for the project. This study was completed in accordance with the requirements of the California Environmental Quality Act (CEQA) with the City of Rialto (City) acting as the lead agency.

Project Location and Description

The project site consists of an approximately 8.3-acre parcel (Assessor Parcel Numbers 013-317-131, 013-317-107, 013-317-108, 013-317-109) located at 534 Foothill Boulevard in the city of Rialto, San Bernardino County, California. The parcel is currently vacant and bounded by empty space and residential development to the north, commercial development and Route 66 to the south, and commercial and residential development to the east and west (Attachment A: Figure 1). The project site is depicted in Township 1 South, Range 5 West, Section 1 of the United States Geological Survey (USGS) *San Bernardino South, CA* 7.5-minute quadrangle (Attachment A: Figure 2).

The project proposes the development of 204 multi-family residential units comprising seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 722 square feet (sf) and 1,132 sf. The proposed residential units would be configured in four buildings that contain 24 units and three buildings that contain 36 units. Two 24-unit buildings would be fronting E. Foothill Boulevard, and the rest would be distributed throughout the site with surface parking along the western, northern and eastern perimeters of the project site and around the outside perimeter of building clusters.

Building materials would include stucco for most of the building façade, accented with wood and stucco trim, brick, wrought iron, and corbel. Proposed roofing materials would consist of concrete tile to complement the existing adjacent uses.

Vehicle access to the project site would be provided via two driveways located along East Foothill Boulevard along the southern boundary of the project site, and one emergency vehicle access driveway located along North Acacia Avenue in the northwest corner of the project site. Proposed residences and parking spaces would be accessed through private vehicle circulation drive aisles on-site. A total of 367 parking spaces would be available for the 204 units. Residential parking spaces would be provided in the form of covered carports or uncovered spaces.

Environmental Setting

The project site is situated at an elevation that ranges from approximately 1,233 to 1,242 feet (376 to 379 meters) above mean sea level. The nearest water source is the Santa Ana River, located approximately 4.3 miles (6.9 kilometers) to the southeast. Soils within the project site include a Hanford sandy loam-Tujunga loamy sand complex that consists of very deep, well drained to somewhat excessively drained soils that formed in alluvium from granitic rock sources (California Soils Resource Lab 2021). Vegetation within the project site consists of seasonal grasses and shrubs.

California Historical Resources Information System

The South Central Coastal Information Center (SCCIC) located at California State University, Fullerton, completed an in-house search of the California Historical Resources Information System on September 16, 2021. The purpose of the records search was to identify previously conducted cultural resources studies, as well as previously recorded cultural resources within the project site and a 0.5-mile radius. Rincon also conducted a review of the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), the California Historical Landmarks list, California Points of Historical Interest list, the Archaeological Determinations of Eligibility list, and the California Built Environment Resources Directory (BERD). Results from the records search can be found in Attachment B of this letter report.

Previous Studies

The SCCIC records search identified four previously conducted cultural resources studies within a 0.5-mile radius of the project site. None of the studies were located within the project site. Table 1 lists the previous studies identified within the records search radius.

Table 1 Previous Cultural Resources Studies Within 0.5-Mile of the Project Site

Report Number	Author(s)	Year	Title	Relationship to Project Site
SB-04358	Brechbiel, Brant	1998	*Cultural Resources Records Search and Literature Review for a Pacific Bell Mobile Services Telecommunications Facility: CM 188-11 in the City of San Bernardino, California*	Outside

Report Number	Author(s)	Year	Title	Relationship to Project Site
SB-04636	Bonner, Wayne H.	2005	*Cultural Resources Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate CM-188-01 (ES-014-01) Nicholson Park, 2750 West 2nd Street, San Bernardino, San Bernardino County, California*	Outside
SB-06994	Sanka, Jennifer	2011	*Cultural Resources Assessment: San Bernardino Redevelopment Project Area Merger – Area B Project, City of San Bernardino, San Bernardino County, California*	Outside
SB-07959	Hatheway, Roger G.	1998	*Determination of Eligibility for 50 Buildings in the City of San Bernardino*	Outside

Source: South Central Coastal Information Center 2021

Previously Recorded Cultural Resources

The SCCIC records search identified 16 previously recorded historic-period cultural resources within the 0.5-mile radius of the project site (Table 2). No cultural resources were identified on the project site. Due to the current circumstances surrounding COVID-19, the SCCIC is only providing record search data that is already digitized; therefore, limited information was provided for 15 of the identified resources. The majority of the information contained in Table 2 below is summarized from the BERD.

Table 2 Previously Recorded Cultural Resources Within 0.5-Mile of the Project Site

Primary Number	Resource Type	Description	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-36-017538	Historic-Period Building	508 E. Etiwanda Avenue; constructed in 1911	Needs to be reevaluated (Formerly NR SC4) – may become eligible for NRHP with restoration or when meets other specific conditions (California Historical Resource Status Code 7N1)	Outside
P-36-017539	Historic-Period Building	136 E. Foothill Boulevard; constructed in 1911	Needs to be reevaluated (Formerly NR SC4) – may become eligible for NRHP with restoration or when meets other specific conditions (California Historical Resource Status Code 7N1)	Outside
P-36-017542	Historic-Period Building	128 E. 3rd Street	Insufficient Information	Outside
P-36-017543	Historic-Period Building	730 N. Acacia Avenue; constructed 1923	Individual property that is eligible for local listing or	Outside

Primary Number	Resource Type	Description	NRHP/CRHR Eligibility Status	Relationship to Project Site
			designation (California Historical Resource Status Code 5S2)	
P-36-017544	Historic-Period Building	760 N. Acacia Avenue; constructed 1913	Needs to be reevaluated (Formerly NR SC4) – may become eligible for NRHP with restoration or when meets other specific conditions (California Historical Resource Status Code 7N1)	Outside
P-36-017555	Historic-Period Building	300 N. Date Avenue; Adair Home constructed in 1905	Appears eligible for NRHP both individually and as a contributor to a NRHP eligible district through survey evaluation (California Historical Resource Status Code 3B)	Outside
P-36-017556	Historic-Period Building	340 N. Date Avenue; Virgil Cox House constructed in 1910	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017557	Historic-Period Building	348 N. Date Avenue; constructed in 1925	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017558	Historic-Period Building	358 N. Date Avenue; constructed in 1926	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017562	Historic-Period Building	350 N. Magnolia Avenue; constructed in 1930	Determined ineligible for local listing or designation through local government	Outside

Primary Number	Resource Type	Description	NRHP/CRHR Eligibility Status	Relationship to Project Site
			review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	
P-36-017582	Historic-Period Building	320 N. Olive Avenue; Van Vliet House constructed in 1928	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017583	Historic-Period Building	331 N. Olive Avenue; Joe Perrich House constructed in 1931	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017584	Historic-Period Building	336 N. Olive Avenue; Lounsbury House constructed 1923	Individual property that is eligible for local listing or designation (California Historical Resource Status Code 5S2)	Outside
P-36-017585	Historic-Period Building	344 N. Olive Avenue; McDonald/ Milligan House constructed in 1923	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside
P-36-017586	Historic-Period Building	350 N. Olive Avenue; Crowder House constructed in 1927	Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning (California Historical Resource Status Code 6L)	Outside

Primary Number	Resource Type	Description	NRHP/CRHR Eligibility Status	Relationship to Project Site
P-36-025613*	Historic-Period Site/Structure	Wigwam Village #7 located at 2728 Foothill Boulevard	Listed on the NRHP (Property ID 11000957)	Outside

Source: South Central Coastal Information Center 2021

* = scanned and verified by the South Central Coastal Information Center

Review of Historical Topographic Maps and Aerial Imagery

Rincon also reviewed available historical topographic maps and aerial imagery of the project site to determine past land uses. A historical topographic map from 1896 shows the project site as undeveloped, with roadway and building development observed within the same block and surrounding area (USGS 2021a). By 1938, the project site was utilized as an orchard and one extant structure is observed in the southwestern corner (USGS 2021b-c, NETR 2021). Aerial imagery from 1948 indicates the structure in the southwestern corner had been demolished. That same year six structures, five of which are oriented in a north to south line with the additional structure situated adjacent to the east, are present in the southeastern corner and a small portion of land has been cleared around them (NETR 2021). As indicated by topographic maps spanning from 1954 to 1975 and aerial imagery from 1959 to 1980, the project site was no longer utilized for agricultural purposes and the lot had been cleared and graded with structures visible along the project site's southern boundary (USGS 2021d-f, NETR 2021). The surrounding vicinity begins to transition to a developed residential setting as early as 1959 (NETR 2021). Aerials from 2014 show all structures on the project site had been demolished (NETR 2021). The parcel appears as a graded vacant lot with two modern extant structures within the southeastern corner in 2018 (NETR 2021).

Native American Heritage Commission

Rincon contacted the NAHC on July 16, 2021, to request a search of the SLF and an Assembly Bill 52 (AB 52) specific contact list of Native Americans culturally affiliated with the project area. A response was received from the NAHC on August 3, 2021, stating the SLF search had been completed with "negative" results. AB 52 consultation is being performed between the City and California Native American tribes who have requested notification of projects in their traditional area. Attachment C provides the results of the SLF search.

Field Survey

On September 20, 2021, Rincon archaeologist Debbie Balam, BA, conducted an archaeological pedestrian field survey of the project site. Transect intervals were spaced approximately 10 meters apart and oriented generally from north to south. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and historic-period debris (e.g., metal, glass, ceramics). Subsurface soils around burrows were also visually inspected. Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the project site. Site characteristics and survey conditions were documented using field records and a digital

camera. Copies of the survey notes and digital photographs are maintained at the Rincon Los Angeles office.

Survey Results

Overall ground visibility within the project site was considered poor (approximately 30 percent) (Attachment A: Figure 3 and Figure 4). Exposed soil was a light brown fine-grained silt mixed with gravel that supported seasonal grasses and shrubs. The soil around the periphery of the project site was approximately two to three feet lower than the property itself, and the light brown fine-grained silt mixed with gravel observed through the project site is not consistent with the sandy loam-loam sand soil described by the California Soils Resource Lab (2021). The presence of what appears to be non-native soils along with the presence of dumped spoils piles suggests fill soil has been imported to the project site (Attachment A: Figure 5). Previous ground disturbance, evidenced by grading, associated spoil piles, and temporary access roads, was observed during the survey (Attachment A: Figure 6 and Figure 7). Extensive modern refuse in the form of paper, plastic, glass, concrete, clothing, and cardboard was scattered throughout the project site (Attachment A: Figure 8).

The field survey did not identify any cultural resources in the project site.

Findings and Recommendations

The results of the SCCIC records search identified 16 historic-period cultural resources within 0.5 miles of the project site. None of the resources are located within the project site. The SLF search conducted by the NAHC returned negative results. A review of historical aerial photographs and topographic maps did not identify any built environment resources on the project site. The archaeological pedestrian field survey did not identify any prehistoric or historic-period cultural resources within the project site. Grading, construction of access roads, and an elevation difference between the project site and the surrounding properties were observed during the field survey, indicating previous ground disturbance within the project site. Aerial imagery confirms this finding and shows that the project site was utilized as an orchard as early as 1938 and that the lot had been cleared and graded by 1954. Seven buildings were once present within the southeastern portion of the project site; however, aerials from 2014 indicate that all historic-period structures previously known to exist have since been demolished. The lack of surface evidence of archaeological resources does not preclude their subsurface existence; however, the absence of prehistoric archaeological resources within 0.5-mile and historic-period archaeological resources within the immediate vicinity, coupled with the existing level of disturbance, suggest there is a low potential for encountering intact subsurface archaeological deposits within the project site.

Based on the results of this study, Rincon recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resource work is recommended for the current project. Rincon presents the following recommendation in case of the unanticipated discovery of cultural resources during project development. The project is also required to adhere to state health and safety codes regarding the unanticipated discovery of human remains, detailed below.

Unanticipated Discovery of Cultural Resources

In the unlikely event cultural resources are unexpectedly encountered during ground-disturbing activities, work in the immediate area should halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the NRHP or CRHR, additional work such as data recovery excavation and/or Native American consultation to treat the find may be warranted to mitigate any significant impacts to cultural resources.

Unanticipated Discovery of Human Remains

If human remains are unexpectedly encountered, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the unlikely event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

Please do not hesitate to contact Rincon Consultants with any questions regarding this cultural resources study.

Sincerely,
Rincon Consultants, Inc.

Mary Pfeiffer, BA
Archaeologist

Ken Victorino, MA, RPA
Senior Principal Investigator

Andrew Pulcheon, MA, RPA, AICP, CEP
Principal

Attachments

Attachment A: Figures

Attachment B: Record Search Results

Attachment C: Sacred Lands File Search

References

California Soil Resource Lab

2021 34.10811388888889, -117.35988888888889. Electronic document accessed July 15, 2021 from: https://casoilresource.lawr.ucdavis.edu/gmap/

National Park Service

1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document, accessed January 24, 2020 from: http://www.nps.gov/history/local-law-Arch_Standards.htm

Nationwide Environmental Title Research (NETR)

2021 534 Foothill Boulevard, Rialto, California. Electronic document accessed July 16, 2021 from: https://www.historicaerials.com/viewer

United States Geological Survey (USGS)

2021a 1896, San Bernardino, 1:62500 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=21774f8f69c6e1d76513993876d52d9c

2021b 1938, Colton, 1:31680 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=2f75b021b6d6594d958a0dc9e922683a

2021c 1942, San Bernardino, 1:62500 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=203d6011a8c5e072ac4799c5a08b6221

2021d 1954, San Bernardino, 1:62500 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=2083b5b624491d9c88c678f131085093

2021e 1967, South Bernardino South, 1:24000 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=37fdbb453bc719570a7adf15002775ef

2021f 1975, San Bernardino South, 1:24000 topographic map. Electronic document accessed July 16, 2021 from: https://ngmdb.usgs.gov/ht-bin/tv_browse.pl?id=714c3915a45bf78bd16f8c31bb685cd5

Attachment A

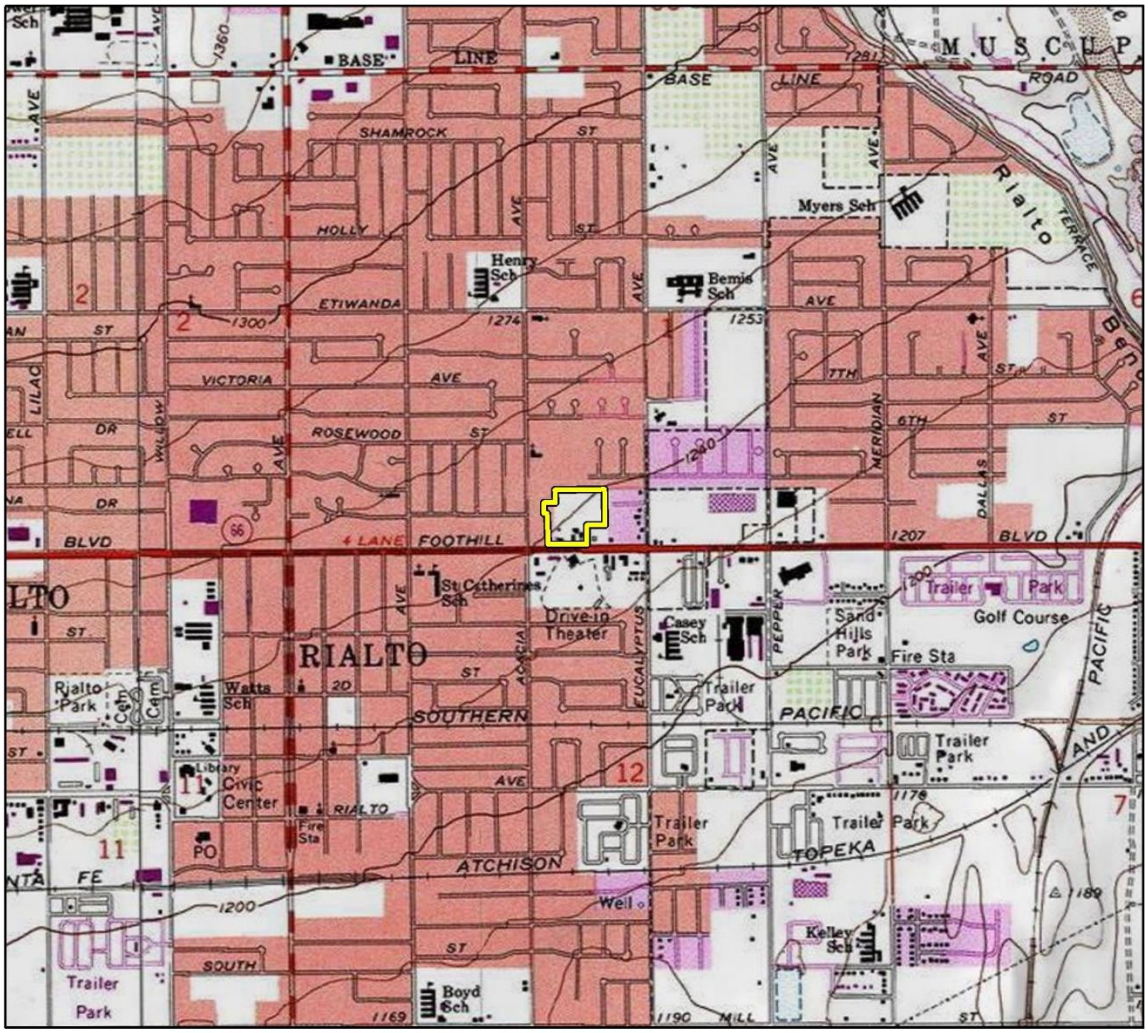
Figures

Figure 1 Aerial Location Map



Imagery provided by Microsoft Bing and its licensors © 2021.

Figure 2 Project Location Map



Basemap provided by National Geographic Society, Esri and their licensors © 2021. San Bernardino South Quadrangle. T01S R05W S01. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.

Project Location

0 1,000 2,000 Feet

N

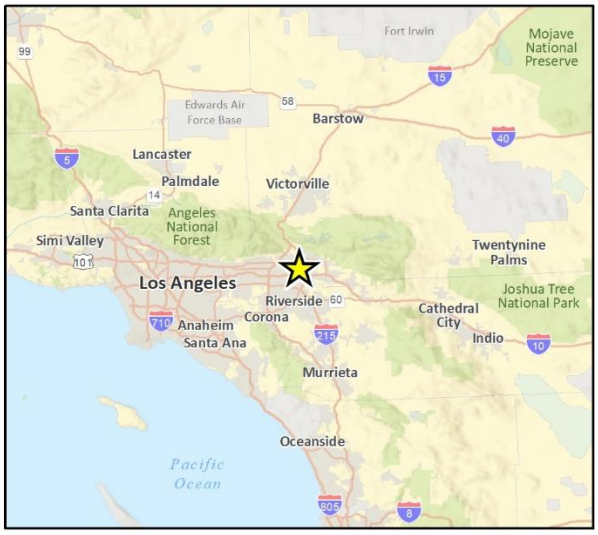


Figure 3 Ground Visibility Within Project Site, Facing Southwest



Figure 4 Ground Visibility Within Project Site, Facing Northwest



Figure 5 Elevation Difference Within Project Site, Facing Northwest



Figure 6 Previous Disturbances Within Project Site, Facing Northwest



Figure 7 Previous Disturbances Within Project Site, Facing Northwest



Figure 8 Modern Refuse Within Project Site, Facing Southeast



Attachment B

Records Search Results

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

9/16/2021 Records Search File No.: 22697.8880

Mary Pfeiffer
Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura, CA 93003

Re: Record Search Results for 534 Foothill Boulevard Residential Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the San Bernardino South, CA USGS 7.5' quadrangle(s). Due to the COVID-19 emergency, we have implemented new records search protocols, which limits the deliverables available to you at this time. **WE ARE ONLY PROVIDING DATA THAT IS ALREADY DIGITAL AT THIS TIME.** Please see the attached document on COVID-19 Emergency Protocols for what data is available and for future instructions on how to submit a records search request during the course of this crisis. If your selections on your data request form are in conflict with this document, we reserve the right to default to emergency protocols and provide you with what we stated on this document. You may receive more than you asked for or less than you wanted. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ shape files ☐ hand-drawn maps

Resources within project area: 0	None
Resources within ½-mile radius: 16	SEE ATTACHED MAP or LIST
Reports within project area: 0	None
Reports within ½-mile radius: 4	SEE ATTACHED MAP or LIST

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database (spreadsheet):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database (spreadsheet):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☐ enclosed	☒ not requested	☐ nothing listed

OHP Built Environment Resources Directory (BERD) 2019: ☒ available online; please go to https://ohp.parks.ca.gov/?page_id=30338
Archaeo Determinations of Eligibility 2012: ☐ enclosed ☐ not requested ☒ nothing listed
Historical Maps: ☒ not available at SCCIC; please go to https://ngmdb.usgs.gov/topoview/viewer/#4/39.98/-100.02
Ethnographic Information: ☒ not available at SCCIC
Historical Literature: ☒ not available at SCCIC
GLO and/or Rancho Plat Maps: ☒ not available at SCCIC
Caltrans Bridge Survey: ☒ not available at SCCIC; please go to http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Shipwreck Inventory: ☒ not available at SCCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) ☒ not available at SCCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Isabela Kott
Assistant Coordinator, GIS Program Specialist

Enclosures:

(X) Covid-19 Emergency Protocols for San Bernardino County Records Searches – 2 pages

(X) Custom Maps – 1 page

(X) Resource Database Printout (list) – 1 page

(X) Report Database Printout (list) – 1 page

(X) Resource Record Copies – (all – scanned only) 6 pages

Emergency Protocols for San Bernardino County Records Searches

These instructions are for qualified consultants with a valid Access and Use Agreement.

WE ARE ONLY PROVIDING DATA THAT IS ALREADY DIGITAL AT THIS TIME. WE ARE NOT PROVIDING SHAPEFILE DATA FOR SAN BERNARDINO COUNTY; YOU WILL ONLY RECEIVE A CUSTOM DIGITAL MAP.

We can only provide you information that is already in digital format; therefore, your record search may or may not be complete. Some records are only available in paper formats and so may not be available at this time. This also means that there may be data missing from the database bibliographies; locations of resource and report boundaries may be missing or mis-mapped on our digital maps; and that no pdf of a resource or report is available or may be incomplete.

As for the GIS mapped data, bibliographic databases, and pdfs of records and reports; not all the data in our digital archive for San Bernardino County was processed by SCCIC, therefore, we cannot vouch for its accuracy. Accuracy checking and back-filling of missing information is an on-going process under normal working conditions and cannot be conducted under the emergency protocols.

This is an extraordinary and unprecedented situation. Your options will be limited so that we can help as many of you as possible in the shortest amount of time. You may not get everything you want and/or you may get more than you want. We appreciate your patience and resilience.

Please send in your request via email using the data request form along with the associated shape files and pdf map of the project area. If you have multiple SBCO jobs for processing, you may not get them all back at the same time. Use this data request form:

http://web.sonoma.edu/nwic/docs/CHRISDataRequestForm.pdf

Please make your selections on the data request form based on the following instructions.

1. Keep your search radius as tight as possible, but we understand if you have a requirement. The wider the search radius, the higher the cost. You are welcome to request a Project area only search, but please make it clear on the request form that that is what you are seeking.

2. You will get custom maps of resource locations for the project area and the radius that you choose. We will only be providing maps of report locations for the project area and up to a ¼-mile radius. If you need bibliographic information for more than ¼-mile radius – you will be charged for all report map features within your selected search radius. You can opt out of having us create custom maps but you still pay for the map features in the project area or the selected search radius if you want the associated bibliographic information or pdfs of resources or reports.

3. You can request copies of site records and reports if they are digitally available.

4. You will also get the bibliographies (List, Details, Spreadsheet) that you choose for resources and reports. Because the bibliographic database is not yet complete, you will only get what is available at the time of your records search.
5. If you request more than what we are offering here, we may provide it if it is available or we reserve the right to default to these instructions. If you want copies of resources and reports that are not available digitally at the time of the search, you can send us a separate request for processing when we are allowed to return to the office. Fees will apply.

6. **You will need to search the OHP BERD yourself for your project area and your search radius.** This replaces the old OHP HPD. It is available online at the OHP website.

7. You can go online to find historic maps, so we are not providing them at this time.

8. Your packet will be sent to you electronically via Dropbox. We use 7-zip to password protect the files so you will need both on your computers. We email you the password. If you can't use Dropbox for some reason, then you will need to provide us with your Fed ex account number and we will ship you a disc with the results. As a last resort, we will ship on a disc via the USPS. You may be billed for our shipping and handling costs.

9. We will be billing you at the staff rate of $150 per hour and you will be charged for all resources and reports according to the "custom map charges", even if you don't get a custom or hand-drawn map. You will also be billed 0.15 per pdf page, as usual. Quad fees will apply if your research includes more than 2 quads. The fee structure for custom maps was designed to mimic the cost of doing the search by hand so the fees are comparable.

10. A copy of the digital fee structure is available on the Office of Historic Preservation website under the CHRIS tab. If the digital fee structure is new to you or you don't understand it; please ask questions before we process your request, not after. Thank you.

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SB-04358	NADB-R - 1064358	1998	BRECHBIEL, BRANT	CULTURAL RESOURCES RECORDS SEARCH & LITERATURE REVIEW FOR A PACIFIC BELL MOBILE SERVICES TELECOMMUNICATIONS FACILITY: CM 188-11 IN THE CITY OF SAN BERNARDINO, CA. 6PP	CHAMBERS GROUP, INC	
SB-04636	NADB-R - 1064636	2005	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate CM-188-01 (ES-014-01) Nicholson Park, 2750 West 2nd Street, San Bernardino, San Bernardino County, California.		
SB-06994	NADB-R - 1066994	2011	Sanka, Jennifer	Cultural Resources Assessment: San Bernardino Redevelopment Project Area Merger —Area B Project, City of San Bernardino, San Bernardino County, California.		
SB-07959		1998	Hatheway, Roger G.	Determination of Eligibility for 50 Buildings in the City of San Bernadino	Hatheway and Associates	

Resources highlighted in green have been previously verified by SCCIC staff.

Resources highlighted in orange have NOT been scanned and are unavailable at this time.

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-36-017538		508 E Etiwanda Ave, Rialto					
P-36-017539		136 E Foothill Blvd, Rialto					
P-36-017542		128 E 3rd St, Rialto					
P-36-017543		730 N Acacia Ave, Rialto					
P-36-017544		760 N Acacia Ave, Rialto					
P-36-017555		300 N Date Ave, Rialto					
P-36-017556		340 N Date Ave, Rialto; Virgil Cox House					
P-36-017557		348 N Date Ave, Rialto					
P-36-017558		358 N Date Ave, Rialto					
P-36-017562		350 N Magnolia Ave, Rialto					
P-36-017582		320 N Olive Ave, Rialto; Van Vliet House					
P-36-017583		331 N Olive Ave, Rialto; Joe Perrich House					
P-36-017584		336 N Olive Ave, Rialto; Lounsbury House					
P-36-017585		344 N Olive Ave, Rialto; McDonald/Milligan House					
P-36-017586		350 N Olive Ave, Rialto; Crowder House					
P-36-025613		Resource Name - Wigwam Village #7; National Register - 11-000957; Other - P1074-195	Structure, Site	Historic	AH15; HP05		

Attachment C

Sacred Lands File Search

Local Government Tribal Consultation List Request
Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52) – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18) - *Per Government Code § 65352.3.***

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment

___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: 534 Foothill Boulevard Residential Project

Local Government/Lead Agency: City of Rialto

Contact Person: Mary Pfeiffer

Street Address: 180 N. Ashwood Avenue

City: Ventura **Zip:** 93003

Phone: (805) 644-4455

Email: mpfeiffer@rinconconsultants.com

Specific Area Subject to Proposed Action

County/Community: San Bernardino County

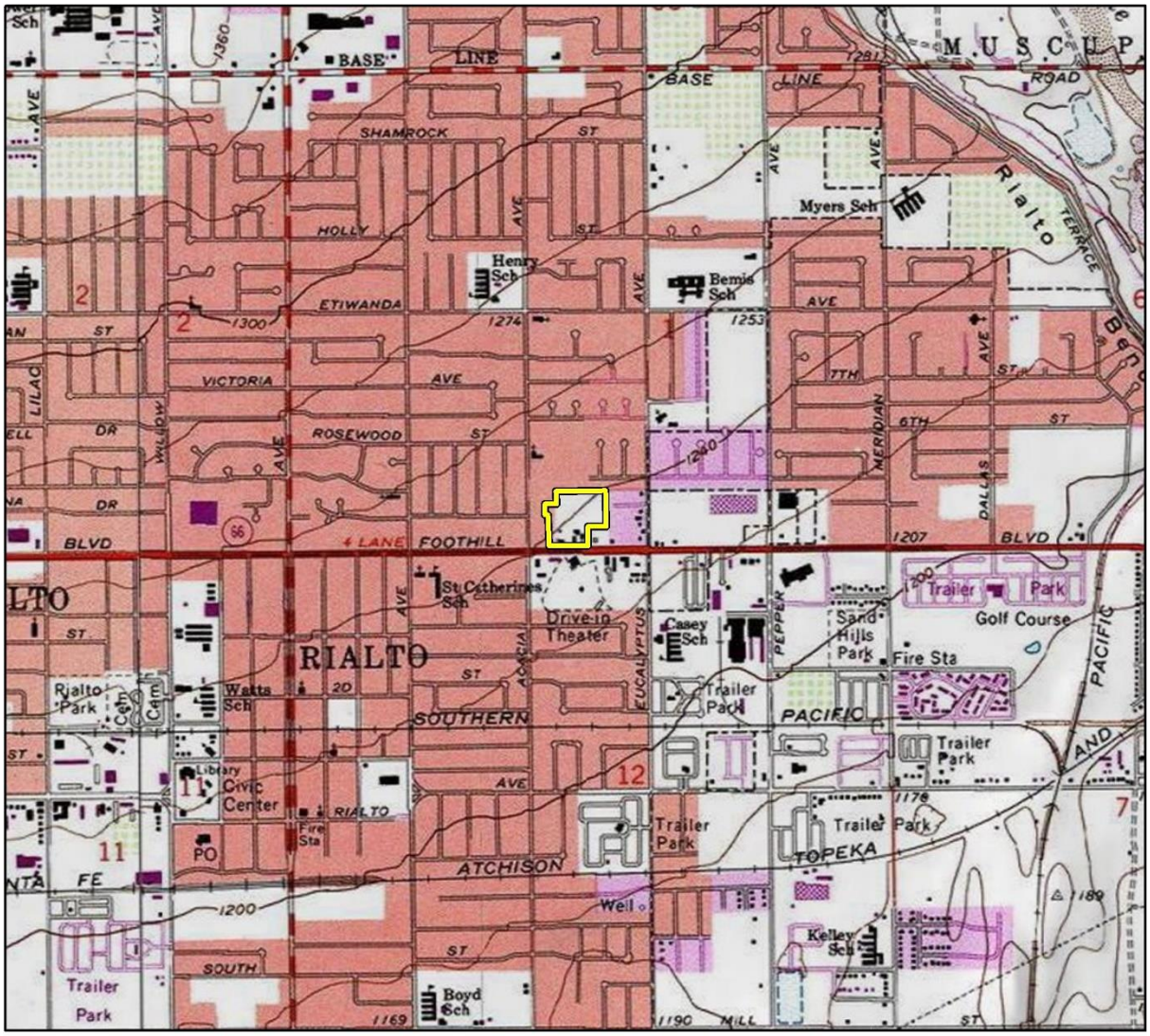
Project Description: The project is located at 534 Foothill Boulevard in the city of Rialto, San Bernardino County, California and involves the development of 198-bedroom complex, located on an approximately 8.3-acre site. An Initial Study – Mitigated Negative Declaration (IS-MND) is being prepared for the project. This project is subject to the California Environmental Quality Act and the City of Rialto is the lead agency.

Additional Request

■ **Sacred Lands File Search - *Required Information:***

USGS Quadrangle Name(s): San Bernardino South

Township: 01 South **Range:** 05 West **Section(s):** 1

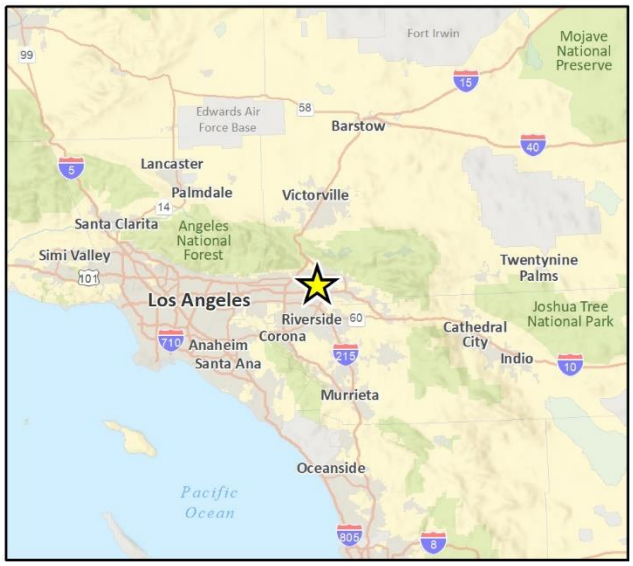


Basemap provided by National Geographic Society, Esri and their licensors © 2021. San Bernardino South Quadrangle. T01S R05W S01. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.

Project Location

0 1,000 2,000 Feet

N



CRFig 1 Proj Locn Map

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

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COMMISSIONER
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Paiute/White Mountain Apache

COMMISSIONER
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Chumash

COMMISSIONER
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COMMISSIONER
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Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 3, 2021

Mary Pfeiffer
Rincon Consultants, Inc.

Via Email to: mpfeiffer@rinconconsultants.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, 534 Foothill Boulevard Residential Project, San Bernardino County

Dear Ms. Pfeiffer:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
San Bernardino County
8/3/2021

Agua Caliente Band of Cahuilla Indians
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Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net
Cahuilla

Agua Caliente Band of Cahuilla Indians
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Fax: (760) 699-6919
Cahuilla

Gabrieleno Band of Mission Indians - Kizh Nation
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Gabrieleno

Gabrieleno/Tongva San Gabriel Band of Mission Indians
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Gabrielino

Gabrielino Tongva Indians of California Tribal Council
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Gabrielino

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Cahuilla
Serrano

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Cahuilla
Serrano

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed 534 Foothill Boulevard Residential Project, San Bernardino County.

Quechan Tribe of the Fort Yuma Reservation
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Phone: (760) 572 - 2423
historicpreservation@quechantribe.com
Quechan

San Manuel Band of Mission Indians
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Phone: (909) 864 - 8933
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Serrano

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Cahuilla

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Serrano

Serrano Nation of Mission Indians
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Serrano

Soboba Band of Luiseno Indians
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Cahuilla
Luiseno

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed 534 Foothill Boulevard Residential Project, San Bernardino County.

Appendix D

Geotechnical and Infiltration Evaluation

GEOTECHNICAL AND INFILTRATION EVALUATION
PROPOSED MULTI-FAMILY RESIDENTIAL DEVELOPMENT
APN NOS. 0133-171-07, -08, -09 AND -31
NORTH ACACIA AVENUE & EAST FOOTHILL BOULEVARD
RIALTO, SAN BERNARDINO COUNTY, CALIFORNIA

PREPARED FOR

FRONTIER ENTERPRISES
2151 EAST CONVENTION CENTER WAY, SUITE 114
ONTARIO, CALIFORNIA 91764

PREPARED BY

GEOTEK, INC.
1548 NORTH MAPLE STREET
CORONA, CALIFORNIA 92880

PROJECT NO. 2749-CR **MAY 21, 2021**

GEOTEK

GeoTek, Inc.
1548 North Maple Street, Corona, California 92878
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

May 21, 2021
Project No. 2749-CR

Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764

Attention: Mr. Tim Nguyen

Subject: Geotechnical and Infiltration Evaluation
Proposed Multi-Family Residential Development
APN Nos. 0133-171-07, -08, -09 and -31
North Acacia Avenue & East Foothill Boulevard
Rialto, San Bernardino County, California

Dear Mr. Nguyen:

We are pleased to provide herein the results of our geotechnical and infiltration evaluation for the subject site located in Rialto, San Bernardino County, California. This report presents a discussion of our evaluation and provides preliminary geotechnical recommendations for earthwork, foundation design, and construction.

In our opinion, site development appears feasible from a geotechnical viewpoint provided that the recommendations included herein are incorporated into the design and construction phases of site development.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.





Edward H. LaMont
CEG 1892, Exp. 07/31/22
Principal Geologist

Robert R. Russell
GE 2042, Exp. 12/31/22
Senior Project Engineer

Anna M. Scott
Project Geologist

Distribution: (1) Addressee

G:\Projects\2701 to 2750\2749CR Frontier Enterprises N Acacia Ave & E Foothill Rialto\Geotechnical and Infiltration Evaluation\2749CR Geotechnical and Infiltration Evaluation Rialto.docx

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ENCLOSURES

Figure 1 – Site Location and Topography Map
Figure 2 – Boring Location Map

Appendix A – Logs of Exploratory Borings
Appendix B – Laboratory Test Results
Appendix C – Infiltration Test Data
Appendix D – Seismic Settlement Analysis
Appendix E – General Grading Guidelines

1. PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to complete an evaluation of the existing geotechnical conditions at the project site, as outlined in our proposal P-0408121-CR, dated April 22, 2021. Services provided for this study included the following:

- Research and review of available geologic and geotechnical data, and general information pertinent to the site,
- Perform a site reconnaissance,
- Site exploration consisting of the excavation and sampling of six exploratory borings observed and logged by a geologist from our firm,
- Excavation of two additional shallow borings for infiltration testing and performance of percolation testing in each of these borings,
- Collection of representative soil samples from the test borings and performing laboratory testing on select samples,
- Review and evaluation of site seismicity, and
- Compilation of this updated geotechnical report which presents our recommendations for site development.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

2.1 SITE DESCRIPTION

The site is located on the north side of Foothill Boulevard and east of the intersection with Acacia Avenue in Rialto, San Bernardino County, California. The site consists of vacant land and slopes gently downward to the south with about 5 feet of elevation differential. The site is bordered by residential and commercial properties. The location of the site is indicated on Figure 1.

Various aerial photographs dated 1930 to 2020, which included coverage of the site, were reviewed.

The site appears to be land utilized for agriculture in the 1930 and 1938 aerial photographs. Structures are present in the south portion of the site in the 1949 and 1953 aerial photographs. The remaining portions of the site appear to be land utilized for agriculture. The site is cleared of agriculture in the 1959, 1966, 1968, 1975, 1985, 1989 and 1990 aerial photographs. Structures are still evident in the south portion of the site.

Structures in the southeast portion of the site appear to have been demolished in the 1995 aerial photograph. Structures can be observed in the southwest portion of the site. The remaining portions of the site appear to be vacant and developed land. One of the structures in the southwest portion of the site appears to have been demolished in the 2002 and 2006 aerial photographs. One structure is still present in the southwest portion of the site. The remaining portions of the site appear to be vacant and developed land.

The structure in the southwest portion of the site appears to have been demolished in the 2009 aerial photograph. The remaining portions of the site appear to be vacant and developed land.

The site appears to be vacant and developed land in the 2012 aerial photograph. Grading can be observed on the site in the 2016 aerial photograph. The site appears to be vacant and similar to current conditions in the 2020 aerial photograph.

2.2 PROPOSED DEVELOPMENT

Although development plans have not yet been prepared, we understand that the site development will consist of multi-family (apartment) buildings along with surface improvements, underground utilities and stormwater management facilities.

We have assumed that the structures will consist of 1 to 3-story buildings and will be supported by conventional shallow foundations and will incorporate slab on-grade floor systems. Although structural loading information has not been provided, we have assumed maximum column and wall laods of less than 75 kips and 4 kips per foot, respectively. Once actual structural loads are known, that information should be provided to GeoTek to determine if revisions to the recommendations presented in this report are warranted.

Based on the current site topography, we anticipate that the maximum depths of cut and fill will be about 5 feet, not including any remedial grading. If site development differs from the assumptions made herein, the recommendations included in this report should be subject to further review and evaluation. Site development plans should be reviewed by GeoTek when they become available.

3. FIELD EXPLORATION & LABORATORY TESTING

3.1 FIELD EXPLORATION

The field exploration for GeoTek's evaluation was conducted on May 3, 2021 and consisted of excavating six (6) geotechnical exploratory borings extended to depths ranging from about 20 to 51 feet below ground surface. Two shallow borings were also drilled to depths of about 5 feet for percolation testing. The approximate locations of the GeoTek excavations are shown on the Boring Location Map (Figure 2). Logs of the GeoTek borings are included in Appendix A.

Relatively undisturbed soil samples were recovered at various intervals in the geotechnical borings with a California sampler. The California sampler is a 3-inch outside diameter, 2.4-inch inside diameter, split barrel sampler lined with brass rings. The sampler was 18 inches long. The sampler conformed to the requirements of ASTM D 3550. A 140-pound automatic trip hammer was utilized, dropping 30 inches for each blow. The relatively undisturbed samples, together with bulk samples of representative soil types, were returned to the laboratory for testing and evaluation. The California ring sampler data is presented on the boring logs.

3.2 LABORATORY TESTING

Laboratory testing was performed by GeoTek on selected soil samples obtained from the borings. The purpose of the laboratory testing was to confirm the field classification of the soils encountered and to evaluate the physical properties of the soils for use in engineering design and analysis.

Included in our laboratory testing were moisture-density determinations and collapse testing on selected relatively undisturbed samples. The optimum moisture content-maximum dry density relationship was established for typical soil types so that the relative compaction of the subsoils could be determined. Direct shear testing was performed on selected samples to help evaluate the bearing capacity of the soils. Expansion index testing was performed on two selected sample to evaluate the expansion potential of the site soils. Chemical testing comprised of pH, soluble sulfate, chloride and resistivity testing was conducted on selected samples. The moisture-density data is presented on the exploration logs in Appendix A. The maximum density, direct shear, collapse tests, expansion index and chemical test data are presented in Appendix B.

3.3 PERCOLATION TESTING

Percolation testing was performed at boring locations I-1 and I-2, in the area anticipated to be used for stormwater infiltration, to assess the infiltration characteristics of the site soils within the future stormwater management basin. These borings were excavated to approximately 5 feet below the existing grade. The boring diameter was approximately eight inches. Subsequent to overnight pre-soaking, percolation testing was performed, in accordance with the methods approved by San Bernardino County, within the lower approximately 20 inches in the borings. The percolation rates were then corrected to account for discharge of water from both the sides and bottom of the borings. This correction was performed using the Porchet Method, obtaining the infiltration rates tabulated below:

SUMMARY OF RESULTS		
Boring	Measured Field Percolation Rate (minutes per inch)	Calculated Infiltration Rate (inches per hour)
I-1	2.22	3.54
I-2	2.31	3.35

Copies of the field data sheets and infiltration conversion sheets (Porchet Method) are included in Appendix C. The reported infiltration rate is the measured rate without any factor of safety applied. Over the lifetime of the detention basin, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates in design the infiltration system.

It should be noted that the infiltration rates provided above were performed in relatively undisturbed native soils. Infiltration rates will vary and are mostly dependent on the underlying consistency of the site soils and relative density. Infiltration rates will be impacted by weight of equipment travelling over the soils, placement of engineered fill and other various factors. GeoTek, Inc. assumes no responsibility or liability for the ultimate design or performance of the storm water facility.

4. GEOLOGIC AND SOILS CONDITIONS

4.1 REGIONAL SETTING

The subject property is situated in the Peninsular Ranges geomorphic province near the border with the Transverse Ranges. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends roughly 975 miles from the north and extends from the Transverse Ranges geomorphic province to the tip of Baja California, from north to south. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

More specific to the subject property, the site is located in an area geologically mapped to be underlain by alluvium (Dibblee, T. W. and Minch, J.A., 2004), described as gravel and sand.

4.2 GENERAL SOIL/GEOLOGIC CONDITIONS

A brief description of the earth materials encountered below the site and within the area of anticipated construction is presented in the following section. Based on our field exploration, the area of anticipated improvements is underlain by alluvium.

4.2.1 Undocumented Fill

Undocumented fill was observed within all geotechnical borings and extended to depths ranging from about 6 to 8-½ feet below existing grade. As encountered in the borings, the undocumented fill consisted of a medium dense to very dense silty sand with trace gravel.

According to the results of the laboratory testing performed on two representative samples of the near surface soils, the near surface soils have a "very low" expansion potential (EI=0) when tested and classified in accordance with ASTM D 4829. The test results are provided in Appendix B.

4.2.2 Alluvium

Alluvium was encountered beneath the existing undocumented fill in all geotechnical borings and extended to the maximum depth explored. The alluvium encountered consisted of a medium dense to very dense silty sand with variable gravel and cobble content. The blow counts (N-values) obtained during field testing may have been elevated due to the presence of cobbles.

4.3 SURFACE AND GROUNDWATER

4.3.1 Surface Water

If encountered during the earthwork construction, surface water on this site is the result of precipitation or surface run-off from surrounding sites. Provisions for surface drainage will need to be accounted for by the project civil engineer.

4.3.2 Groundwater

Groundwater was not encountered within any of the GeoTek borings which extended to a maximum depth of about 50 feet below grade. A review of groundwater depth information noted on the State Department of Water Resources Water Data Library website indicates a depth to groundwater is greater than about 200 feet below grade within wells in the site vicinity.

It is possible that seasonal variations (temperature, rainfall, etc.) will cause fluctuations in the groundwater level. Additionally, perched water may be encountered at shallow depths following extensive rain events. If shallow perched water is encountered, we anticipate that it can be managed with conventional sump pumps.

4.4 FAULTING AND SEISMICITY

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The site is in a seismically active region. No active or potentially active fault is known to exist at this site nor is the site situated within an *"Alquist-Priolo"* Earthquake Fault Zone. The subject property is not located within a State of California Seismic Hazard Zone for earthquake induced landsliding. The site is also not within a seismic hazard area as identified on the San Bernardino County Geologic Hazards Overlay Map (Sheet FH30_C). The nearest zoned fault is the San Jacinto fault, located about 1.1 mile to the northeast.

4.4.1 Seismic Design Parameters

The site is located at approximately 34.1078 degrees Latitude and -117.3599 degrees Longitude. Site spectral accelerations (S_a and S_1), for 0.2 and 1.0 second periods for a Class "D" site, was determined from the SEAOC/OSHPD web interface that utilizes the USGS web services and retrieves the seismic design data and presents that information in a report format. Using the ASCE 7-16 option on the SEAOC/OSHPD website results in the values for S_{M1} and S_{D1} reported as "null-See Section 11.4.8" (of ASCE 7-16). As noted in ASCE 7-16, Section 11.4.8, a site-specific ground motion procedure is recommended for Site Class D when the value S_1 exceeds 0.2. The value S_1 for the subject site exceeds 0.2.

For a site Class D, an exception to performing a site-specific ground motion analysis is allowed in ASCE 7-16 where S_1 exceeds 0.2 provided the value of the seismic response coefficient, Cs, is conservatively calculated by Eq 12.8-2 of ASCE 7-16 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Eq. 12.8-3 for $T_L \geq T > 1.5T_s$ or Eq. 12.8-4 for $T > T_L$.

The results, based on the 2015 NEHRP and the 2019 CBC, are presented in the following table and we have assumed that the exception as allowed in ASCE 7-16 is applicable. If the exception is deemed not appropriate, a site-specific ground motion analysis will be required.

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, S_s	2.235g
Mapped 1.0 sec Period Spectral Acceleration, S_1	0.892g
Site Coefficient for Site Class "D", F_a	1.0
Site Coefficient for Site Class "D", F_v	1.7
Maximum Considered Earthquake Spectral Response Acceleration for 0.2 Second, S_{MS}	2.235g
Maximum Considered Earthquake Spectral Response Acceleration for 1.0 Second, S_{M1}	1.516g
5% Damped Design Spectral Response Acceleration Parameter at 0.2 Second, S_{DS}	1.49g
5% Damped Design Spectral Response Acceleration Parameter at 1 second, S_{D1}	1.011g
Peak Ground Acceleration Adjusted for Site Class Effects, PGA_M	1.036g
Seismic Design Category	E

4.5 LIQUEFACTION CONSIDERATIONS

A review of the San Bernardino County Geologic Hazard Maps (Map FH30-C) indicates the site is not situated within an area that is designated as possessing a liquefaction hazard. Due to the current mapping and the great depth to groundwater (200+ feet), it is our opinion that the potential for liquefaction at this site due to nearby seismic activity is nil.

An assessment of the "dry" settlement (i.e. settlement above the water table) resulting from seismic shaking was also evaluated. For this analysis we used a groundwater depth of 100 feet, a ground acceleration (PGA_M) of 1.036g and a mean earthquake magnitude of 7.39. The ground acceleration and earthquake magnitude were obtained from the USGS websites. The computer software program LiquefyPro and the soil profiled from Boring B-1 were used in the analysis. The results of this analysis indicate a potential ground surface settlement of about 1 inch is possible. A differential seismic settlement of about ½ inch over a 40 foot span is estimated. Based on these estimated magnitudes, ground modification or special foundation design is not deemed necessary. The results of the seismic dry settlement analysis are presented in Appendix D.

4.6 OTHER SEISMIC HAZARDS

Evidence of ancient landslides or slope instabilities at this site was not observed during our investigation. Thus, the potential for landslides is considered negligible for design purposes. The potential for secondary seismic hazards such as a seiche or tsunami is considered negligible due to site elevation and distance to an open body of water.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 GENERAL

Development of the site appears feasible from a geotechnical viewpoint. The following recommendations should be incorporated into the design and construction phases of development.

5.2 EARTHWORK CONSIDERATIONS

Earthwork and grading should be performed in accordance with the applicable grading ordinances of the City of Rialto, the 2019 California Building Code (CBC) and recommendations

contained in this report. Site grading plans should be reviewed by this office when they become available. Additional recommendations may be offered subsequent to review of these plans. The General Grading Guidelines included in Appendix E outline general procedures and do not anticipate all site-specific situations. In the event of conflict, the recommendations presented in the text of this report should supersede those contained in Appendix E.

5.2.1 Site Clearing

Initial site preparation should include removal of any encountered existing improvements, vegetation and any other deleterious materials within the planned development area of the site. Any old foundations or other below-grade construction should be removed within the limits of the new improvements. The horizontal limits of the clearing should extend at least 8 feet beyond the new buildings and beneath any new improvements.

Voids resulting from removing any materials should be replaced with engineered fill materials with expansion characteristics similar to the onsite materials.

5.2.2 Site Preparation

We recommend that the upper one foot of the existing undocumented fill beneath and extending at least 8 feet beyond the planned structures (including retaining walls and adjacent patios) be removed prior to additional fill placement. The soils exposed at the base of the over-excavation should then be examined by a GeoTek representative to confirm that the exposed soils are suitable for structural support. If unsuitable soils are encountered, those materials should be removed as recommended by GeoTek. Once approved, the exposed soils should be scarified to a depth of about 12 inches, be moisture treated to slightly above the soil's maximum dry density, per ASTM D1557, and then be compacted to at least 90% of the soil's maximum dry density (ASTM D1557).

Beneath new roadways, pavements, other surface improvements and areas to receive new fill, and following lowering of site grades, where necessary, we recommend that the existing soils be proof rolled in the presence of a GeoTek representative. Proof rolling equipment should possess a minimum static weight of 10 tons and proof rolling should consist of at least four passes, two in each perpendicular direction. Any soil that ruts or excessively deflects during proof rolling should be removed as recommended by the GeoTek representative. Following proof rolling, the exposed soils should be scarified, moisture treated and compacted as recommended in the prior paragraph.

5.2.3 Fills

On-site materials are generally considered suitable for reuse as engineered fill, provided they are free from vegetation, roots, and other deleterious material. Rock fragments (i.e. cobbles or boulders) greater than 6 inches in maximum dimension should not be incorporated into engineered fill. The fill materials should also be placed so that void resulting from nesting of cobbles does not occur.

Engineered fill materials should be placed in horizontal lifts not exceeding 8 inches in loose thickness, moisture conditioned to slightly over the optimum moisture content and compacted to a minimum relative compaction of 90 percent (ASTM D 1557).

5.2.4 Excavation Characteristics

Excavation in the on-site soils is expected to be feasible utilizing heavy-duty grading equipment in good operating condition. Due to the presence of cobbles and possible boulders, some excavation difficulties should be expected for excavations extending into the native alluvium.

5.2.5 Shrinkage/Bulking Estimates

Several factors will impact earthwork balancing on the site, including shrinkage, subsidence, trench spoil from utilities and footing excavations, as well as the accuracy of topography.

Shrinkage is primarily dependent upon the degree of compactive effort achieved during construction. For planning purposes, a shrinkage factor of approximately 0 to 8 percent may be considered for the materials requiring recompaction. Subsidence of less than 0.1 feet may also occur as a result of preparation of exposed ground. Site balance may also be impacted if over-sized materials are exported from the site.

5.2.6 Trench Excavations and Backfill

Temporary excavations within the onsite materials should be stable at 1:1 inclinations for short durations during construction, and where cuts do not exceed 10 feet in height. Temporary cuts to a maximum height of 4 feet can be excavated vertically, but local sloughing and/or failure could occur due to the granulated nature of the soils at this site. Increased caution should be applied when working near or within any excavations at this site.

Trench excavations should conform to Cal-OSHA regulations. The contractor should have a competent person, per OSHA requirements, on site during construction to observe conditions and to make the appropriate recommendations.

Utility trench backfill should be compacted to at least 90 percent relative compaction (as determined per ASTM D 1557). Under-slab trenches should also be compacted to project specifications. Onsite materials are not considered suitable for use as bedding material but should be suitable as backfill, provided over-sized materials are removed.

Compaction should be achieved with a mechanical compaction device. Ponding or jetting of trench backfill is not recommended. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

5.3 DESIGN RECOMMENDATIONS

Foundation design criteria for a conventional foundation system, in general conformance with the 2019 CBC, are presented below. The soils are classified as having a "very low" expansion potential in accordance with ASTM D 4829. Typical design criteria for the site based upon a "very low" expansion potential are tabulated below. These are minimal recommendations and are not intended to supersede the design by the project structural engineer. Once structural loading information is provided, revisions to the recommendations provided in this report may be necessary.

The conventional foundation elements for the proposed permanent buildings should bear entirely in engineered fill soils. Foundations should be designed in accordance with the 2019 CBC.

Expansion index and soluble sulfate evaluation of the soils should be performed during construction to evaluate the as-graded conditions. Final recommendations should be based upon the as-graded soils conditions.

A summary of our foundation design recommendations is presented in the following table:

GEOTECHNICAL RECOMMENDATIONS FOR FOUNDATION DESIGN

Design Parameter	"Very Low" Expansion Potential
Foundation Depth or Minimum Perimeter Beam Depth (inches below lowest adjacent grade)	12-1 &2 story 18-3 story
Minimum Foundation Width (Inches)*	12-1 story 15-2 story 18-3 story
Minimum Slab Thickness (actual)	4 – Actual
Minimum Slab Reinforcing	6" x 6" – W1.4/W1.4 welded wire fabric placed in middle of slab or No. 3 bars at 24 inch centers
Minimum Footing Reinforcement	Two No. 4 reinforcing bars, one placed near the top and one near the bottom
Effective Plasticity Index	PI<15
Presaturation of Subgrade Soil (Percent of Optimum)	Minimum of 100% of the optimum moisture content to a depth of at least 12 inches prior to placing concrete

* Code minimums per Table 1809.7 of the 2019 CBC

An allowable bearing capacity of 1,800 pounds per square foot (psf) may be used for design of building foundations for footing depths and widths of 12 inches. This allowable soil bearing capacity can be increased by 700 psf and 300 psf for each additional foot of footing depth or width to a maximum value of 3,000 psf. The allowable bearing capacity may also be increased by one-third when considering short-term wind and seismic loads.

For footings designed in accordance with the recommendations presented in this report, we would anticipate a maximum static settlement of less than one inch and a maximum differential static settlement of less than ½-inch in a 40-foot span.

The passive earth pressure may be computed as an equivalent fluid having a density of 270 psf per foot of depth, to a maximum earth pressure of 3,000 psf for footings cast adjacent to competent fill or alluvium. A coefficient of friction between soil and concrete of 0.4 may be used with dead load forces. The upper one foot of soil below the adjacent grade should not be used in calculating passive pressure unless the ground surface is covered with pavement. When combining passive and frictional resistance, the passive pressure component should be reduced by one-third.

A moisture and vapor retarding system should be placed below slabs-on-grade where moisture migration through the slab is undesirable. Guidelines for these are provided in the 2019 California Green Building Standards Code (CALGreen) Section 4.505.2 and the 2019 CBC Section 1907.1

and ACI 360R-10. The vapor retarder design and construction should also meet the requirements of ASTM E1643. A portion of the vapor retarder design should be the implementation of a moisture vapor retardant membrane.

It should be realized that the effectiveness of the vapor retarding membrane can be adversely impacted as a result of construction related punctures (e.g. stake penetrations, tears, punctures from walking on the aggregate layer, etc.). These occurrences should be limited as much as possible during construction. Thicker membranes are generally more resistant to accidental puncture than thinner ones. Products specifically designed for use as moisture/vapor retarders may also be more puncture resistant. Although the CBC specifies a six-mil vapor retarder membrane, it is GeoTek's opinion that a minimum 10 mil thick membrane with joints properly overlapped and sealed should be considered, unless otherwise specified by the slab design professional. The membrane should consist of Stego wrap or the equivalent.

Moisture and vapor retarding systems are intended to provide a certain level of resistance to vapor and moisture transmission through the concrete, but do not eliminate it. The acceptable level of moisture transmission through the slab is to a large extent based on the type of flooring used and environmental conditions. Ultimately, the vapor retarding system should be comprised of suitable elements to limit migration of water and reduce transmission of water vapor through the slab to acceptable levels. The selected elements should have suitable properties (i.e., thickness, composition, strength, and permeability) to achieve the desired performance level. Consideration should be given to consulting with an individual possessing specific expertise in this area for additional evaluation.

Moisture retarders can reduce, but not eliminate, moisture vapor rise from the underlying soils up through the slab. Moisture retarders should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Concrete Institute, ASTM and California Building Code requirements and guidelines.

GeoTek recommends that a qualified person, such as the flooring contractor, structural engineer, and/or architect be consulted to evaluate the general and specific moisture vapor transmission paths and associated potential impact.

In addition, the recommendations in this report and our services in general are not intended to address mold prevention, since we along with geotechnical consultants in general, do not practice in areas of mold prevention. If specific recommendations are desired, a professional mold prevention consultant should be contacted.

5.3.1 Miscellaneous Foundation Recommendations

5.3.1.1 To minimize moisture penetration beneath the slab on grade areas, utility trenches should be backfilled with engineered fill, lean concrete or concrete slurry where they intercept the perimeter footing or thickened slab edge.

5.3.1.2 Soils from the footing excavations should not be placed in the slab-on-grade areas unless properly compacted and tested. The excavations should be free of loose/sloughed materials and be neatly trimmed at the time of concrete placement.

5.3.1.3 Under-slab utility trenches should be compacted to project specifications. Compaction should be achieved with a mechanical compaction device. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

5.3.1.4 Utility trench excavations should be shored or laid back in accordance with applicable CAL/OSHA standards.

5.3.1.5 On-site materials may not be suitable for use as bedding material but will be suitable as backfill. Jetting of native soils will not be acceptable.

5.3.2 Foundation Setbacks

Foundations should comply with the following setbacks. Improvements not conforming to these setbacks are subject to the increased likelihood of excessive lateral movements and/or differential settlements. If large enough, these movements can compromise the integrity of the improvements. The following recommendations are presented:

- The outside bottom edge of all footings should be set back a minimum of H/3 (where H is the slope height) from the face of any descending slope. The setback should be at least 7 feet and need not exceed 40 feet.
- The bottom of all footings for structures near retaining walls should be deepened so as to extend below a 1:1 projection upward from the bottom inside edge of the wall stem.
- The bottom of any existing foundations for structures should be deepened so as to extend below a 1:1 projection upward from the bottom of the nearest excavation.

5.4 RETAINING WALL DESIGN AND CONSTRUCTION

5.4.1 General Design Criteria

Recommendations presented in this report apply to typical masonry or concrete vertical retaining walls. These are typical design criteria and are not intended to supersede the design by the structural engineer.

Retaining wall foundations should be designed in accordance with *Section 5.3* of this report. A minimum foundation embedment of 12 inches into engineered compacted fill with "very low" expansion potential is recommended. Structural needs may govern and should be evaluated by the project structural engineer.

All earth retention structure plans, as applicable, should be reviewed by this office prior to finalization.

The backfill material placement for all earth retention structures should meet the requirement of *Section 5.4.4* in this report.

In general, cantilever earth retention structures, which are designed to yield at least 0.001H, where H is equal to the height of the wall to the base of the footing, may be designed using the active condition. Rigid earth retention structures (including but not limited to rigid walls, and walls braced at top, such as typical basement walls) should be designed using the at-rest condition.

In addition to the design lateral forces due to retained earth, surcharges due to improvements, such as an adjacent building or traffic loading, should be considered in the design of the earth retention structures. Loads applied within a 1:1 (h:v) projection from the surcharge on the stem of the earth retention structure should be considered in the design.

Final selection of the appropriate design parameters should be made by the designer of the earth retention structures.

5.4.2 Cantilevered Walls

The recommendations presented below are for cantilevered retaining walls. Active earth pressure may be used for retaining wall design, provided the top of the wall is not restrained from minor deflections. An equivalent fluid pressure approach may be used to compute the horizontal pressure against the wall. Appropriate fluid unit weights are given below for specific

slope gradients of the retained material. These do not include other superimposed loading conditions such as traffic, structures, seismic events, or adverse geologic conditions.

Surface Slope of Retained Materials (h:v)	Equivalent Fluid Pressure (pcf) Native Backfill*
Level	38

* The design pressures assume the backfill material has an expansion index less than or equal to 20. Backfill zone includes area between the back of the wall and footing to a plane (1:1 h:v) up from the bottom of the wall foundation to the ground surface.

5.4.3 Restrained Retaining Walls

Retaining walls that will be restrained prior to placing and compacting backfill material, or that have reentrant or male corners, should be designed for an at-rest equivalent fluid pressure of 60 pcf, plus any applicable surcharge loading, for very low expansive backfill (EI<20) and level back slope condition. For areas of male or reentrant corners, the restrained wall design should extend a minimum distance of twice the height of the wall laterally from the corner, or a distance otherwise determined by the project structural engineer.

5.4.4 Retaining Wall Backfill and Drainage

Retaining wall backfill should consist of materials with an expansion index (EI) ≤ 20 and free of deleterious and/or oversized materials. The wall backfill should also include a minimum one-foot wide section of ¾- to 1-inch clean crushed rock (or approved equivalent). The rock should be placed immediately adjacent to the back of wall and extend up from the back drain to within approximately 12 inches of finish grade. The upper 12 inches should consist of compacted onsite materials or pavements. Presence of other materials might necessitate revision to the parameters provided and modification of wall designs. The backfill materials should be placed in lifts no greater than 8-inches in thickness and compacted to a minimum of 90 percent relative compaction in accordance with ASTM Test Method D 1557. Proper surface drainage needs to be provided and maintained. Bracing of the walls during backfilling and compaction may also be necessary.

All earth retention structures should be provided with an adequate pipe and gravel back drain system to reduce the potential for hydrostatic pressure build up. As a minimum, backdrains should consist of a four-inch diameter perforated collector pipe (Schedule 40, SDR 35, or approved equivalent) embedded in a minimum of one cubic foot per lineal foot of ¾- to 1-inch clean crushed rock or equivalent, wrapped in filter fabric (Mirafi 140N or approved equivalent). The drain system should be connected to a suitable outlet, as determined by the civil engineer. Drain outlets should be maintained over the life of the project and should not be

obstructed or plugged by adjacent improvements. Waterproofing of site walls should be performed where moisture migration through the wall is undesirable.

Proper surface drainage needs to be provided and maintained. Water should not be allowed to pond behind retaining walls. Waterproofing of site walls should be performed where moisture migration through the wall is undesirable.

5.5 SOIL CORROSIVITY

Based on the chemical test results performed on two samples collected from the site as presented in Appendix B, the corrosivity test results indicate that the on-site soils are "moderately corrosive" to "mildly corrosive" to buried ferrous metal. This corrosion classification is obtained from "Handbook of Corrosion Engineering," by Pierre R. Roberge, 2nd Edition, 2000. Recommendations for protection of buried ferrous metal should be provided by a corrosion engineer. Additional corrosion testing should be performed at the time of site grading to assess the corrosion of potential of the as-graded soils.

5.5.1 Soil Sulfate Content

The sulfate content was determined in the laboratory for two representative onsite soil samples. The results indicate that the water-soluble sulfate is less than 0.1 percent by weight which is considered "not applicable" (i.e. negligible) as per Table 4.2.1 of ACI 318. Based upon the test results, no special concrete mix design is required by Code for sulfate attack resistance.

5.5.2 Import Soils

Import soils (if needed) should have an Expansion Index of less than 20 (very low) and should not possess oversized or deleterious materials. GeoTek also recommends that, as a minimum, any proposed import soils be tested for soluble sulfate content. GeoTek should be notified a minimum of 72 hours of potential import sources so that appropriate sampling and laboratory testing can be performed.

5.6 PRELIMINARY PAVEMENT DESIGN

Preliminary pavement design for proposed street improvements was conducted per Caltrans *Highway Design Manual* guidelines for flexible pavements. Based on an assumed design R-value of 40 and for Traffic Indices (TIs) of 5.0 and 6.0, the following preliminary sections were calculated:

PRELIMINARY MINIMUM PAVEMENT SECTION		
Traffic Index	Thickness of Asphalt Concrete (inches)	Thickness of Aggregate Base (inches)
5.0	3	4
6.0	3-½	6

Traffic Indices (TIs) used in our pavement design are considered reasonable values for the proposed residential street areas and should provide a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance. Irrigation adjacent to pavements, without a deep curb or other cutoff to separate landscaping from the paving may result in premature pavement failure. Traffic parameters used for design were selected based upon engineering judgment and not upon information furnished to us such as an equivalent wheel load analysis or a traffic study.

The recommended pavement sections provided are intended as a minimum guideline and final selection of pavement cross section parameters should be made by the project civil engineer, based upon the local laws and ordinates, expected subgrade and pavement response, and desired level of conservatism. If thinner or highly variable pavement sections are constructed, increased maintenance and repair could be expected. Final pavement design should be checked by testing of soils exposed at subgrade (the upper five feet) after final grading has been completed.

Asphalt concrete and aggregate base should conform to current Caltrans Standard Specifications Section 39 and 26-1.02, respectively. As an alternative, asphalt concrete can conform to Section 203-6 of the current Standard Specifications for Public Work (Green Book). Crushed aggregate base or crushed miscellaneous base can conform to Section 200-2.2 and 200-2.4 of the Green Book, respectively. Pavement base should be compacted to at least 95 percent of the ASTM D1557 laboratory maximum dry density (modified proctor).

All pavement installation, including preparation and compaction of subgrade, compaction of base material, placement and rolling of asphaltic concrete should be done in accordance with the City of Rialto specifications, and under the observation and testing of GeoTek and a City Inspector where required. Jurisdictional minimum compaction requirements in excess of the aforementioned minimums may govern.

Deleterious material, excessive wet or dry pockets, oversized rock fragments, and other unsuitable yielding materials encountered during grading should be removed. Once existing compacted fill are brought to the proposed pavement subgrade elevations, the subgrade should be proof-rolled in order to check for a uniform and unyielding surface. The upper 12 inches of

pavement subgrade soils should be scarified, moisture conditioned at or near optimum moisture content, and recompacted to at least 95 percent of the laboratory maximum dry density (ASTM D1557). If loose or yielding materials are encountered during construction, additional evaluation of these areas should be carried out by GeoTek. All pavement section changes should be properly transitioned.

5.7 CONCRETE FLATWORK

5.7.1 Exterior Concrete Slabs and Sidewalks

Exterior concrete slabs and sidewalks should be designed using a four (4) inch minimum thickness. No specific reinforcement is required due to the non-structural nature and the very low expansive nature of the site soils. However, the use of some reinforcement should be considered. Recommendations can be provided upon request. Some shrinkage and cracking of the concrete should be anticipated as a result of typical mix designs and curing practices commonly utilized in residential construction.

Sidewalks and driveways may be under the jurisdiction of the governing agency. If so, jurisdictional design and construction criteria would apply, if more restrictive than the recommendations presented herein.

Subgrade soils, classified as having "very low" expansion potential, should be pre-moistened prior to placing concrete. The subgrade soils below exterior slabs, sidewalks, driveways, etc. at the subject site should be pre-saturated to a minimum of 100% of optimum moisture content to a depth of 12 inches for "very low" expansive soils.

All concrete installation, including preparation and compaction of subgrade, should be done in accordance with City of Rialto specifications, and under the observation and testing of GeoTek and a City Inspector, if necessary.

5.7.2 Concrete Performance

Concrete cracks should be expected. These cracks can vary from sizes that are essentially unnoticeable to more than 1/8 inch in width. Most cracks in concrete, while unsightly, do not significantly impact long-term performance. While it is possible to take measures (proper concrete mix, placement, curing, control joints, etc.) to reduce the extent and size of cracks that occur, some cracking will occur despite the best efforts to minimize it. Concrete can also undergo chemical processes that are dependent on a wide range of variables, which are difficult, at best, to control. Concrete, while seemingly a stable material, is also subject to internal expansion and contraction due to external changes over time.

One of the simplest means to control cracking is to provide weakened control joints for cracking to occur along. These do not prevent cracks from developing; they simply provide a relief point for the stresses that develop. These joints are a widely accepted means to control cracks but are not always effective. Control joints are more effective the more closely spaced they are. GeoTek suggests that control joints be placed in two directions and located a distance apart roughly equal to 24 to 36 times the slab thickness.

Exterior concrete flatwork (patios, walkways, driveways, etc.) is often some of the most visible aspects of site development. They are typically given the least level of quality control, being considered "non-structural" components. We suggest that the same standards of care be applied to these features as to the structure itself.

5.8 POST CONSTRUCTION CONSIDERATIONS

5.8.1 Landscape Maintenance and Planting

Water has been shown to weaken the inherent strength of soil, and slope stability is significantly reduced by overly wet conditions. Positive surface drainage away from graded slopes should be maintained and only the amount of irrigation necessary to sustain plant life should be provided for planted slopes. Controlling surface drainage and runoff and maintaining a suitable vegetation cover can minimize erosion. Plants selected for landscaping should be lightweight, deep-rooted types that require little water and are capable of surviving the prevailing climate.

Overwatering should be avoided. The soils should be maintained in a solid to semi-solid state as defined by the materials Atterberg Limits. Care should be taken when adding soil amendments to avoid excessive watering. Leaching as a method of soil preparation prior to planting is not recommended. An abatement program to control ground-burrowing rodents should be implemented and maintained. This is critical as burrowing rodents can decreased the long-term performance of slopes.

It is common for planting to be placed adjacent to structures in planter or lawn areas. This will result in the introduction of water into the ground adjacent to the foundation. This type of landscaping should be avoided. If used, then extreme care should be exercised with regard to the irrigation and drainage in these areas.

5.8.2 Drainage

The need to maintain proper surface drainage and subsurface systems cannot be overly emphasized. Positive site drainage should be maintained at all times. Drainage should not flow

uncontrolled down any descending slope. Water should be directed away from foundations and not allowed to pond or seep into the ground. Pad drainage should be directed toward approved areas and not be blocked by other improvements.

It is the owner's responsibility to maintain and clean drainage devices on or contiguous to their lot. In order to be effective, maintenance should be conducted on a regular and routine schedule and necessary corrections made prior to each rainy season.

5.9 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

We recommend that site foundation plans and relevant project specifications be reviewed by this office prior to construction to check for conformance with the recommendations of this report. We also recommend that GeoTek representatives be present during site grading and foundation construction to check for proper implementation of the geotechnical recommendations. The owner/developer should verify that GeoTek representatives perform at least the following duties:

- Observe site clearing and grubbing operations for proper removal of unsuitable materials.
- Observe and test bottom of removals prior to fill placement.
- Evaluate the suitability of onsite and import materials for fill placement and collect soil samples for laboratory testing where necessary.
- Observe the fill for uniformity during placement, including utility trenches.
- Perform field density testing of the fill materials.
- Observe and probe foundation excavations to confirm suitability of bearing materials.

If requested, a construction observation and compaction report can be provided by GeoTek, which can comply with the requirements of the governmental agencies having jurisdiction over the project. We recommend that these agencies be notified prior to commencement of construction so that necessary grading permits can be obtained.

6. INTENT

It is the intent of this report to aid in the design and construction of the proposed development. Implementation of the advice presented in Section 5 of this report is intended to reduce risk associated with construction projects. The professional opinions and geotechnical advice

contained in this report are not intended to imply total performance of the project or guarantee that unusual or variable conditions will not be discovered during or after construction.

The scope of our evaluation is limited to the boundaries of the subject residential lot. This review does not and should in no way be construed to encompass any areas beyond the specific area of the proposed construction as indicated to us by the client. Further, no evaluation of any existing site improvements is included. The scope is based on our understanding of the project and the client's needs, our fee estimate (P-0408121-CR) dated April 22, 2021 and geotechnical engineering standards normally used on similar projects in this region.

7. LIMITATIONS

The materials observed on the project site appear to be representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Since our recommendations are based on the site conditions observed and encountered, and laboratory testing, our conclusion and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

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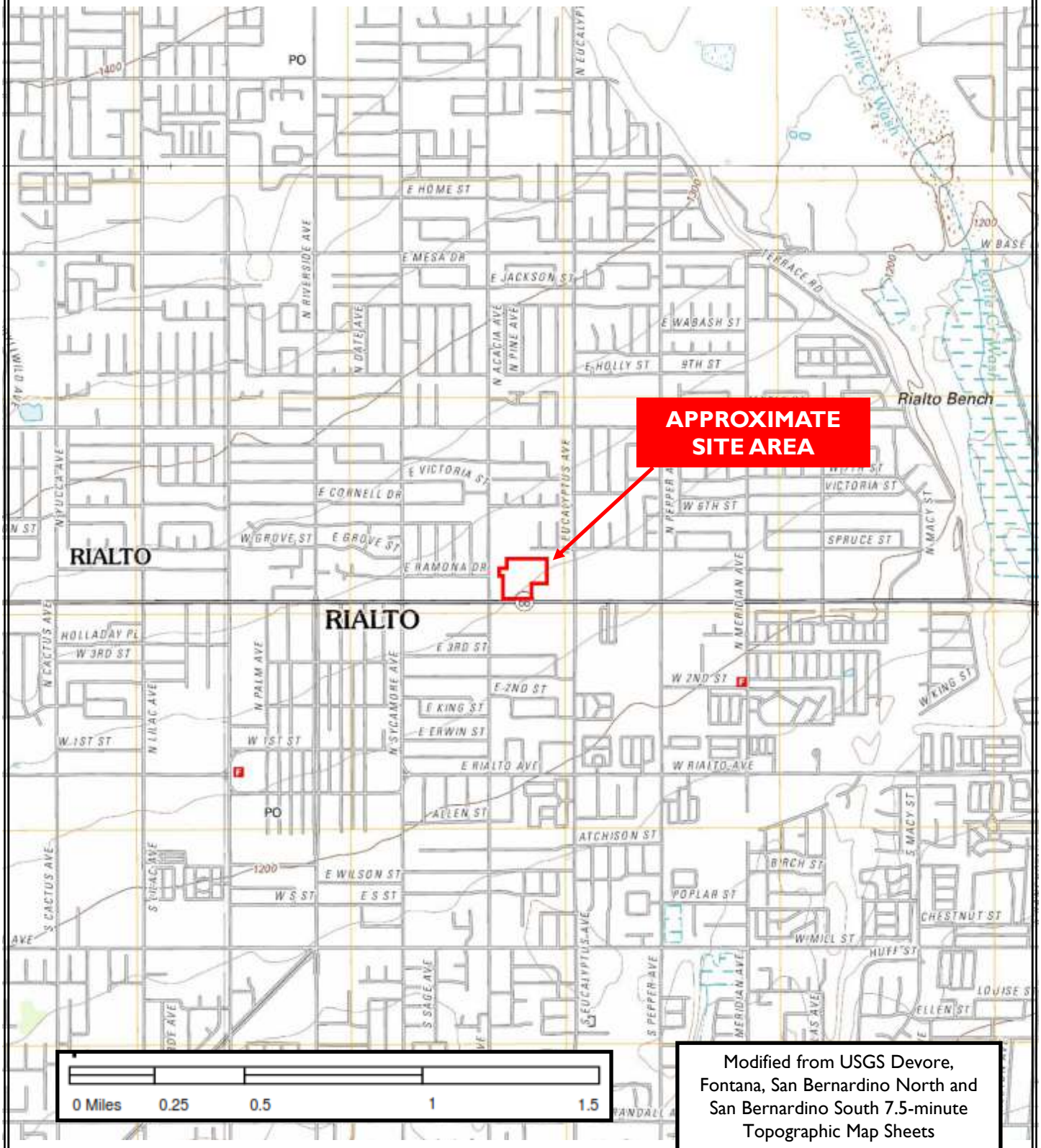
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Modified from USGS Devore, Fontana, San Bernardino North and San Bernardino South 7.5-minute Topographic Map Sheets

Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California

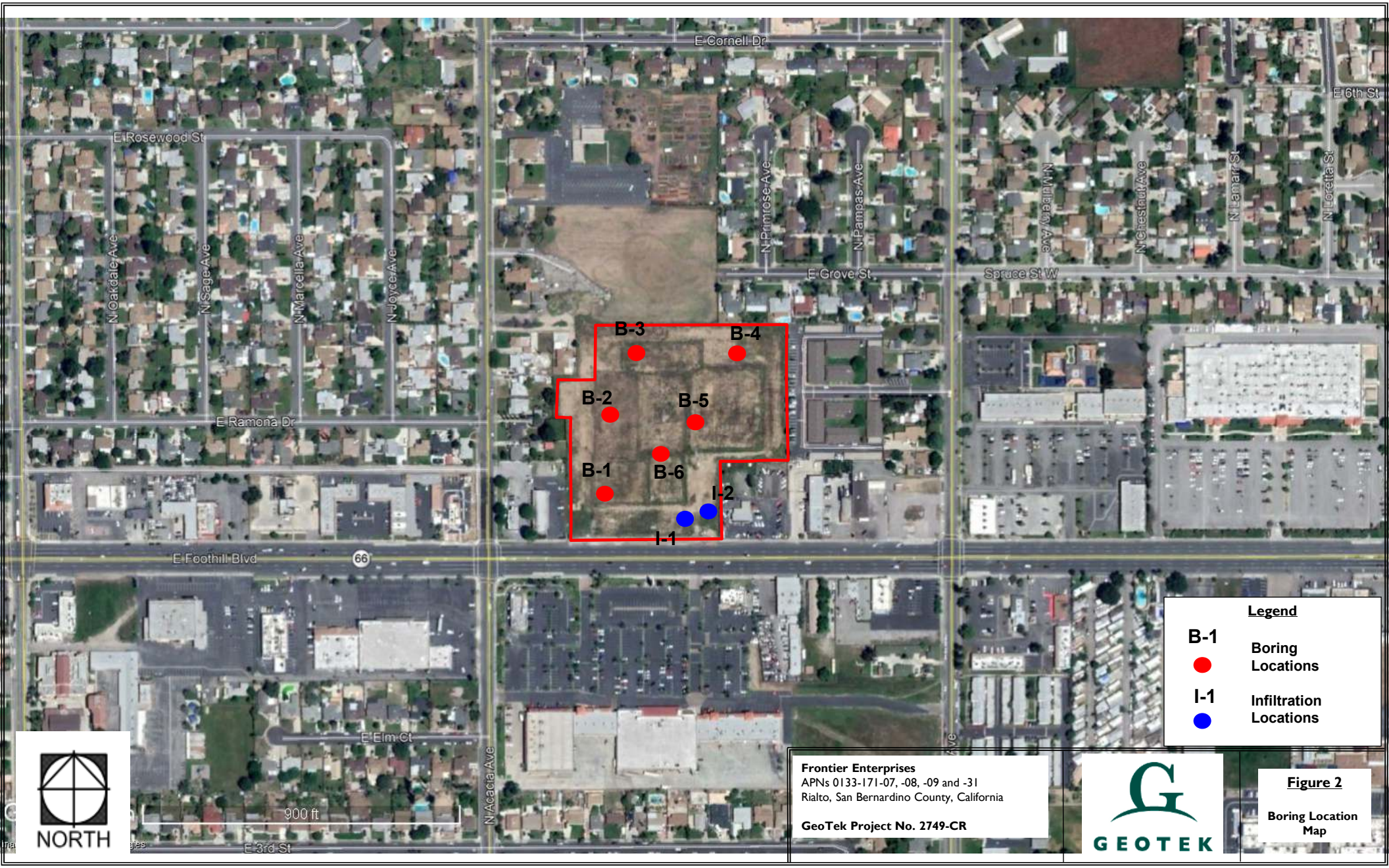
Project No. 2749-CR

NORTH

Figure 1

Site Location and Topography Map

GEOTEK



Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California

GeoTek Project No. 2749-CR

GEOTEK

Figure 2

Boring Location Map

APPENDIX A

LOGS OF EXPLORATORY BORINGS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Modified Split-Barrel Sampler (Ring)

The ring sampler is driven into the ground in accordance with ASTM Test Method D 3550. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

B – BORING/TRENCH LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the logs of borings/trenches:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C: Contact line	
……..	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of boring/trench

(Additional denotations and symbols are provided on the log of borings/trenches)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				SM	**Undocumented Fill:** Silty f sand, medium brown, slightly moist, very dense			
		18 50/6				5.3	132.7	SH, MD, EI, SR EI=0
		12 28 23			Silty f sand, medium brown, slightly moist, dense	4.0	124.2	
5		12 23 34			Silty f sand, medium brown, slightly moist, dense	6.8	129.1	
		21 37 41		SM	**Alluvium:** Silty m-c sand, dark grey, slightly moist, trace gravel & possible cobbles, dense	1.5		
10		9 17 22			Silty f-m sand, light brown, slightly moist, medium dense			
15		18 21 25			Silty f-c sand, light borwn, trace gravel, dense			
20		30 50-5"			Cobbles and Possible Boulders			
25		50-2"						
30		10 50-2"			Silty m-c Sand, dark grey, slightly moist, very dense trace gravel, possible cobbles			

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 (cont.) / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
35		50-5"			Silty m-c Sand, medium brown, slightly moist, very dense, trace gravel & cobbles			
40		50-6"			Silty m-c Sand, light grey, slightly moist, very dense, trace gravel & cobbles			
45		7 12 16		ML	Fine Sandy Silt, light brown, moist, very stiff			
50		34 50-5"		SM	Silty f-m Sand, light brown, moist, very dense, possible cobbles			
					BORING TERMINATED AT 51 FEET Boring backfilled with spoils No groundwaer encountered			
55								
60								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-2 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		20 23 43		SM	Silty f-m Sand, dark brown, slightly moist, dense	6.0	133.8	
5		20 35 50/5.5			Silty f-m Sand, dark brown, slightly moist, very dense	6.6	134.1	
		13 28 33			Silty f-m Sand, dark brown, slightly moist, trace gravel, dense	6.6	127.6	Collapse
		14 37 50/4.5		SM	**Alluvium:** Silty f-m Sand, light brown, slightly moist, very dense, trace gravel & cobbles cobbles	2.2	133.9	
10		10 23 33			Silty f-m Sand, light brown, slightly moist, dense			
15		12 26 18			Silty f-m Sand, light borwn, slight moisture, dense			
20		17 50/6			Silty m-c Sand, medium brown, slight moisture, very dense, cobbles			
					BORING TERMINATED AT 20.5 FEET Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-3 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		21 26 34		SM	Silty f-m Sand, medium brown, slightly moist, dense, trace gravel	6.2	123.3	
		14 15 16			Silty f-m Sand, dark brown, slightly moist, medium dense	5.2	130.3	
5		16 28 40			Silty f-m Sand, dark brown, slightly moist, dense	5.8	128.9	
		16 36 44			Silty f-m Sand, dark brown, slightly moist, very dense	7.1	131.4	
					Alluvium:			
10		15 20 25		SM	Silty fine Sand, slightly moist, medium dense			
15		12 50-5"			possible cobbles			
20		40 50-5"			Silty f-c Sand, dark brown, slighlty moist, very dense, gravel & cobbles			
					BORING TERMINATED AT 20.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

BORING NO.: B-4

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Water Content (%)	Dry Density (pcf)	Others
					Undocumented Fill:			MD, EI, SR EI-=0
		8 20 36		SM	Silty m-c Sand, grey, slightly moist, dense, trace gravel	3.1	126.3	
5		8 30 34			Silty m-c Sand, grey, slightly moist, dense, trace gravel	2.2	117.4	
		26 50		SM	**Alluvium:** Silty m-c Sand, light brown, slightly moist, very dense, trace gravel	2.4	125.7	Collapse
		19 40 50/5			Silty m-c Sand, light brown, slightly moist, very dense trace gravel & cobbles			
10		14 27 45			Silty m-c Sand, light brown, slightly moist, very dense trace gravel			
15		32 50-5"			Silty m-c Sand, light brown, slightly moist, very dense, trace gravel & cobbles			
20		50-6"			Silty m-c Sand, light brown, slightly moist,very dense, trace gravel & cobbles			
					BORING TERMINATED AT 20.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-5 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
	■	28 50-6"		SM	Silty f-m Sand, dark brown, very dense, slightly moist	6.4	119.9	
	■	17 30 40			Silty f-m Sand, dark brown, slightly moist, dense	5.0	124.5	
5	■	18 32 50			Silty f-m Sand, dark brown, slightly moist, very dense	6.7	124.3	
	■	16 30 44			Silty f-m Sand, dark brown, slightly moist, dense	6.7	126.0	
					Alluvium:			
10	■	17 34 34		SM	Silty f-m Sand, dark brown, slightly moist, dense trace gravel			
15	■	30 50-5"			Silty f-c Sand, medium brown, slightly moist, very dense, trace gravel with cobbles			
20	■	8 22 32			Silty m-c Sand, grey, slightly moist, dense, trace gravel			
					BORING TERMINATED AT 21.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-6 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		14 27 47		SM	Silty f-m Sand, dark brown, slightly moist, dense	6.4	132.1	
5		13 37 40			Silty f-m Sand, dark brown, slightly moist, very dense	5.5	119.7	
		7 19 19			Silty f-m Sand, light brown, slightly moist, medium dense	3.2	121.9	
		10 37 50/5		SM	**Alluvium:** Silty f-c Sand, light brown, slightly moist, very dense, possible cobbles	2.7	134.7	
10		13 27 40			m-c Sand, grey, slightly moist, dense, trace gravel			
15		12 42 36			m-c Sand, light brown, slightly moist, very dense, trace gravel			
20		30 50/5			m-c Sand, light brown, slightly moist, very dense, trace gravel & cobbles			
					BORING TERMINATED AT 20 FEET Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: I-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown, slightly moist			
5					**BORING TERMINATED AT 5 FEET**			
					No groundwater encountered Pipe with sock placed in gravel			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: I-2 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown, slightly moist			
5					**BORING TERMINATED AT 5 FEET**			
					No groundwater encountered Pipe with sock placed in gravel			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

LABORATORY TEST RESULTS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification
Soils were classified visually in general accordance with the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications by GeoTek are shown on the logs of exploratory borings in Appendix B.

Consolidation/Collapse
Consolidation/collapse testing was performed on selected samples of the site soils according to ASTM Test Method D 4546. The results of this testing are presented in Appendix B.

Direct Shear
Shear testing was performed in a direct shear machine of the strain-control type in general accordance with ASTM Test Method D 3080. The rate of deformation is approximately 0.035 inch per minute. The samples were sheared under varying confining loads in order to determine the coulomb shear strength parameters, angle of internal friction and cohesion. The results of the testing are presented in Appendix B.

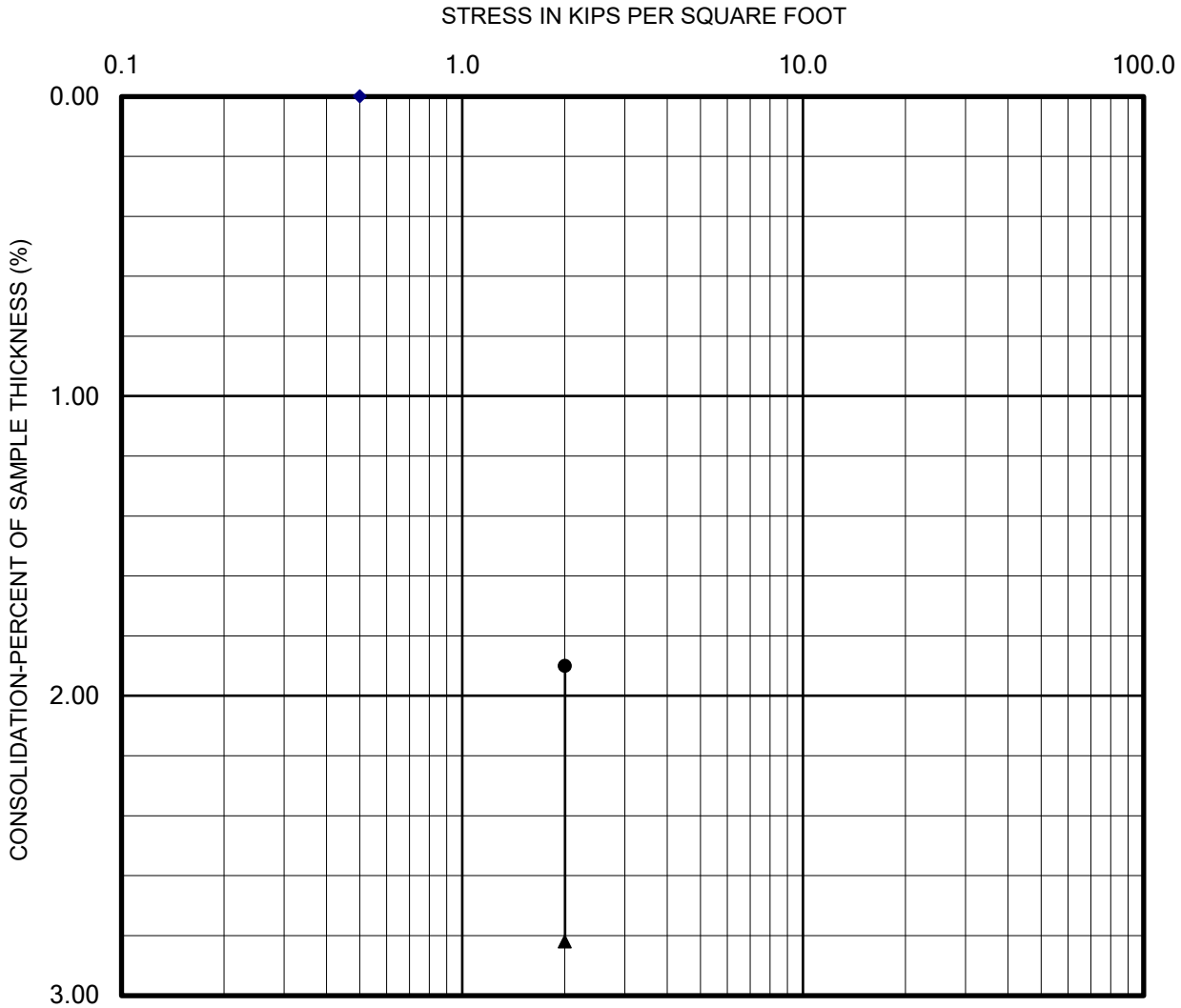
Expansion Index
Expansion Index testing was performed on two representative soil samples. Testing was performed in general accordance with ASTM Test Method D 4829. The results of the testing is provided below.

Boring No.	Depth (ft.)	Soil Type	Expansion Index	Classification
B-1	0-5	Silty Sand	0	Very Low
B-4	0-5	Silty Sand	0	Very Low

Moisture-Density Relationship
Laboratory testing was performed on two representative site samples collected during the recent subsurface exploration. The laboratory maximum dry density and optimum moisture content for the samples tested were determined in general accordance with test method ASTM Test Procedure D 1557. The results are included in Appendix B.

Sulfate Content, Resistivity and Chloride Content
Testing to determine the water-soluble sulfate content, resistivity testing and the chloride content was performed by others. The results of the testing are provided below and in Appendix B.

Boring No.	Depth (ft.)	pH ASTM G51	Chloride ASTM D4327 (ppm)	Sulfate ASTM D4327 (% by weight)	Resistivity ASTM G187 (ohm-cm)
B-1	0-5	7.9	13.5	0.0052	3,015
B-4	0-5	8.1	5.2	0.0018	6,700



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

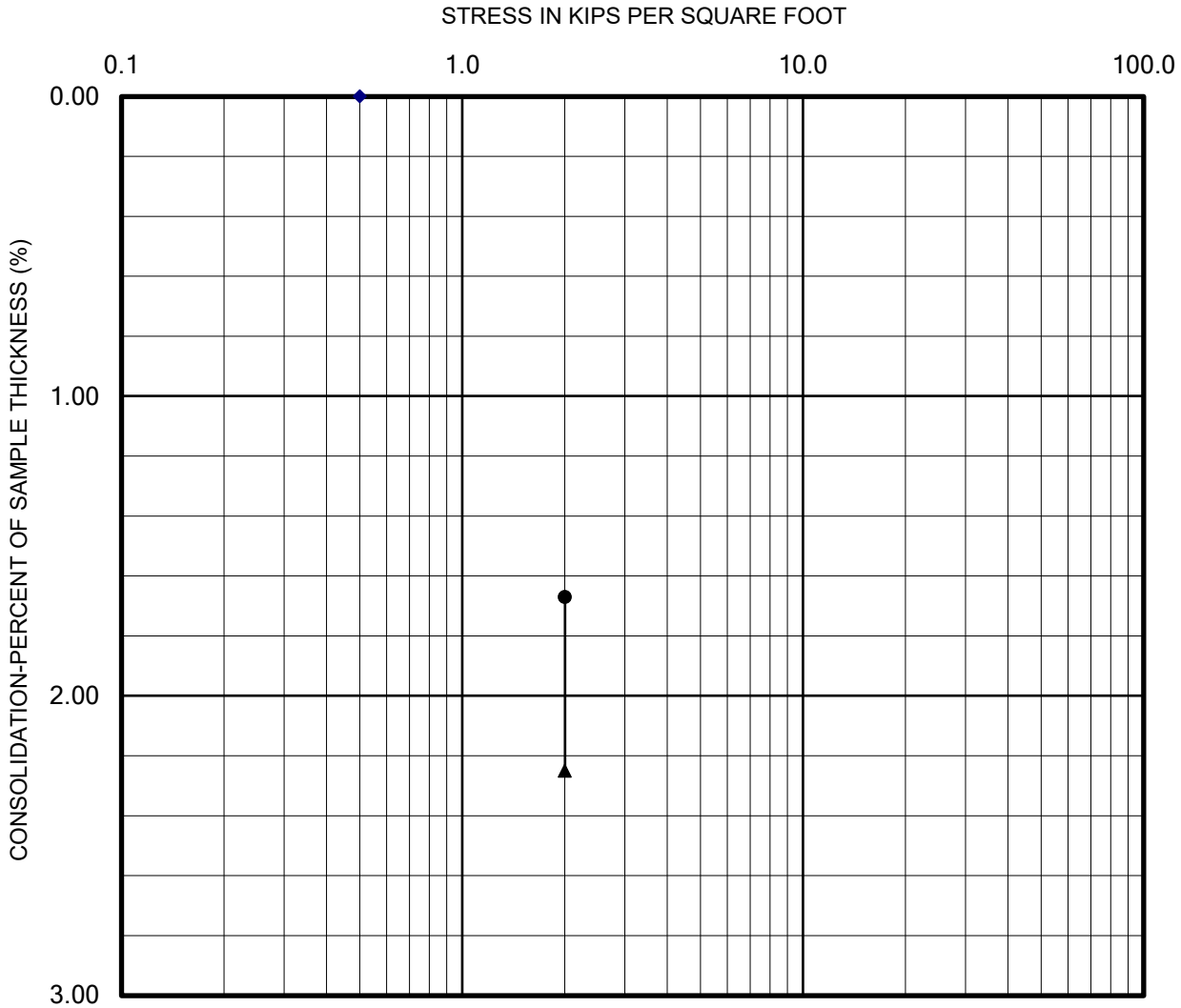
CHECKED BY: RJ	Lab: Corona
PROJECT NO.: 2749-CR	Date: 5-19-21

COLLAPSE REPORT

Sample: B-2 @ 6 feet

Rialto, California

Plate B-1



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

CHECKED BY: RJ	Lab: Corona
PROJECT NO.: 2749-CR	Date: 5-19-21

COLLAPSE REPORT

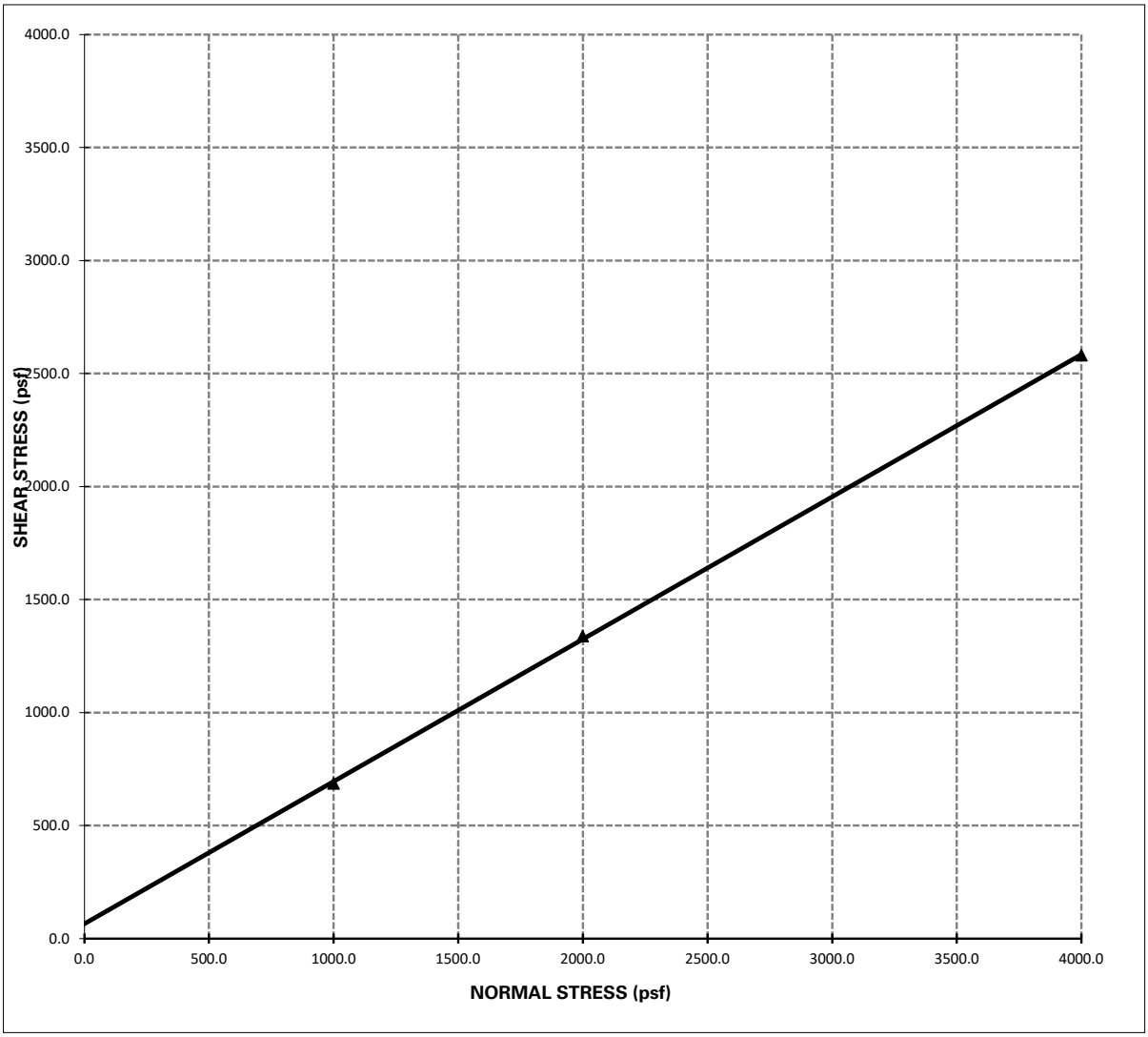
Sample: B-4 @ 6 feet

Rialto, California

Plate B-2

DIRECT SHEAR TEST

Project Name:	Frontier Enterprises	***Sample Location:***	B1 @ 0-5'
Project Number:	2749-CR	***Date Tested:***	5/18/2021



Shear Strength: Φ = 32 ° , C = 65 psf

Notes: 1 - The soil specimen used in the shear box was a ring sample remolded to approximately 90% relative compaction from a bulk sample collected during the field investigation.

2 - The above reflect direct shear strength at saturated conditions.

3 - The tests were run at a shear rate of 0.035 in/min.

GEOTEK

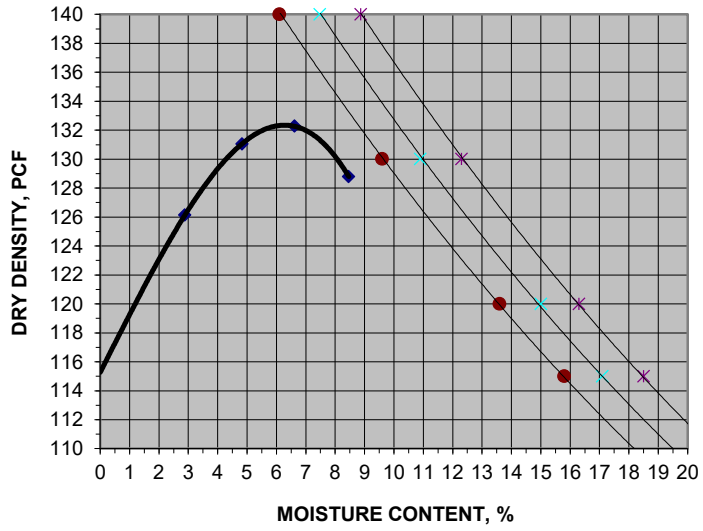
MOISTURE/DENSITY RELATIONSHIP

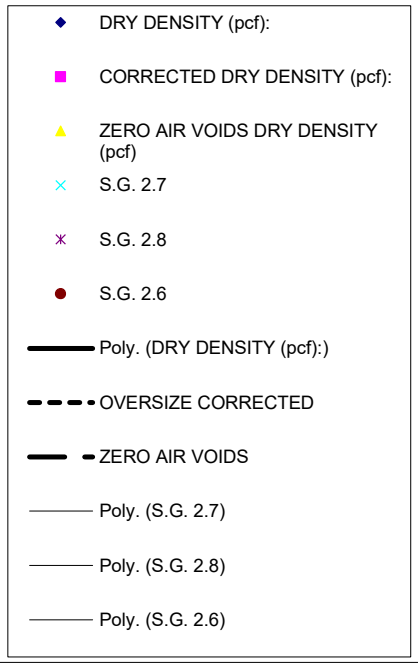
Client:	Frontier Enterprises	**Job No.:**	2749-CR
Project:	N Acacia & Foothill	**Lab No.:**	Corona
Location:	Rialto		
Material Type:	Brown Silty Sand w/ Gravel		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B1 @ 1-5'		
	-		
Sampled By:	FS	**Date Sampled:**	5/5/2021
Received By:	RJ	**Date Received:**	5/5/2021
Tested By:	RL	**Date Tested:**	5/17/2021
Reviewed By:	RJ	**Date Reviewed:**	5/18/2021

Test Procedure: ASTM D1557 **Method:** B

Oversized Material (%): 17.4 **Correction Required:** ■ yes ☐ no

MOISTURE/DENSITY RELATIONSHIP CURVE





MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	132.5	**@ Optimum Moisture, %**	6.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

GEOTEK

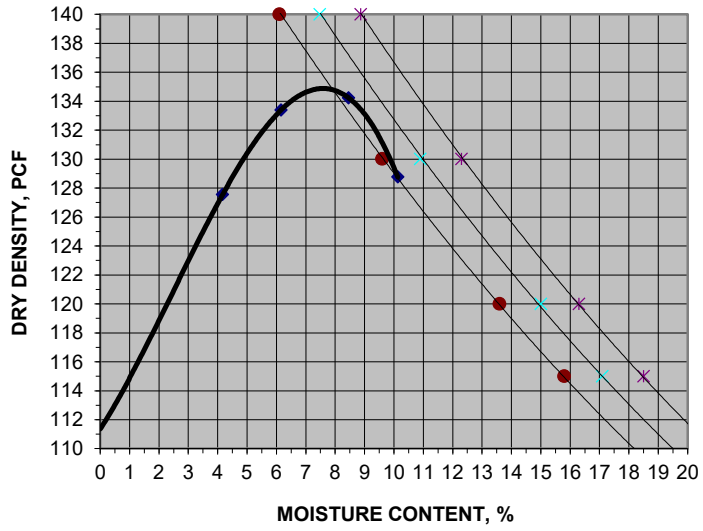
MOISTURE/DENSITY RELATIONSHIP

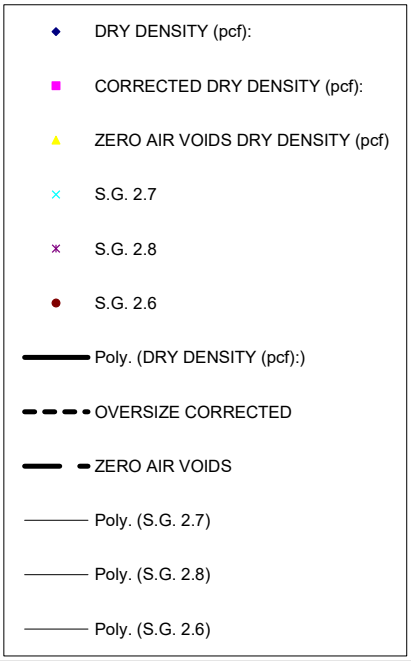
Client:	Frontier Enterprises	**Job No.:**	2749-CR
Project:	N Acacia & Foothill	**Lab No.:**	Corona
Location:	Rialto		
Material Type:	Brown Silty Sand w/ Gravel		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B4 @ 0-5'		
	-		
Sampled By:	FS	**Date Sampled:**	5/5/2021
Received By:	RJ	**Date Received:**	5/5/2021
Tested By:	RL	**Date Tested:**	5/17/2021
Reviewed By:	RJ	**Date Reviewed:**	5/18/2021

Test Procedure: ASTM D1557 **Method:** B

Oversized Material (%): 19.1 **Correction Required:** ■ yes ☐ no

MOISTURE/DENSITY RELATIONSHIP CURVE





MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	135.0	**@ Optimum Moisture, %**	7.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

Results Only Soil Testing for Frontier Enterprises

May 18, 2021
Prepared for:
Anna Scott
GeoTek, Inc.
1548 North Maple Street
Corona, CA 92280
ascott@geotekusa.com

Project X Job#: S210514B
Client Job or PO#: 2749-CR

Respectfully Submitted,



Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com



Soil Analysis Lab Results

Client: GeoTek, Inc.
Job Name: Frontier Enterprises
Client Job Number: 2749-CR
Project X Job Number: S210514B
May 18, 2021

	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM D4972	ASTM G200	SM 4500-S2-D	ASTM D4327	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D4327	ASTM D4327
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**	**Redox**	**Sulfide** S^{2-}	**Nitrate** NO_3^-	**Ammonium** NH_4^+	**Lithium** Li^+	**Sodium** Na^+	**Potassium** K^+	**Magnesium** Mg^{2+}	**Calcium** Ca^{2+}	**Fluoride** F_2^{--}	**Phosphate** PO_4^{3-}
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ohm-cm)	(Ohm-cm)		(mV)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
B-1	0-5	51.9	0.0052	13.5	0.0014	14,740	3,015	7.9	191	<0.01	177.1	9.0	ND	42.2	3.5	41.8	220.5	1.2	4.4
B-4	0-5	17.7	0.0018	5.2	0.0005	57,620	6,700	8.1	170	<0.01	33.2	10.6	0.01	59.5	2.9	30.3	175.2	1.6	3.1

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract
PPM = mg/kg (soil) = mg/L (Liquid)

APPENDIX C

INFILTRATION TEST DATA

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD RIALTO, Job No.: 2749-CR.

Test Hole No.: E Tested By: DVG, Date: 5/3,4/2021.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL 5/3/2021
	742		60	20				BEGIN 5/4/2021
	807	25			6	14		1ST 25 MIN.
	809		60	20				
	834	25			6 1/2	13 1/2		2ND 25 MIN.
	836		60	20				
	906	30			4 1/2	15 1/2		1ST 30 MIN.
	908		60	20				
	938	30			4 3/4	15 1/4		2ND 30 MIN.
	940		60	20				
	1010	30			5	15		3RD 30 MIN.
	1012		60	20				
	1042	30			5 1/2	14 1/2		4TH 30 MIN.
	1044		60	20				
	1114	30			5 3/4	14 1/4		5TH 30 MIN
	1116		60	20				
	1146	30			5 3/4	14 1/4		6TH 30 MIN.
	1148		60	20				
	1218	30			6	14		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO, Job No.: 2749-CR.

Test Hole No.: E, Tested By: DVG, Date: 5/3,4/2021.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	1220		60	20				
	1250	30			6 1/4	13 3/4		8TH 30 MIN.
	1252		60	20				
	122	30			6 1/4	13 3/4		9TH 30 MIN.
	124		60	20				
	154	30			6 1/2	13 1/2		10TH 30 MIN.
	156		60	20				
	226	30			6 1/2	13 1/2		11TH 30 MIN.
	228		60	20				
	258	30			6 1/2	13 1/2		12TH 30 MIN

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO, **Job No.:** 2744-CR

Test Hole No.: W **Tested By:** DVG, **Date:** 5/3, 4/2021

Depth of Hole As Drilled: 60" **Before Test:** 60" **After Test:** 60"

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL
								5/3/2021
	735		60	20				BEGIN 5/4/2021
	800	25			6 1/2	13 1/2		1ST 25 MIN.
	802		60	20				
	827	25			7	13		2ND 25 MIN.
	829		60	20				
	859	30			5	15		1ST 30 MIN.
	901		60	20				
	931	30			5 1/4	14 3/4		2ND 30 MIN.
	933		60	20				
	1003	30			5 1/2	14 1/2		3RD 30 MIN.
	1005		60	20				
	1035	30			5 3/4	14 1/4		4TH 30 MIN.
	1037		60	20				
	1107	30			6	14		5TH 30 MIN.
	1109		60	20				
	1139	30			6	14		6TH 30 MIN.
	1141		60	20				
	1211	30			6 1/4	13 3/4		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO, Job No.: 2749-CR

Test Hole No.: W, Tested By: DVG, Date: 5/3,4/2021

Depth of Hole As Drilled: 60", Before Test: 60", After Test: 60"

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	1213 / 1243	30	60	20	6 1/2	13 1/2		8TH 30 MIN.
	1245 / 115	30	60	20	6 1/2	13 1/2		9TH 30 MIN.
	117 / 147	30	60	20	6 3/4	13 1/4		10TH 30 MIN.
	149 / 219	30	60	20	7	13		11TH 30 MIN.
	221 / 251	30	60	20	7	13		12TH 30 MIN.

Client:	**Frontier Enterprises**
Project:	**Rialto**
Project No:	**2749-CR**
Date:	**5/4/2021**

Boring No. **I-1**

Percolation Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	53.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	6.5
$\Delta H = \Delta D = H_O - H_F$ =	13.5
$H_{avg} = (H_O+H_F)/2$ =	13.25

I_t = 3.54 **Inches per Hour**

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Client:	**Frontier Enterprises**
Project:	**Rialto**
Project No:	**2749-CR**
Date:	**5/4/2021**

Boring No. **I-2**

Percolation Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	53
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	7
$\Delta H = \Delta D = H_O - H_F$ =	13
$H_{avg} = (H_O+H_F)/2$ =	13.5

I_t = 3.35 **Inches per Hour**

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APPENDIX D

SEISMIC SETTLEMENT ANALYSIS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\2701 to 2750\2749CR Frontier Enterprises N Acacia Ave & E Foothill Rialto\Geotechnical and Infiltration Evaluation\seismic input.liq
Title: 2749-CR
Subtitle: Rialto

Surface Elev.=
Hole No.=B-1
Depth of Hole= 50.00 ft
Water Table during Earthquake= 100.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 1.04 g
Earthquake Magnitude= 7.39

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=50.00 ft
Water Table during Earthquake= 100.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=1.04 g
Earthquake Magnitude=7.39
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	34.00	135.00	15.00
7.00	52.00	130.00	15.00
10.00	26.00	130.00	15.00
15.00	30.00	130.00	15.00
20.00	65.00	135.00	15.00
25.00	100.00	135.00	15.00
30.00	100.00	135.00	15.00
35.00	80.00	135.00	15.00
40.00	65.00	135.00	15.00
45.00	19.00	130.00	50.00
50.00	80.00	135.00	15.00

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.98 in.
Total Settlement of Saturated and Unsaturated Sands=0.98 in.
Differential Settlement=0.488 to 0.644 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.52	0.67	5.00	0.00	0.98	0.98
1.00	0.52	0.67	5.00	0.00	0.97	0.97
2.00	0.52	0.67	5.00	0.00	0.97	0.97
3.00	0.52	0.67	5.00	0.00	0.97	0.97
4.00	0.52	0.67	5.00	0.00	0.97	0.97
5.00	0.52	0.67	5.00	0.00	0.96	0.96
6.00	0.52	0.66	5.00	0.00	0.96	0.96
7.00	0.52	0.66	5.00	0.00	0.95	0.95
8.00	0.52	0.66	5.00	0.00	0.94	0.94
9.00	0.52	0.66	5.00	0.00	0.92	0.92
10.00	0.52	0.66	5.00	0.00	0.91	0.91
11.00	0.52	0.66	5.00	0.00	0.89	0.89
12.00	0.52	0.65	5.00	0.00	0.86	0.86
13.00	0.52	0.65	5.00	0.00	0.83	0.83
14.00	0.52	0.65	5.00	0.00	0.79	0.79
15.00	0.52	0.65	5.00	0.00	0.74	0.74
16.00	0.52	0.65	5.00	0.00	0.70	0.70
17.00	0.52	0.65	5.00	0.00	0.66	0.66
18.00	0.52	0.65	5.00	0.00	0.63	0.63
19.00	0.52	0.64	5.00	0.00	0.61	0.61
20.00	0.52	0.64	5.00	0.00	0.60	0.60
21.00	0.52	0.64	5.00	0.00	0.59	0.59
22.00	0.52	0.64	5.00	0.00	0.57	0.57
23.00	0.52	0.64	5.00	0.00	0.56	0.56

24.00	0.52	0.64	5.00	0.00	0.55	0.55
25.00	0.52	0.63	5.00	0.00	0.54	0.54
26.00	0.52	0.63	5.00	0.00	0.52	0.52
27.00	0.51	0.63	5.00	0.00	0.50	0.50
28.00	0.51	0.63	5.00	0.00	0.49	0.49
29.00	0.51	0.63	5.00	0.00	0.47	0.47
30.00	0.50	0.63	5.00	0.00	0.45	0.45
31.00	0.50	0.62	5.00	0.00	0.43	0.43
32.00	0.50	0.62	5.00	0.00	0.41	0.41
33.00	0.50	0.61	5.00	0.00	0.39	0.39
34.00	0.49	0.60	5.00	0.00	0.37	0.37
35.00	0.49	0.60	5.00	0.00	0.35	0.35
36.00	0.49	0.59	5.00	0.00	0.33	0.33
37.00	0.48	0.59	5.00	0.00	0.31	0.31
38.00	0.48	0.58	5.00	0.00	0.30	0.30
39.00	0.48	0.58	5.00	0.00	0.28	0.28
40.00	0.47	0.57	5.00	0.00	0.27	0.27
41.00	0.47	0.57	5.00	0.00	0.25	0.25
42.00	0.47	0.56	5.00	0.00	0.23	0.23
43.00	0.47	0.55	5.00	0.00	0.21	0.21
44.00	0.46	0.55	5.00	0.00	0.18	0.18
45.00	0.33	0.54	5.00	0.00	0.13	0.13
46.00	0.46	0.54	5.00	0.00	0.08	0.08
47.00	0.46	0.53	5.00	0.00	0.05	0.05
48.00	0.45	0.53	5.00	0.00	0.03	0.03
49.00	0.45	0.52	5.00	0.00	0.02	0.02
50.00	0.45	0.52	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

APPENDIX E

GENERAL GRADING GUIDELINES

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

GENERAL GRADING GUIDELINES

Guidelines presented herein are intended to address general construction procedures for earthwork construction. Specific situations and conditions often arise which cannot reasonably be discussed in general guidelines, when anticipated these are discussed in the text of the report. Often unanticipated conditions are encountered which may necessitate modification or changes to these guidelines. It is our hope that these will assist the contractor to more efficiently complete the project by providing a reasonable understanding of the procedures that would be expected during earthwork and the testing and observation used to evaluate those procedures.

General

Grading should be performed to at least the minimum requirements of governing agencies, Chapters 18 and 33 of the Uniform Building Code, CBC (2019) and the guidelines presented below.

Preconstruction Meeting

A preconstruction meeting should be held prior to site earthwork. Any questions the contractor has regarding our recommendations, general site conditions, apparent discrepancies between reported and actual conditions and/or differences in procedures the contractor intends to use should be brought up at that meeting. The contractor (including the main onsite representative) should review our report and these guidelines in advance of the meeting. Any comments the contractor may have regarding these guidelines should be brought up at that meeting.

Grading Observation and Testing

1. Observation of the fill placement should be provided by our representative during grading. Verbal communication during the course of each day will be used to inform the contractor of test results. The contractor should receive a copy of the "Daily Field Report" indicating results of field density tests that day. If our representative does not provide the contractor with these reports, our office should be notified.
2. Testing and observation procedures are, by their nature, specific to the work or area observed and location of the tests taken, variability may occur in other locations. The contractor is responsible for the uniformity of the grading operations; our observations and test results are intended to evaluate the contractor's overall level of efforts during grading. The contractor's personnel are the only individuals participating in all aspect of site work. Compaction testing and observation should not be considered as relieving the contractor's responsibility to properly compact the fill.
3. Cleanouts, processed ground to receive fill, key excavations, and subdrains should be observed by our representative prior to placing any fill. It will be the contractor's responsibility to notify our representative or office when such areas are ready for observation.

4. Density tests may be made on the surface material to receive fill, as considered warranted by this firm.
5. In general, density tests would be made at maximum intervals of two feet of fill height or every 1,000 cubic yards of fill placed. Criteria will vary depending on soil conditions and size of the fill. More frequent testing may be performed. In any case, an adequate number of field density tests should be made to evaluate the required compaction and moisture content is generally being obtained.
6. Laboratory testing to support field test procedures will be performed, as considered warranted, based on conditions encountered (e.g. change of material sources, types, etc.) Every effort will be made to process samples in the laboratory as quickly as possible and in progress construction projects are our first priority. However, laboratory workloads may cause in delays and some soils may require a **minimum of 48 to 72 hours to complete test procedures**. Whenever possible, our representative(s) should be informed in advance of operational changes that might result in different source areas for materials.
7. Procedures for testing of fill slopes are as follows:
   a) Density tests should be taken periodically during grading on the flat surface of the fill, three to five feet horizontally from the face of the slope.
   b) If a method other than over building and cutting back to the compacted core is to be employed, slope compaction testing during construction should include testing the outer six inches to three feet in the slope face to determine if the required compaction is being achieved.
8. Finish grade testing of slopes and pad surfaces should be performed after construction is complete.

Site Clearing

1. All vegetation, and other deleterious materials, should be removed from the site. If material is not immediately removed from the site it should be stockpiled in a designated area(s) well outside of all current work areas and delineated with flagging or other means. Site clearing should be performed in advance of any grading in a specific area.
2. Efforts should be made by the contractor to remove all organic or other deleterious material from the fill, as even the most diligent efforts may result in the incorporation of some materials. This is especially important when grading is occurring near the natural grade. All equipment operators should be aware of these efforts. Laborers may be required as root pickers.
3. Nonorganic debris or concrete may be placed in deeper fill areas provided the procedures used are observed and found acceptable by our representative.

Treatment of Existing Ground

1. Following site clearing, all surficial deposits of alluvium and colluvium as well as weathered or creep effected bedrock, should be removed unless otherwise specifically indicated in the text of this report.
2. In some cases, removal may be recommended to a specified depth (e.g. flat sites where partial alluvial removals may be sufficient). The contractor should not exceed these depths unless directed otherwise by our representative.
3. Groundwater existing in alluvial areas may make excavation difficult. Deeper removals than indicated in the text of the report may be necessary due to saturation during winter months.
4. Subsequent to removals, the natural ground should be processed to a depth of six inches, moistened to near optimum moisture conditions and compacted to fill standards.
5. Exploratory back hoe or dozer trenches still remaining after site removal should be excavated and filled with compacted fill if they can be located.

Fill Placement

1. Unless otherwise indicated, all site soil and bedrock may be reused for compacted fill; however, some special processing or handling may be required (see text of report).
2. Material used in the compacting process should be evenly spread, moisture conditioned, processed, and compacted in thin lifts six (6) to eight (8) inches in compacted thickness to obtain a uniformly dense layer. The fill should be placed and compacted on a nearly horizontal plane, unless otherwise found acceptable by our representative.
3. If the moisture content or relative density varies from that recommended by this firm, the contractor should rework the fill until it is in accordance with the following:
    a) Moisture content of the fill should be at or above optimum moisture. Moisture should be evenly distributed without wet and dry pockets. Pre-watering of cut or removal areas should be considered in addition to watering during fill placement, particularly in clay or dry surficial soils. The ability of the contractor to obtain the proper moisture content will control production rates.
    b) Each six-inch layer should be compacted to at least 90 percent of the maximum dry density in compliance with the testing method specified by the controlling governmental agency. In most cases, the testing method is ASTM Test Designation D 1557.
4. Rock fragments less than eight inches in diameter may be utilized in the fill, provided:
    a) They are not placed in concentrated pockets;
    b) There is a sufficient percentage of fine-grained material to surround the rocks;
    c) The distribution of the rocks is observed by, and acceptable to, our representative.

5. Rocks exceeding eight (8) inches in diameter should be taken off site, broken into smaller fragments, or placed in accordance with recommendations of this firm in areas designated suitable for rock disposal. On projects where significant large quantities of oversized materials are anticipated, alternate guidelines for placement may be included. If significant oversize materials are encountered during construction, these guidelines should be requested.
6. In clay soil, dry or large chunks or blocks are common. If in excess of eight (8) inches minimum dimension, then they are considered as oversized. Sheepsfoot compactors or other suitable methods should be used to break up blocks. When dry, they should be moisture conditioned to provide a uniform condition with the surrounding fill.

Slope Construction

1. The contractor should obtain a minimum relative compaction of 90 percent out to the finished slope face of fill slopes. This may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment.
2. Slopes trimmed to the compacted core should be overbuilt by at least three (3) feet with compaction efforts out to the edge of the false slope. Failure to properly compact the outer edge results in trimming not exposing the compacted core and additional compaction after trimming may be necessary.
3. If fill slopes are built "at grade" using direct compaction methods, then the slope construction should be performed so that a constant gradient is maintained throughout construction. Soil should not be "spilled" over the slope face nor should slopes be "pushed out" to obtain grades. Compaction equipment should compact each lift along the immediate top of slope. Slopes should be back rolled or otherwise compacted at approximately every 4 feet vertically as the slope is built.
4. Corners and bends in slopes should have special attention during construction as these are the most difficult areas to obtain proper compaction.
5. Cut slopes should be cut to the finished surface. Excessive undercutting and smoothing of the face with fill may necessitate stabilization.

UTILITY TRENCH CONSTRUCTION AND BACKFILL

Utility trench excavation and backfill is the contractors responsibility. The geotechnical consultant typically provides periodic observation and testing of these operations. While efforts are made to make sufficient observations and tests to verify that the contractors' methods and procedures are adequate to achieve proper compaction, it is typically impractical to observe all backfill procedures. As such, it is critical that the contractor use consistent backfill procedures.

Compaction methods vary for trench compaction and experience indicates many methods can be successful. However, procedures that "worked" on previous projects may or may not prove effective on a given site. The contractor(s) should outline the procedures proposed, so that we may discuss them **prior** to construction. We will offer comments based on our knowledge of site conditions and experience.

1. Utility trench backfill in slopes, structural areas, in streets and beneath flat work or hardscape should be brought to at least optimum moisture and compacted to at least 90 percent of the laboratory standard. Soil should be moisture conditioned prior to placing in the trench.
2. Flooding and jetting are not typically recommended or acceptable for native soils. Flooding or jetting may be used with select sand having a Sand Equivalent (SE) of 30 or higher. This is typically limited to the following uses:
   a) shallow (12 + inches) under slab interior trenches and,
   b) as bedding in pipe zone.

   The water should be allowed to dissipate prior to pouring slabs or completing trench compaction.
3. Care should be taken not to place soils at high moisture content within the upper three feet of the trench backfill in street areas, as overly wet soils may impact subgrade preparation. Moisture may be reduced to 2% below optimum moisture in areas to be paved within the upper three feet below sub grade.
4. Sand backfill should not be allowed in exterior trenches adjacent to and within an area extending below a 1:1 projection from the outside bottom edge of a footing, unless it is similar to the surrounding soil.
5. Trench compaction testing is generally at the discretion of the geotechnical consultant. Testing frequency will be based on trench depth and the contractors procedures. A probing rod would be used to assess the consistency of compaction between tested areas and untested areas. If zones are found that are considered less compact than other areas, this would be brought to the contractors attention.

JOB SAFETY

General

Personnel safety is a primary concern on all job sites. The following summaries are safety considerations for use by all our employees on multi-employer construction sites. On ground personnel are at highest risk of injury and possible fatality on grading construction projects. The company recognizes that construction activities will vary on each site and that job site safety is the contractor's responsibility. However, it is, imperative that all personnel be safety conscious to avoid accidents and potential injury.

In an effort to minimize risks associated with geotechnical testing and observation, the following precautions are to be implemented for the safety of our field personnel on grading and construction projects.

1. Safety Meetings: Our field personnel are directed to attend the contractor's regularly scheduled safety meetings.
2. Safety Vests: Safety vests are provided for and are to be worn by our personnel while on the job site.
3. Safety Flags: Safety flags are provided to our field technicians; one is to be affixed to the vehicle when on site, the other is to be placed atop the spoil pile on all test pits.

In the event that the contractor's representative observes any of our personnel not following the above, we request that it be brought to the attention of our office.

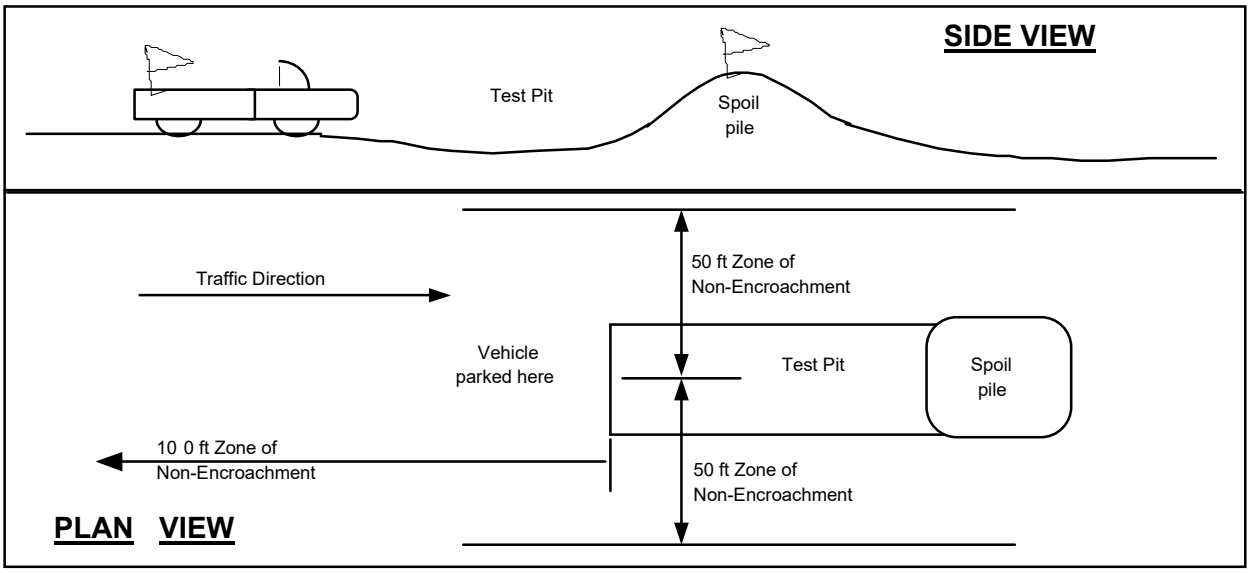
Test Pits Location, Orientation and Clearance

The technician is responsible for selecting test pit locations. The primary concern is the technician's safety. However, it is necessary to take sufficient tests at various locations to obtain a representative sampling of the fill. As such, efforts will be made to coordinate locations with the grading contractors authorized representatives (e.g. dump man, operator, supervisor, grade checker, etc.), and to select locations following or behind the established traffic pattern, preferably outside of current traffic. The contractors authorized representative should direct excavation of the pit and safety during the test period. Again, safety is the paramount concern.

Test pits should be excavated so that the spoil pile is placed away from oncoming traffic. The technician's vehicle is to be placed next to the test pit, opposite the spoil pile. This necessitates that the fill be maintained in a drivable condition. Alternatively, the contractor may opt to park a piece of equipment in front of test pits, particularly in small fill areas or those with limited access.

A zone of non-encroachment should be established for all test pits (see diagram below). No grading equipment should enter this zone during the test procedure. The zone should extend outward to the sides approximately 50 feet from the center of the test pit and 100 feet in the direction of traffic flow. This zone is established both for safety and to avoid excessive ground vibration, which typically decreases test results.

TEST PIT SAFETY PLAN



Slope Tests

When taking slope tests, the technician should park their vehicle directly above or below the test location on the slope. The contractor's representative should effectively keep all equipment at a safe operation distance (e.g. 50 feet) away from the slope during testing.

The technician is directed to withdraw from the active portion of the fill as soon as possible following testing. The technician's vehicle should be parked at the perimeter of the fill in a highly visible location.

Trench Safety

It is the contractor's responsibility to provide safe access into trenches where compaction testing is needed. Trenches for all utilities should be excavated in accordance with CAL-OSHA and any other applicable safety standards. Safe conditions will be required to enable compaction testing of the trench backfill.

All utility trench excavations in excess of 5 feet deep, which a person enters, are to be shored or laid back. Trench access should be provided in accordance with OSHA standards. Our personnel are directed not to enter any trench by being lowered or "riding down" on the equipment.

Our personnel are directed not to enter any excavation which;

1. is 5 feet or deeper unless shored or laid back,
2. exit points or ladders are not provided,
3. displays any evidence of instability, has any loose rock or other debris which could fall into the trench, or

4. displays any other evidence of any unsafe conditions regardless of depth.

If the contractor fails to provide safe access to trenches for compaction testing, our company policy requires that the soil technician withdraws and notifies their supervisor. The contractors representative will then be contacted in an effort to effect a solution. All backfill not tested due to safety concerns or other reasons is subject to reprocessing and/or removal.

Procedures

In the event that the technician's safety is jeopardized or compromised as a result of the contractor's failure to comply with any of the above, the technician is directed to inform both the developer's and contractor's representatives. If the condition is not rectified, the technician is required, by company policy, to immediately withdraw and notify their supervisor. The contractor's representative will then be contacted in an effort to effect a solution. No further testing will be performed until the situation is rectified. Any fill placed in the interim can be considered unacceptable and subject to reprocessing, recompaction or removal.

In the event that the soil technician does not comply with the above or other established safety guidelines, we request that the contractor bring this to technicians attention and notify our project manager or office. Effective communication and coordination between the contractors' representative and the field technician(s) is strongly encouraged in order to implement the above safety program and safety in general.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

Appendix E

Phase I and Limited Phase II Environmental Site Assessment

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
ASSESSOR'S PARCEL NUMBERS (APNS) 0133-171-07, -08, -09 AND -31
RIALTO, SAN BERNARDINO COUNTY, CALIFORNIA 92376

April 29, 2021

Project No. 2749-CR

Prepared For:

Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764

GEOTEK

GeoTek, Inc.
1548 North Maple Street, Corona, California 92878
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

April 29, 2021
Project No. 2749-CR

Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764

Attention: Mr. Tim Nguyen

Subject: Phase I and Limited Phase II Environmental Site Assessment
Assessor's Parcel Numbers (APNs) 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California 92376

Dear Mr. Nguyen:

GEOTEK, INC. (GEOTEK) is pleased to present this Phase I and Limited Phase II Environmental Site Assessment for the above-referenced subject Site. Services were conducted in substantial conformance with the scope and limitations of the American Society of Testing and Materials E 1527-13, "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,*" which is approved to meet the requirements of the federal All Appropriate Inquiries (AAI) standards as set forth in the Code of Federal Regulations, Title 40, Section 312 (40 CFR 312), and GEOTEK'S Proposal No. P-0408021-CR, dated April 22, 2021.

This Phase I and Limited Phase II Environmental Site Assessment has not revealed evidence of a recognized environmental condition or concern in connection with the subject Site. No further investigation is recommended.

We appreciate this opportunity to be of service. If you have any questions, or if we can be of further service, please contact us at (951) 710-1160.

Sincerely,
GEOTEK, INC.



Edward H. LaMont
Principal Geologist, CEG 1892
Expires 07/31/2022

J. Michael Batten, CEM, REPA
Environmental Services Manager
Registered Environmental Property Assessor No. 113162
Expires 06/15/2021

Anna M. Scott
Project Geologist

Gabriela Pocius
Staff Geologist

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1.0 EXECUTIVE SUMMARY

GEOTEK, INC. (GEOTEK) has performed a Phase I and Limited Phase II Environmental Site Assessment (ESA) for the subject property: APNs 0133-171-07, -08, -09 and -31 (the "Site"), located in Rialto, San Bernardino County, California. Our services were conducted in substantial conformance with the scope and limitations of the American Society of Testing and Materials (ASTM) E 1527-13, "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*", which is approved to meet the requirements of the federal All Appropriate Inquiries (AAI) standards as set forth in the Code of Federal Regulations, Title 40, Section 312 (40 CFR 312), and GEOTEK Proposal No. P-0408021-CR, dated April 22, 2021. Any additions or deletions from our scope of services are discussed in the appropriate sections of this assessment.

A representative of GEOTEK conducted a Site reconnaissance on April 26, 2021. The weather was cool and the sky was cloudy. The irregular shaped Site is currently comprised of four (4) parcels of land (San Bernardino County APNs 0133-171-07, -08, -09 and -31) and encompasses a total of approximately eight (8) acres. The Site can generally be accessed from East Foothill Boulevard.

The Site is currently vacant land. Visual evidence of hazardous substances and wastes were not observed during our Site reconnaissance. No visual indication of spills or leaks were observed. No pungent or acrid odors were observed emanating from the Site.

The Site is in an area largely characterized by residential and commercial development. The Site is bounded by vacant land and residential structures to the north; residential structures to the west; East Foothill Boulevard to the south, followed by a shopping center; and an automotive sales facility (ACME Auto Sales located at 612 East Foothill Boulevard) and residential structures to the east.

Based on readily available historic information, the Site appears to have been land utilized for agriculture from at least 1930 through at least 1953. The Site was cleared of agriculture in an aerial photograph dated 1959. Structures can be observed in the southern portion of the Site from at least 1949 through at least 2006. The Site appears to be vacant land in aerial photographs dated 2009 and 2012. Grading (earthwork construction) can be observed on the Site in an aerial photograph dated 2016. The surrounding properties appear to historically have been land utilized for agriculture from at least 1930 through at least 1953. A drive-in theater to the south of the Site can be observed from at least 1949 through at least 1985. The residential structures to the west and east can first be observed in an aerial photograph dated 1953. The residential structures to the north can first be observed in an aerial photograph dated 1966. The shopping center to the south can be observed from at least 1995 to the present day.

Based on the available information, no recognized environmental conditions were identified from the historic data.

Historically, some agricultural sites have utilized pesticides that are currently considered a health risk and no longer used. This particular environmental concern was investigated by GEOTEK as part of this assessment. Near surface soil samples were collected from the Site and were analyzed for organo-chlorinated pesticides (EPA Method 8081). The laboratory testing concluded that organo-chlorinated pesticides were not detected above regional screening levels in the soil samples tested. Based on this laboratory testing, it is our opinion that the historical agricultural use on the subject Site is not considered an environmental concern.

The Site appears on the environmental database report obtained for this assessment. The Site is listed with Facility Index System/Facility Registry System (FINDS), National Pollutant Discharge Elimination System (NPDES), California Integrated Water Quality System (CIWQS), CalEPA Regulated Site Portal (CERS) and Enforcement and Compliance History Information (ECHO). These listings are associated with the former earthwork construction on the Site and are not considered an environmental concern to the Site.

There are no adjacent facilities on the environmental database report obtained for this assessment. There are 19 facilities listed on the database report within the various search distances specified by ASTM E 1527-13. Due to their status, distances, and/or locations, it is our opinion that these facilities do not represent an environmental concern to the Site.

This Phase I and Limited Phase II Environmental Site Assessment has not revealed evidence of a recognized environmental condition or concern in connection with the subject Site. No further investigation is recommended.

This executive summary does not contain all the information that is found in the full report. The report should be read in its entirety to obtain a more complete understanding of the information provided and to aid in any decisions made or actions taken based on this information.

2.0 INTRODUCTION

GEOTEK, INC. (GEOTEK) has performed a Phase I and Limited Phase II Environmental Site Assessment (ESA) for APNs 0133-171-07, -08, -09 and -31 (the "Site"), located in Rialto, San Bernardino County, California.

2.1 PURPOSE

The purpose of this Phase I and Limited Phase II ESA was to identify and evaluate actual and potential environmental conditions involving the subject Site. It was not the purpose of this assessment to determine the degree or extent of contamination, if any, but rather the potential for contamination.

2.2 SCOPE OF WORK

The Phase I and Limited Phase II ESA is a general characterization of environmental concerns based on reasonably ascertainable information and observations. GEOTEK performed the Phase I and Limited Phase II ESA in substantial accordance with ASTM E 1527-13. The following services were provided for the assessment:

- A reconnaissance of the Site and surrounding properties to visually assess current utilization and indications of potential surface contamination. This was accomplished by driving the Site boundaries, and then traversing the Site until the entire Site had been surveyed.

- A reconnaissance of the surrounding area for approximately one-half mile was conducted, without entering the properties, making observations concerning property uses, conditions, and housekeeping.

- A review of the geologic and hydro-geologic settings was conducted using reasonably ascertainable public records and documents.

- An environmental database report was obtained from a data service provider. This database report compiles and locates documented "hazardous waste" facilities within specific minimum search distances as defined by ASTM E 1527-13. If necessary, additional information on identified facilities was gathered by a file review at the appropriate federal, state, local, and/or tribal regulatory agency.

- A review of reasonably ascertainable historical records (including aerial photographs, topographic maps, building records, environmental liens and activity and use limitations reports and city directories) was conducted to assess the historical land utilization and indications of potential contamination or sources of contamination for the Site.

- This report was prepared, which relates the findings of this study and presents our conclusions and recommendations.

Specific items not included in this Scope of Services are soil analysis, water analysis, asbestos containing materials analysis, radon analysis, lead-based paint analysis, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, vapor intrusion testing, high voltage power lines, and other items not within the scope of ASTM E 1527-13.

2.3 SIGNIFICANT ASSUMPTIONS

Specific assumptions by GEOTEK for this assessment include:

- GEOTEK had permission to access the Site grounds;

- The client has provided GEOTEK with available geotechnical or environmental reports for the Site;

- The client has provided GEOTEK with known current or historic uses of hazardous materials at the Site, or with other specialized knowledge of the environmental history of the Site and surrounding area;

- The client is not the sole and absolute source of information;

- Seller has provided proper and complete access to their knowledge, both written and verbal, and GEOTEK can rely on the information.

2.4 LIMITATIONS AND EXCEPTIONS

GEOTEK conducted a Phase I and Limited Phase II Environmental Site Assessment in substantial accordance with ASTM E 1527-13 and as authorized by Frontier Enterprises. This study does not include sampling of soil, groundwater and/or materials on-site for environmental testing. This report is intended for the use of Frontier Enterprises. The contents should not be relied

upon by any party other than the aforementioned without the express written consent of GEOTEK.

The findings, conclusions, and recommendations made in this report are based on the information that was made available to GEOTEK, in most instances from public records. The information is relevant to the date of our site work and should not be relied on to represent conditions at any later date. The opinions and conclusions expressed herein are based on information obtained during our assessment and on our experience and current standards of technical practice. GEOTEK makes no other warranties, either express or implied, concerning the completeness of the data furnished to us. GEOTEK cannot be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time our assessment was undertaken. GEOTEK is not responsible, nor liable for work, testing or recommendations performed or provided by others. This Phase I and Limited Phase II Environmental Site Assessment is not and should not be construed as a warranty or guarantee about the presence or absence of environmental hazards or contaminants, which may affect the subject site. Facts, conditions, and acceptable risk factors change with time; accordingly, this report should be viewed within this context.

Specific limitations to the scope of ASTM E 1527-13 due to contract limitations, availability of resources, and/or encountered Site conditions are discussed in the appropriate section(s) of this report.

2.5 SPECIAL TERMS AND CONDITIONS

This assessment report is presented as fulfilling the standard requirements of most financial institutions, governmental regulatory agencies, ASTM, and generally accepted industry standards and practices. Please refer to GEOTEK Proposal No. P-0408021-CR for complete terms and conditions for this assessment.

2.6 RELIANCE

This assessment has been prepared for the exclusive use and may be relied upon by Frontier Enterprises and their successors and assignees. Third party reliance letters may be issued upon request and upon the payment of the, then current, fee for such letters. All third parties relying on this report, by such reliance, agree to be bound by the General Conditions and Limitations agreed to Frontier Enterprises. No reliance by any party is permitted without such agreement, regardless of the content of the reliance letter itself.

3.0 DESCRIPTION OF SITE AND SURROUNDING AREA

The objective of describing the Site and surrounding area is to document current conditions as observed and to obtain information which would indicate the likelihood of a recognized environmental condition in connection with the Site. A representative of GEOTEK conducted a Site reconnaissance on April 26, 2021. The weather was cool and the sky was cloudy. The Site can generally be accessed from East Foothill Boulevard.

3.1 SITE LOCATION AND LEGAL DESCRIPTION

The Site is located northeasterly of the intersection of North Acacia Avenue and East Foothill Boulevard and is addressed as 534 East Foothill Boulevard in the city of Rialto, San Bernardino County, California. According to the U.S. Geological Survey (USGS) Devore, Fontana, San Bernardino North and San Bernardino South topographic map sheets (7.5-minute series), the Site is located in Section 1, Township 1 South, Range 5 West, San Bernardino Meridian (see Figure 1 in Appendix A and documents in Appendix B). The Site is also known as San Bernardino County Assessor's Parcel Numbers (APNs) 0133-171-07, -08, -09 and -31. Additional legal descriptions for the Site are included in the *Preliminary Report* (Orange Coast Title Company, 2021) in Appendix B of this report.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The Site is currently vacant land. The Site is in an area largely characterized by residential and commercial development.

3.3 CURRENT PROPERTY USE

The Site is currently vacant land.

3.4 SITE IMPROVEMENTS

The Site is currently vacant land. Photographs of the Site are included in Appendix C.

3.4.1 HAZARDOUS SUBSTANCES

Visual evidence of hazardous substances and wastes were not observed during our Site reconnaissance. No visual indication of spills or leaks were observed. No pungent or acrid odors were observed emanating from the Site.

3.4.2 Storage Tanks

GeoTek did not observe evidence of underground or above-ground fuel storage tanks (such as vent pipes, fill pipes, regular-shaped depressions, etc.) on the Site.

3.4.3 Poly-Chlorinated Biphenyls (PCBs)

GeoTek did not observe suspect equipment (transformers, elevators, hydraulic lift mechanisms, trash compactors, etc.) which may contain PCBs on the Site.

3.4.4 Controlled Substances

GeoTek consulted the U.S. Drug Enforcement Agency (DEA) website to cross-check the Site address against published facilities subject to DEA enforcement. The Site did not appear on the list of published facilities, based on the names of the cross streets. A copy of the DEA printout is included in Appendix B.

GeoTek did not observe evidence of illegal or controlled substances being used or manufactured at the Site.

3.4.5 Indications of Solid Waste Disposal

GeoTek did not observe visual indications of waste disposal at the Site. Waste disposal for the Site and Site area is provided by Burrtec Disposal.

3.4.6 Utility Supply

GeoTek observed utility services at the Site and vicinity. Water and sewer services for the Site and area are provided by Rialto Water Services. Electric services for the Site and area are provided by Southern California Edison. Gas services for the Site and area are provided by Southern California Gas Company.

3.4.7 Drainage

Natural drainage at the Site is generally interpreted to be toward the southeast, conforming to the natural topography in the area. Ponded water was not observed during our Site reconnaissance.

3.4.8 Other Conditions of Concern

No visual indication of other conditions of concern (water wells, drywells, cesspools, etc.) that would indicate a recognized environmental condition was observed during the Site reconnaissance.

3.4.9 Interviews

GeoTek interviewed the following individuals while performing this assessment, in the form of completing a *User Questionnaire*:

- Mr. Daniel Pocius (a representative for the future Site owner) completed a User Questionnaire.

Information from this interview is incorporated into the appropriate sections of this report.

3.5 Current Adjoining Property Use

The Site is in an area largely characterized by residential and commercial development. The Site is bounded by vacant land and residential structures to the north; residential structures to the west; East Foothill Boulevard to the south, followed by a shopping center; and an automotive sales facility (ACME Auto Sales located at 612 East Foothill Boulevard) and residential structures to the east.

4.0 CLIENT PROVIDED INFORMATION

As a form of interview, Mr. Daniel Pocius, a representative of the future Site owner, completed a "User Questionnaire" for the Site in accordance with ASTM E 1527-13. A copy of the completed questionnaire is included in Appendix B.

4.1 Environmental Clean Up Liens

Mr. Pocius is not aware of any environmental clean-up liens at the Site.

4.2 Activity and Use Limitations

Mr. Pocius is not aware of any activity use limitations at the Site.

4.3 Specialized Knowledge

Mr. Pocius is not aware of any specialized knowledge of the Site or nearby properties.

4.4 Purchase Price

Mr. Pocius states that the purchase price being paid for the property reasonably reflects the fair market value of the property.

4.5 Commonly Known Information

Mr. Pocius states that he is not aware of commonly known or reasonably ascertainable information for the Site.

4.6 Obvious Indicators of Contamination

Mr. Pocius states that he is not aware of obvious indicators of a likely environmental impact at the Site.

4.7 Owner, Property Manager and Occupant Information

Behzad Yasmeh and Mitra Mishael, husband and wife as joint tenants, currently own and manage the Site. The Site is currently vacant land.

4.8 Reason for Performing Phase I ESA

This Phase I and Limited Phase II ESA was performed at the request of Frontier Enterprises as part of their due diligence for possible future improvements on the Site.

4.9 Other User Provided Information

GeoTek was not provided with any other information for the Site by Frontier Enterprises.

5.0 PROPERTY PHYSICAL SETTING

Surface and subsurface environments are of interest because they control the movement of water-born contaminants, which could be transported to and from the subject Site. GEOTEK reviewed information regarding the physical setting of the subject Site and immediately surrounding area.

5.1 REGIONAL GEOLOGY

The property is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends from the point of contact with the Transverse Ranges geomorphic province, southerly to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

5.2 LOCAL GEOLOGIC SETTING AND TOPOGRAPHY

The Site and Site area are understood to be underlain by alluvium (Dibblee, T.W. and Minch, J.A., 2004). Additional data regarding soil survey information for the Site and Site area is also included in Appendix B.

The Site and Site area can be considered as having relatively flat terrain. Based on the USGS topographic map for the area and other documents reviewed for this report, the elevation of the subject Site ranges from approximately 1,232 to 1,245 feet above mean sea level.

5.3 VICINITY SURFACE DRAINAGE

Natural drainage at the Site is interpreted to be dominantly directed toward the southeast, conforming to the natural topography in the area. Storm water runoff does not appear to drain towards the Site from the adjacent properties due to existing streets and/or improvements.

According to the Federal Emergency Management Agency (FEMA), the Site is in an area of minimal flood hazard (Community Panel Number 06071C-8676J, dated September 2, 2016). A copy of the FEMA map is included in Appendix B.

5.4 HYDROGEOLOGY

According to a review of historical groundwater data (California Department of Water Resources and California State Water Resources Control Board groundwater well data [http://wdl.water.ca.gov and http://geotracker.waterboards.ca.gov]) and in-house information, groundwater is approximately 280 feet below ground surface, with a flow estimated to be directed to the southeast.

6.0 ENVIRONMENTAL REGULATORY RECORDS REVIEW

The records review is conducted to help identify known recognized environmental conditions at the Site and/or on adjacent or nearby properties which may have impacted the subject Site.

6.1 ENVIRONMENTAL DATABASE RECORDS SEARCH

GEOTEK obtained and reviewed an environmental database report of the federal and state environmental records specified by ASTM E 1527-13. The database report was provided by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut. Additionally, orphan or un-mappable sites listed by EDR were reviewed for the approximate minimum search distances noted and included in our discussion, if applicable. Refer to Appendix D for a copy of the database report.

ENVIRONMENTAL DATABASE	MINIMUM SEARCH DISTANCE	SITE	ADJACENT	TOTAL LISTED
U.S. Environmental Protection Agency (EPA) - National Priorities List (NPL), including delisted NPL	1.0 Mile	No	0	0
EPA – Superfund Enterprise Management System (SEMS), including archived sites (formerly CERCLIS)	0.5 Mile	No	0	0
EPA – Resource Conservation and Recovery Act (RCRA), Corrective Action Facilities (CORRACTS)	1.0 Mile	No	0	0
EPA – RCRA, Transportation, Storage, and Disposal facilities (TSD)	0.5 Mile	No	0	0
EPA - RCRA Generators	Site and Adjacent	No	0	5
EPA – Emergency Response Notification System (ERNS)	Site	No	N/A	0
Federal institutional control/engineering control registries	Site	No	0	0
California Environmental Protection Agency (CEPA) – State Response Sites (Response, formerly Annual Work Plan and Bond Expenditure Plan)	1.0 Mile	No	0	0

ENVIRONMENTAL DATABASE	MINIMUM SEARCH DISTANCE	SITE	ADJACENT	TOTAL LISTED
CEPA – EnviroStor Database (formerly CALSITES)	0.5 Mile	No	0	1
CEPA – CHMIRS - California Hazardous Materials Information Reporting System	Site	No	0	0
CEPA - Solid Waste Fill/Landfill (SWF/LF), Solid Waste Assessment Test (SWAT)/Waste Management Unit Database System (WMUDS) and Recycling Facilities (SWRCY)	0.5 Mile	No	0	1
CEPA – Leaking Underground Storage Tanks (LUST)	0.5 Mile	No	0	6
CEPA – Underground Storage Tanks (UST), including historic USTs	Site and Adjacent	No	0	4
CEPA – Spills, Leaks, Investigations & Cleanup Cost Recovery Listing (SLIC)	0.5 Mile	No	0	0
State institutional control/engineering control registries	Site	No	N/A	0
Local and/or Tribal databases	Up To 1.0 Mile	No	0	0
Drycleaners	0.25 Mile	No	0	2
Other databases	Up to 1.0 Mile	No	0	50
Unmappable facilities	Up to 1.0 Mile	No	0	3

N/A – Not Applicable

6.2 Discussion of Regulatory Records

6.2.1 National Priority List

The National Priority List (NPL) is the EPA's list of confirmed or proposed Superfund sites. Our review of this data includes sites which have been delisted from the NPL. The NPL is searched for a 1.0-mile distance.

The Site does not appear on the NPL. There are no facilities on the NPL within 1.0-mile of the Site.

6.2.2 SUPERFUND ENTERPRISE MANAGEMENT SYSTEM

The Superfund Enterprise Management System (SEMS, formerly CERCLIS) is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances. Our review of SEMS sites includes archive (no further remedial action planned) facilities. The SEMS list is searched for a 0.5-mile distance.

The Site does not appear on the SEMS list. There are no SEMS facilities within 0.5 mile of the Site.

6.2.3 RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act compile selective information on facilities which generate, transport, store, treat and or dispose of hazardous waste. RCRA facilities can be listed on one of three databases:

- *Corrective Action Facilities (CORRACTS)* are facilities undergoing corrective action. A corrective action order is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. The CORRACTS list is searched for a 1.0-mile distance.

  The Site does not appear on the CORRACTS list. There are no facilities on the CORRACTS list within 1.0-mile of the Site.

- *Transportation, Storage, and Disposal Facilities (TSD)* includes facilities that transport, store or dispose of hazardous waste and are not listed on the RCRA Generators list. The TSD is searched for a 0.5-mile distance.

  The Site does not appear on the RCRA TSD list. There are no facilities on the RCRA TSD list within 0.5-mile of the Site.

- *Generators List* identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste. The RCRA generators list is searched for the Site and adjacent properties.

  The Site does not appear on the RCRA Generators list.

There are five (5) facilities listed as a RCRA Generator; however, none of these facilities are located adjacent the Site. These facilities are not considered an environmental concern to the Site.

6.2.4 Emergency Response Notification System

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil or hazardous substances. The ERNS list is searched for the Site. The Site does not appear on the ERNS list.

6.2.5 Federal Institutional Control/Engineering Control Registries

The EPA maintains three (3) databases which list sites that have institutional and/or engineering controls in place as part of their operations. These databases are searched for the Site.

The Site does not appear on the Federal Institutional Control/Engineering Control databases.

6.2.6 State Response Sites

The State Response Sites (RESPONSE) records are the state equivalent to the federal National Priorities List (NPL) database. The RESPONSE is searched for a 1.0-mile distance.

The Site does not appear on the on the RESPONSE. There are no RESPONSE facilities listed within a 1.0-mile distance of the Site.

6.2.7 EnviroStor Database

The EnviroStor Database (EnviroStor, formerly CALSITES) records are the state equivalent to the federal SEMS database. EnviroStor is searched for a 0.5-mile distance.

The Site does not appear on the EnviroStor database.

There is one EnviroStor facility within 0.5 mile of the Site. The facility is listed as Rialto Community School, located at Rialto Avenue and Arrowhead Avenue. The facility is listed as being located 0.25 to 0.5 (0.464) mile south-southeast of the Site. Schools and school facilities in California are required to undergo a Preliminary Endangerment Assessment, which results in them being listed on the EnviroStor. The facility status is listed as "No Further Action". Due to the status of this listing, this facility is not considered an environmental concern to the Site.

6.2.8 California Hazardous Material Incident Report System

The California Hazardous Material Incident Report Systems (CHMIRS) is a state database used to collect information on reported hazardous materials incidents (accidental leaks and spills). The CHMIRS list is searched for a 0.25-mile distance.

The Site does not appear on the CHMIRS list. There are no CHMIRS facilities located within 0.25 mile of the Site.

6.2.9 Solid Waste Facilities List

The Solid Waste Fill/Landfill (SWF/LF), Waste Management Unit Database System (WMUDS)/Solid Waste Assessment Test (SWAT), and Solid Waste Recycling Facilities (SWRCY) databases (collectively, the "SWLF databases") includes information pertaining to closed and open solid waste facilities operating in the state of California. The SWLF databases are searched for a 0.5-mile distance.

The Site does not appear on the SWLF databases.

There is one facility on the SWLF databases within 0.5-mile of the Site. The facility is listed as Berber Recycling, located at 728 East Foothill Boulevard. The facility is being located less than 0.125 (0.120) miles east of the Site. Due to this facility being located hydrogeologically cross-gradient of the Site, this facility is not considered an environmental concern to the Site.

6.2.10 Leaking Underground Storage Tanks List

The California Leaking Underground Storage Tanks (LUST) list is a compilation of petroleum storage tank sites that have reported a release. The LUST list is searched for a 0.5-mile distance.

The Site does not appear on the LUST list.

There are six (6) facilities listed on the LUST list within 0.5-mile of the Site. The table below provides the facility name, address, location in relation to the Site and the facility status.

#	Facility Name	Facility Location	Facility Distance	Facility Status
1	Thrifty Oil #77 / Arco #9551	280 E Foothill Blvd	0.25 to 0.5 (0.310) mile W (Cross-Gradient)	Completed – Case Closed
2	Thrifty Oil #77 / Arco #9551	280 Foothill Blvd	0.25 to 0.5 (0.314) mile WSW (Cross-Gradient)	Preliminary Site Assessment Workplan Submitted
3	Rialto Car Wash	660 Rialto	Less than 0.125 (0.052) mile ESE (Cross-Gradient)	Case Closed
4	Rialto Car Wash	660 E Foothill Blvd	Less than 0.125 (0.055) mile ESE (Cross-Gradient)	Completed – Case Closed
5	Suru's Shell	684 E Foothill Blvd	Less than 0.125 (0.067) mile ESE (Cross-Gradient)	Completed – Case Closed
6	Suru's Shell	684 Foothill Blvd	Less than 0.125 (0.079) mile ESE (Cross-Gradient)	Case Closed

Facility Nos. 1 and 2 appear to be one in the same. Facility Nos. 3 and 4 appear to be one in the same. And Facility Nos. 5 and 6 appear to be one in the same. Due to these listing's status and location hydrogeologically cross-gradient, these listings are not considered an environmental concern to the Site.

6.2.11 Underground Storage Tanks List

The California Underground Storage Tank (UST) list, Historic UST list, SWEEPs UST list and CA FID UST (collectively the "UST lists"), is a compilation of petroleum storage tank sites that are registered with the state of California. The UST lists are searched for the Site and adjacent properties.

The Site does not appear on the UST lists. There are no facilities listed on the UST list; three (3) facilities listed on the SWEEPs UST list; four (4) facilities listed on the HIST UST list; and three (3) facilities listed on the CA FID UST list. However, none of these facilities are located adjacent the Site.

6.2.12 Spills, Leaks, Investigation and Cleanup Cost Recovery Listing (SLIC)

The SLIC database is compiled by the CEPA California Regional Water Quality Control Board, San Ana Region. It is designed to protect and restore water quality from spills, leaks, and similar discharges. The SLIC is searched for a 0.5-mile distance.

The Site does not appear on the SLIC. There are no SLIC facilities adjacent to the Site.

6.2.13 State Institutional Control/Engineering Control Registries

The State of California maintains institutional and engineering control databases or registries. This lists sites with engineering or institutional controls in place. Institutional controls include administrative measures intended to prevent exposure to contaminants remaining on site. Engineering controls include various forms of caps, building foundations, liners, and treatment methods. The State Institutional Control/Engineering Control Registries is searched for the Site.

The subject Site does not appear on the State Institutional Control/Engineering Control Registries.

6.2.14 Tribal Databases

Tribal governments are under the jurisdiction of the EPA for environmental concerns. Currently, the EPA Region 9 publishes LUST and UST information for tribes in Arizona, California, Hawaii, Nevada, and the Pacific Territories. The LUST database is searched for 0.5 mile, and the UST database is searched for 0.25 mile.

The Site does not appear on the Tribal LUST or UST databases. No facilities were identified on the Tribal LUST or UST databases within 0.5 mile of the Site.

6.2.15 Other Databases

EDR compiles information from multiple federal, state, local, and proprietary databases. Most are secondary or tertiary or redundant. Facilities compiled on these other databases are evaluated based on the severity of the listing, distance, and location.

The Site appears on the environmental database report obtained for this assessment. The Site is listed with Facility Index System/Facility Registry System (FINDS), National Pollutant

Discharge Elimination System (NPDES), California Integrated Water Quality System (CIWQS), CalEPA Regulated Site Portal (CERS) and Enforcement and Compliance History Information (ECHO). These listings are associated with the former earthwork construction on the Site and are not considered an environmental concern to the Site.

There are four (4) facilities listed with CERS HAZ WASTE.

There are 10 facilities listed with RCRA NonGen/NLR.

There are two (2) facilities listed with FINDS.

There are two (2) facilities listed with ECHO.

There are three (3) facilities listed with Cortese.

There are two (2) facilities listed with HAZNET.

There are two (2) facilities listed with HIST CORTESE.

There are thirteen (13) facilities listed with San Bern. Co. Permit.

There is one (1) facility listed with Notify 65.

There is one (1) facility listed with CERS.

There are two (2) facilities listed with HWTS.

There are five (5) facilities listed with EDR Hist Auto.

There is one (1) facility listed with EDR Hist Cleaner.

Due to their status listings, distances, and/or locations it is our opinion that these facilities do not represent an environmental concern to the Site.

6.2.16 Dry Cleaners

The DRYCLEANERS list is compiled and provided by EDR. The DRYCLEANER database is searched for a 0.25-mile distance.

The Site does not appear on the DRYCLEANER list.

There are two (2) DRYCLEANER facilities listed within 0.25-mile of the Site. The first facility is listed as Acacia Plaza Cleaner, located at 587 East Foothill Boulevard. The facility is listed as being located less than 0.125 mile from the Site. The second facility is listed as Best Cleaners and appears to be the same as the first facility listed above. Upon our review, this facility is located across the street from the Site and approximately 520 feet south-southeast of the Site. Due to this facility being hydrogeologically down-gradient of the Site, this facility is not considered an environmental concern to the Site.

6.2.17 Unmappable Facilities

GeoTek reviewed the listing of "orphan" or unmappable facilities in the database report.

There are three (3) unmapped facilities in the report. One facility is listed as Tosco/Unocal #1995 and upon our review is located approximately 0.64 mile southwest of the Site. The second facility is listed as Seccombe Lake State Recreation Area and upon our review is located approximately 4½ mile east of the Site. The third facility is listed as Norton AFN Building 754 and upon our review is located 7.23 miles east-southeast of the Site. Due these facilities distances and locations hydrogeologically cross-gradient, these facilities are not considered an environmental concern to the Site.

6.3 Local Regulatory Agency Records

GeoTek contacted City of Rialto Fire and Police Departments regarding underground or above ground storage tanks, hazardous material permits or business plans, emergency responses, spills, inspections, or other information of an environmental or hazardous nature. Neither of these agencies had any information for the Site.

7.0 VAPOR ENCROACHMENT SCREENING

The purpose of a Vapor Encroachment Screen (VES) is to identify, to the extent feasible, if a Vapor Encroachment Condition (VEC) exists at the Site.

A Vapor Encroachment Screen Report was generated for the Site and Site area utilizing EDR's Vapor Encroachment Worksheet (see Appendix E).

It was determined that there are no historical dry cleaners or auto stations located within 600 feet and/or up gradient from the Site.

It is our opinion that a VEC is not likely to exist at the subject Site. The Vapor Encroachment Screen report is included in Appendix E.

8.0 SITE AND SURROUNDING AREA HISTORY

In order to construct the history of the Site and the surrounding area, GEOTEK reviewed reasonably ascertainable public documents, including aerial photographs, topographic maps, building records, environmental liens and activity use limitations reports, city directories, fire insurance maps, and county assessor history records.

8.1 HISTORICAL SITE USAGE

8.1.1 AERIAL PHOTOGRAPH REVIEW

GEOTEK reviewed aerial photographs dated 1930, 1938, 1949, 1953, 1959, 1966, 1968, 1975, 1985, 1989, 1990, 1995, 2002, 2006, 2009, 2012, 2016 and 2020 (see Appendix B).

The Site appears to be land utilized for agriculture in the 1930 and 1938 aerial photographs.

Structures can be observed in the south portion of the Site in the 1949 and 1953 aerial photographs. The remaining portions of the Site appear to be land utilized for agriculture.

The Site is cleared of agriculture in the 1959, 1966, 1968, 1975, 1985, 1989 and 1990 aerial photographs. Structures can still be observed in the south portion of the Site.

Structures in the southeast portion of the Site appear to have been demolished in the 1995 aerial photograph. Structures can be observed in the southwest portion of the Site. The remaining portions of the Site appear to be vacant and developed land.

One of the structures in the southwest portion of the Site appears to have been demolished in the 2002 and 2006 aerial photographs. One structure can still be observed in the southwest portion of the Site. The remaining portions of the Site appear to be vacant and developed land.

The structure in the southwest portion of the Site appears to have been demolished in the 2009 aerial photograph. The remaining portions of the Site appear to be vacant and developed land.

The Site appears to be vacant and developed land in the 2012 aerial photograph.

Grading can be observed on the Site in the 2016 aerial photograph.

The Site appears to be vacant and developed land and similar to current conditions in the 2020 aerial photograph.

A 2020 aerial photograph is utilized for Figure 2 (Appendix A).

8.1.2 TOPOGRAPHIC MAP REVIEW

GEOTEK reviewed the San Bernardino Quadrangle (15-minute series), dated 1896; the San Bernardino Quadrangle (15-minute series), dated 1898; the San Bernardino Quadrangle (15-minute series), dated 1901; the Arrowhead, Devore and Colton Quadrangles (7.5-minute series), dated 1936/1938; the San Bernardino Quadrangle (15-minute series), dated 1942; the Colton and Fontana Quadrangles (7.5-minute series), dated 1943; the Fontana, San Bernardino South, Devore and San Bernardino North (7.5-minute series), dated 1953/1954; the San Bernardino Quadrangle (15-minute series), dated 1954; the Devore, San Bernardino South, San Bernardino North and Fontana Quadrangles (7.5-minute series), dated 1966/1967; the San Bernardino North, Fontana and San Bernardino South Quadrangles (7.5-minute series), dated 1973; the San Bernardino Quadrangle (15-minute series), dated 1975; the Devore, Fontana, San Bernardino North and San Bernardino South Quadrangles (7.5-minute series), dated 1980; and the Devore, Fontana, San Bernardino North and San Bernardino South Quadrangle (7.5-minute series), dated 2012 (see Appendix B).

A structure can be observed in the southeast portion of the Site on the topographic map sheets dated 1896, 1898 and 1901. The remaining portions of the Site appear to be vacant land.

The Site appears to be vacant land on the topographic map sheet dated 1936/1938.

A structure can be observed in the southwest portion of the Site on the topographic map sheet dated 1942. The remaining portions of the Site appear to be land utilized for agriculture.

The Site appears to be vacant land on the topographic map sheets dated 1943, 1953/1954 and 1954.

Five structures can be observed in the southern portion of the Site on the topographic map sheets dated 1966/1967 and 1973. The remaining portions of the Site appear to be vacant land.

One of the structures in the southern portion of the Site appears to have been demolished on the topographic map sheet dated 1975. The remaining portions of the Site appear to be vacant land.

A total of seven structures can be observed in the southern portion of the Site on the topographic map sheet dated 1980. The remaining portions of the Site appear to be vacant land.

The 2012 maps show little detail other than streets in the vicinity.

A 2012 topographic map sheet is utilized for Figure 1 (Appendix A).

8.1.3 Building Department Records

Building department records were not obtained from and not provided by EDR for this assessment as the Site as they were not readily obtainable.

8.1.4 City Directory Review

GeoTek obtained The EDR – City Directory Image Report, as obtained from and provided by EDR, and included in Appendix B. No listed were found for the Site address of 534 East Foothill Boulevard.

8.1.5 Sanborn Map Review

Sanborn Fire Insurance Maps for the parcel were requested from EDR-Sanborn, which owns and maintains the largest and most complete collection of the maps. Source sheets were not available for the Site. The Sanborn Map Report is included in Appendix B.

8.1.6 Chain of Title

GeoTek has not received Chain-of-Title documents for the Site.

8.2 Historical Immediately Surrounding Property Usage

8.2.1 Aerial Photograph Review

GeoTek reviewed aerial photographs dated 1930, 1938, 1949, 1953, 1959, 1966, 1968, 1975, 1985, 1989, 1990, 1995, 2002, 2006, 2009, 2012, 2016 and 2020 (see Appendix B).

The surrounding properties appear to be land utilized for agriculture in the 1930 and 1938 aerial photographs.

A drive-in theater can be observed on the property to the south in the 1949 aerial photograph. Structures can be observed on the property to the west. The remaining surrounding properties appear to be land utilized for agriculture.

Several residential structures can be observed on the property to the west in the 1953 aerial photograph. The property to the east appears to be vacant land and land utilized for agriculture, along with a few structures. A drive-in theater can be observed on the property to the south. The property to the north appears to be land cleared of agriculture.

The properties to the north and east appear to be vacant land in the 1959 aerial photograph. Some structures can be observed on the property to the east. A drive-in theater can be observed on the property to the south. Residential structures can be observed on the property to the west.

Residential structures and vacant land can be observed on the property to the north in the 1966 and 1968 aerial photographs. Some residential structures, vacant land and one commercial structure can be observed on the property to the east. A drive-in theater can be observed on the property to the south. Residential structures can be observed on the property to the west.

New residential structures can be observed on the property to the east in the 1975 aerial photograph, along with vacant land and one commercial structure. Residential structures and vacant land can be observed on the property to the north. A drive-in theater can be observed on the property to the south. Residential structures can be observed on the property to the west.

A commercial structure and parking area can be observed on the property to the west, along with residential structures, in the 1985 aerial photograph. Residential structures and vacant land can be observed on the property to the north. Residential structures and commercial structures can be observed on the property to the east. A drive-in theater can be observed on the property to the south.

The drive-in theater on the property to the south appears to have been demolished in the 1989 and 1990 aerial photographs. Residential structures and vacant land can be observed on the property to the north. Residential structures and commercial structures can be observed on the property to the east. Residential structures can be observed on the property to the west.

A commercial shopping center can be observed on the property to the south in the 1995, 2002, 2006, 2009, 2012, 2016 and 2020 aerial photographs. Commercial and residential structures can be observed on the property to the east and west. Residential structures and vacant land can be observed on the property to the north.

8.2.2 Topographic Map Review

GeoTek reviewed the San Bernardino Quadrangle (15-minute series), dated 1896; the San Bernardino Quadrangle (15-minute series), dated 1898; the San Bernardino Quadrangle (15-minute series), dated 1901; the Arrowhead, Devore and Colton Quadrangles (7.5-minute series), dated 1936/1938; the San Bernardino Quadrangle (15-minute series), dated 1942; the Colton and Fontana Quadrangles (7.5-minute series), dated 1943; the Fontana, San Bernardino South, Devore and San Bernardino North (7.5-minute series), dated 1953/1954; the San Bernardino Quadrangle (15-minute series), dated 1954; the Devore, San Bernardino South, San Bernardino North and Fontana Quadrangles (7.5-minute series), dated 1966/1967; the San Bernardino North, Fontana and San Bernardino South Quadrangles (7.5-minute series), dated 1973; the San Bernardino Quadrangle (15-minute series), dated 1975; the Devore, Fontana, San Bernardino North and San Bernardino South Quadrangles (7.5-minute series), dated 1980; and the Devore, Fontana, San Bernardino North and San Bernardino South Quadrangle (7.5-minute series), dated 2012 (see Appendix B).

Structures can be observed on the properties to the north, east and west on the topographic map sheets dated 1896, 1898 and 1901. The property to the south appears to be vacant land.

The surrounding properties appear to be vacant land on the topographic map sheet dated 1936/1938.

Structures can be observed on the properties to the north, east and west on the topographic map sheet dated 1942. The property to the south appears to be land utilized for agriculture.

The surrounding properties appear to be vacant land on the topographic map sheets dated 1943 and 1953/1954.

Structures can be observed on the property northwest of the Site on the topographic map sheet dated 1954. The remaining surrounding properties appear to be vacant land.

A drive-in theater and associated structures can be observed on the property to the south on the topographic map sheets dated 1966/1967, 1973. Structures can be observed on the property to the east. The properties to the north and west appear to be vacant land.

The properties to the north, east and west appear to be vacant land on the topographic map sheet dated 1975. A drive-in theater and associated structures can be observed on the property to the south.

A new structure associated with the drive-in theater to the south can be observed on the topographic map sheet dated 1980. Structures can be observed on the property to the east. The properties to the north and west appear to be vacant land.

The 2012 maps show little detail other than streets in the vicinity.

The 2012 map is presented as Figure 1 in Appendix A.

8.2.3 City Directories

GeoTek has reviewed a City Directory Image Report obtained from and provided by EDR for the Site and surrounding property addresses. The City Directory Image report provides information on a few nearby property addresses. It is our opinion that the named facilities do not currently represent an environmental concern to the Site. A copy of the City Directory Image report is included in Appendix B.

8.2.4 Sanborn Map Review

Sanborn Maps for the Site were requested from EDR-Sanborn, which owns and maintains the largest and most complete collection of the maps. Source sheets were not available for the Site. The Sanborn Map Report is included in Appendix B.

8.3 Historical Use Summary

Based on readily available historic information, the Site appears to have been land utilized for agriculture from at least 1930 through at least 1953. The Site was cleared of agriculture in an aerial photograph dated 1959. Structures can be observed in the southern portion of the Site from at least 1949 through at least 2006. The Site appears to be vacant land in aerial photographs dated 2009 and 2012. Grading (earthwork construction) can be observed on the Site in an aerial photograph dated 2016. The surrounding properties appear to historically have

been land utilized for agriculture from at least 1930 through at least 1953. A drive-in theater to the south of the Site can be observed from at least 1949 through at least 1985. The residential structures to the west and east can first be observed in an aerial photograph dated 1953. The residential structures to the north can first be observed in an aerial photograph dated 1966. The shopping center to the south can be observed from at least 1995 to the present day. Based on the available information, no recognized environmental conditions were identified from the historic data.

Data gaps exist from 1901 to 1930, 1959 to 1966 and 1995 to 2002 due to the limited records which are reasonably ascertainable in the local area. However, it is our opinion that additional historic information, if it were to become available, is not likely to change the conclusions or recommendations of this assessment.

9.0 SIGNIFICANT DATA GAPS

No significant data gaps were discovered while performing this Phase I and Limited Phase II Environmental Site Assessment. Therefore, it is our opinion that sufficient information was obtained to identify current Site conditions and past Site usage.

Minor data gaps include:

- Gaps in the historic records from 1901 to 1930, 1959 to 1966 and 1995 to 2002;
- GEOTEK has not received nor reviewed Chain-of-Title documents for the Site.

It is our opinion that additional information, if it were to become available, is not likely to change the conclusions or recommendations of this assessment.

10.0 SUMMARY OF LIMITED SOIL ANALYSIS

GEOTEK obtained soil samples from the Site for chemical analysis. Eight (8) composite soil samples were obtained from selected areas of the Site and submitted to a state certified laboratory for analysis of organo-chlorinated pesticides.

Soil samples were obtained from a depth of up to approximately six inches below the existing ground surface. The eight (8) composite soil samples were submitted for analysis of organo-chlorinated pesticides (OCP) in accordance with United States Environmental Protection Agency (EPA) Method 8081A.

Analysis of the soil samples detected measurable quantities of the OCP constituent dieldrin in one of the samples (#7) collected. The applicable results of the laboratory analysis are summarized in the following table:

TABLE I
OCP SUMMARY ANALYTICAL RESULTS

Sample	Dieldrin (ug/kg)
#1	ND (<2.0 ug/kg)
#2	ND (<2.0 ug/kg)
#3	ND (<2.0 ug/kg)
#4	ND (<2.0 ug/kg)
#5	ND (<2.0 ug/kg)
#6	ND (<2.0 ug/kg)
#7	2.3
#8	ND (<2.0 ug/kg)
Screening Level	**34***

ug/kg = micrograms per kilogram
ND = Non-Detect
* = EPA Regional Screening Levels (RSLs) for residential soil (November 2020)

The OCP constituent is in a concentration below the screening level for residential soils, as determined by EPA Regional Screening Level (RSL) for residential soil, November 2020 (TR=1E-06, HQ=1.0). Analysis of the remaining OCP constituents in the soil samples tested were below EPA screening levels for residential soils.

A copy of the laboratory report and Chain-of-Custody documentation are included in Appendix F.

Based on our investigation, GEOTEK is of the opinion that additional investigation is not necessary at the Site.

11.0 CONCLUSIONS AND RECOMMENDATIONS

GEOTEK has performed a Phase I and Limited Phase II Environmental Site Assessment (ESA) for the subject Site in substantial conformance with the scope and limitations of ASTM E 1527-13 and GEOTEK Proposal No. P-0408021-CR, dated April 12, 2021. Any exceptions to, or deletions from, this practice are described in the appropriate sections of this report.

This Phase I and Limited Phase II Environmental Site Assessment has not revealed evidence of a recognized environmental condition or concern in connection with the subject Site. No further investigation is recommended.

12.0 CERTIFICATIONS

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Site. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

The qualifications of the Project Team are included in Appendix G.

We appreciate this opportunity to be of service. If you have any questions, or if we can be of further service, please contact us at (951) 710-1160.

Sincerely,
GEOTEK, INC.



Edward H. LaMont
Principal Geologist, CEG 1892
Exp. 07/31/2022

J. Michael Batten, CEM, REPA
Environmental Services Manager
Registered Environmental Property
Assessor No. 113162
Expires 06/15/2021

Anna M. Scott
Project Geologist

Gabriela Pocius
Staff Geologist

G:\Projects\2701 to 2750\2749CR Frontier Enterprises N Acacia Ave & E Foothill Rialto\Phase I ESA\2749CR Phase I Environmental Site Assessment Rialto.doc

13.0 REFERENCES

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- Dibblee, T.W. and Minch, J.A., 2004, "Geologic map of the San Bernardino North/north ½ of San Bernardino South quadrangles, San Bernardino and Riverside County, California", Dibblee Geological Foundation, Dibblee Foundation Map DF-127, scale 1:24,000
- Water Resources, Department of Hydrologic Data

ENVIRONMENTAL DATA RESOURCES, INC.

- Aerial Photo Decade Package, Inquiry No. 6463208.8, dated April 22, 2021
- Certified Sanborn Map Report, Inquiry No. 6463208.3, dated April 22, 2021
- City Directory Image Report, Inquiry No. 6463208.5, dated April 28, 2021
- Historical Topo Map Report, Inquiry No. 6463208.4, dated April 22, 2021
- Radius Map Report, Inquiry No. 6463208.2s, dated April 23, 2021
- Vapor Encroachment Screen Report, Inquiry No. 6463208.2s, dated April 27, 2021

FEDERAL EMERGENCY MANAGEMENT AGENCY

- Flood Insurance Rate Map, Community Panel Number 06071C-8676J, dated September 2, 2016, accessed on April 27, 2021

ORANGE COAST TITLE COMPANY

- Preliminary Report dated April 26, 2021

RIALTO, CITY OF

- Fire Department, Records Inquiry
- Police Department, Records Inquiry

SAN BERNARDINO, COUNTY OF

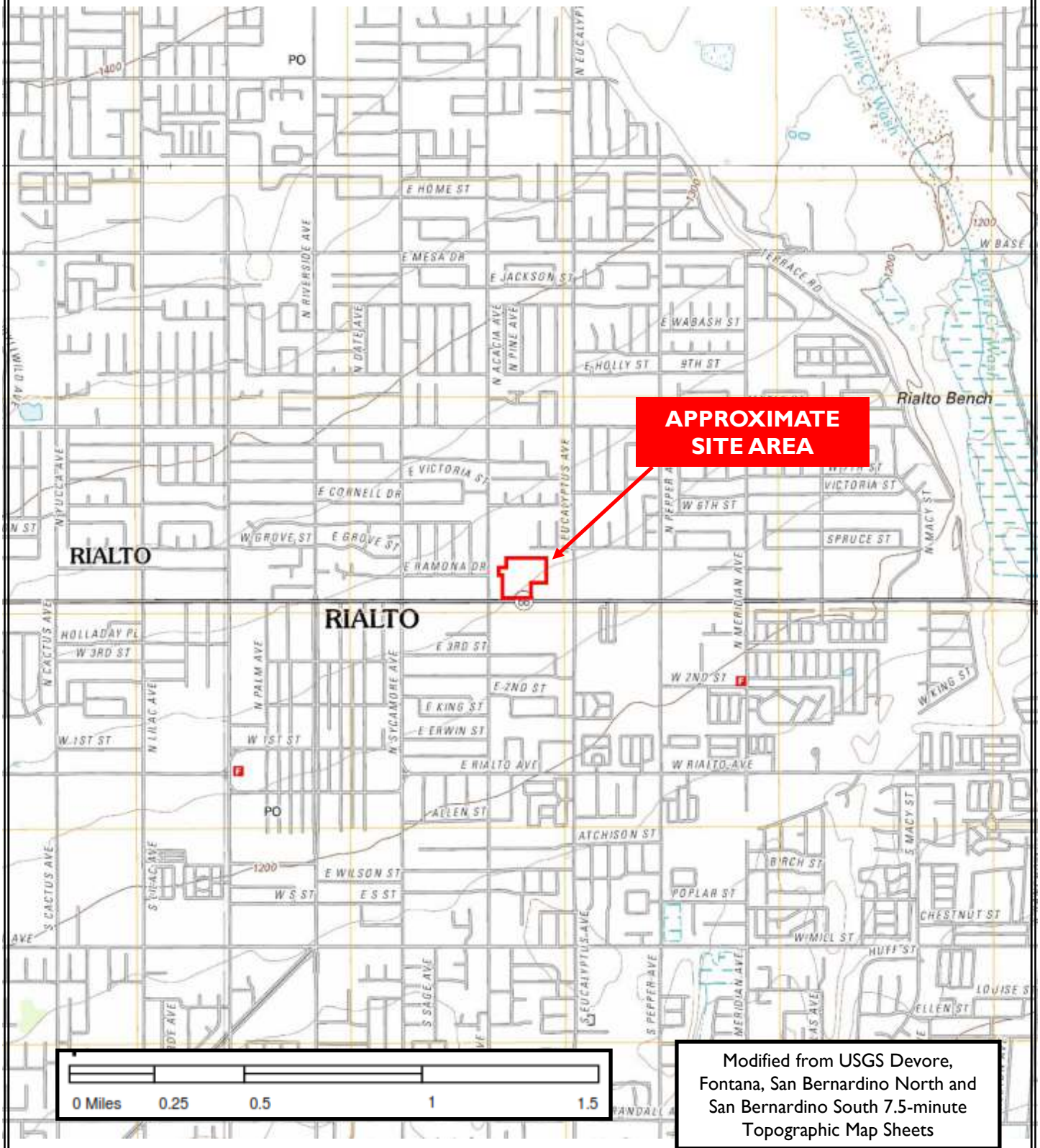
- Assessor's Office, Records Inquiry

U.S. GOVERNMENT

- Drug Enforcement Agency
- Records inquiry, http://www.dea.gov/seizures
- Federal Emergency Management Agency (FEMA)

APPENDIX A

FIGURES



Modified from USGS Devore, Fontana, San Bernardino North and San Bernardino South 7.5-minute Topographic Map Sheets

Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California

Project No. 2749-CR

NORTH

Figure 1

Site Location and Topography Map

GEOTEK


E Cornell Dr
E Rosewood St
E 6th St
N Oakdale Ave
N Sage Ave
N Marcella Ave
N Joyce Ave
N Primrose Ave
N Pampas Ave
N Maple Ave
N Chestnut Ave
N Lamar St
N Loretta St
E Grove St
Spruce St W
E Ramona Dr
E Foothill Blvd
66
E Elm Ct
N Acacia Ave
E 3rd St
900 ft
7
6
8-10
5
3-4
1-2
NORTH
Legend
Photo Locations
Site Boundary
Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California
GeoTek Project No. 2749-CR
GEOTEK
Figure 2
General
Site Layout Map

APPENDIX B

SUPPORTING DOCUMENTS

2749-CR

Foothill Blvd & N Acacia Ave

Rialto, CA 92376

Inquiry Number: 6463208.8

April 22, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

04/22/21

Site Name:

2749-CR
Foothill Blvd & N Acacia Ave
Rialto, CA 92376
EDR Inquiry # 6463208.8

Client Name:

Geotek
1548 North Maple Street
Corona, CA 92880
Contact: Gabriela Pocius

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1995	1"=500'	Acquisition Date: October 03, 1995	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1975	1"=500'	Flight Date: August 01, 1975	USGS
1968	1"=500'	Flight Date: August 21, 1968	USDA
1966	1"=500'	Flight Date: April 16, 1966	USGS
1959	1"=500'	Flight Date: October 15, 1959	USDA
1953	1"=500'	Flight Date: January 23, 1953	USDA
1949	1"=500'	Flight Date: May 06, 1949	USDA
1938	1"=500'	Flight Date: May 27, 1938	USDA
1930	1"=500'	Flight Date: March 25, 1930	FAIR

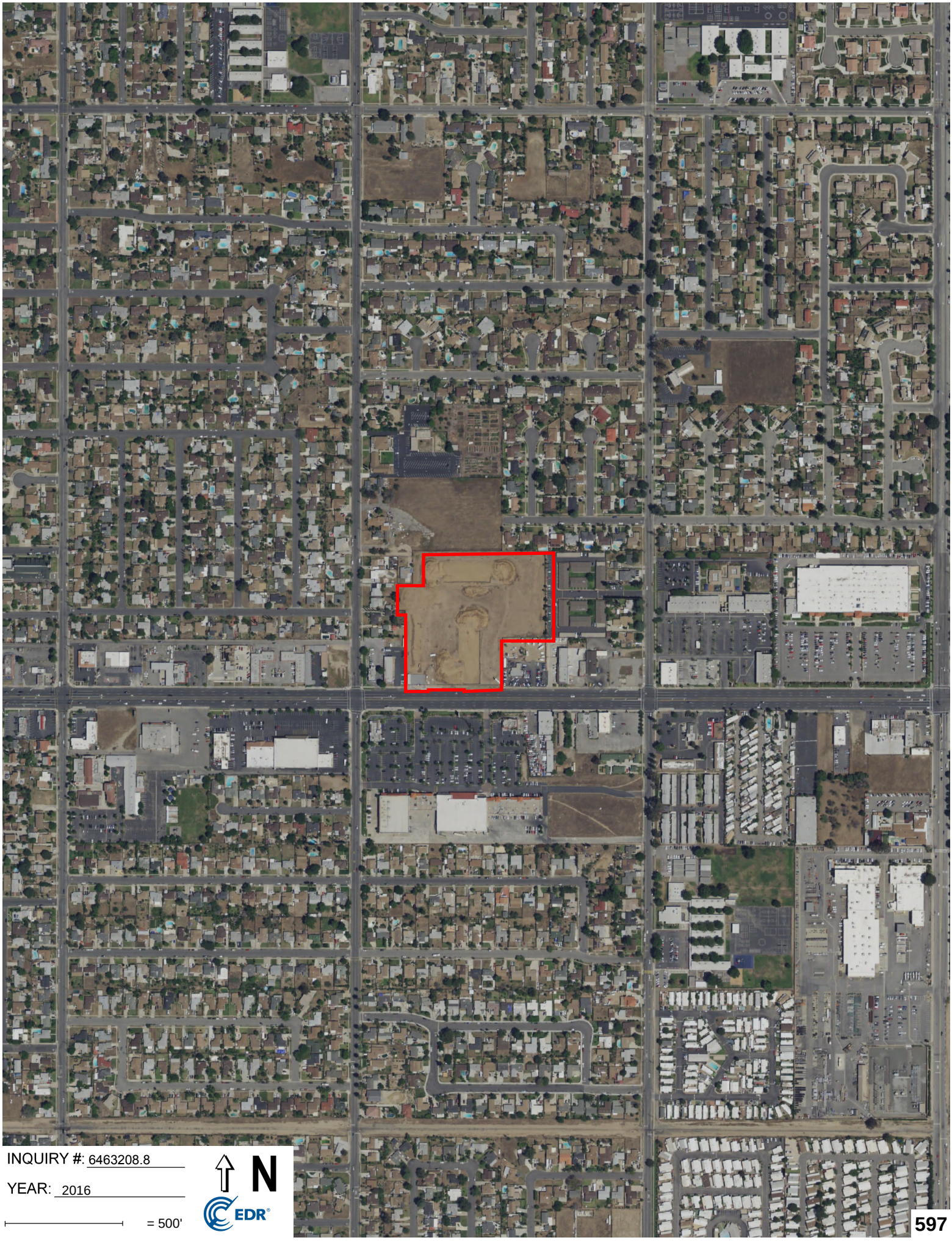
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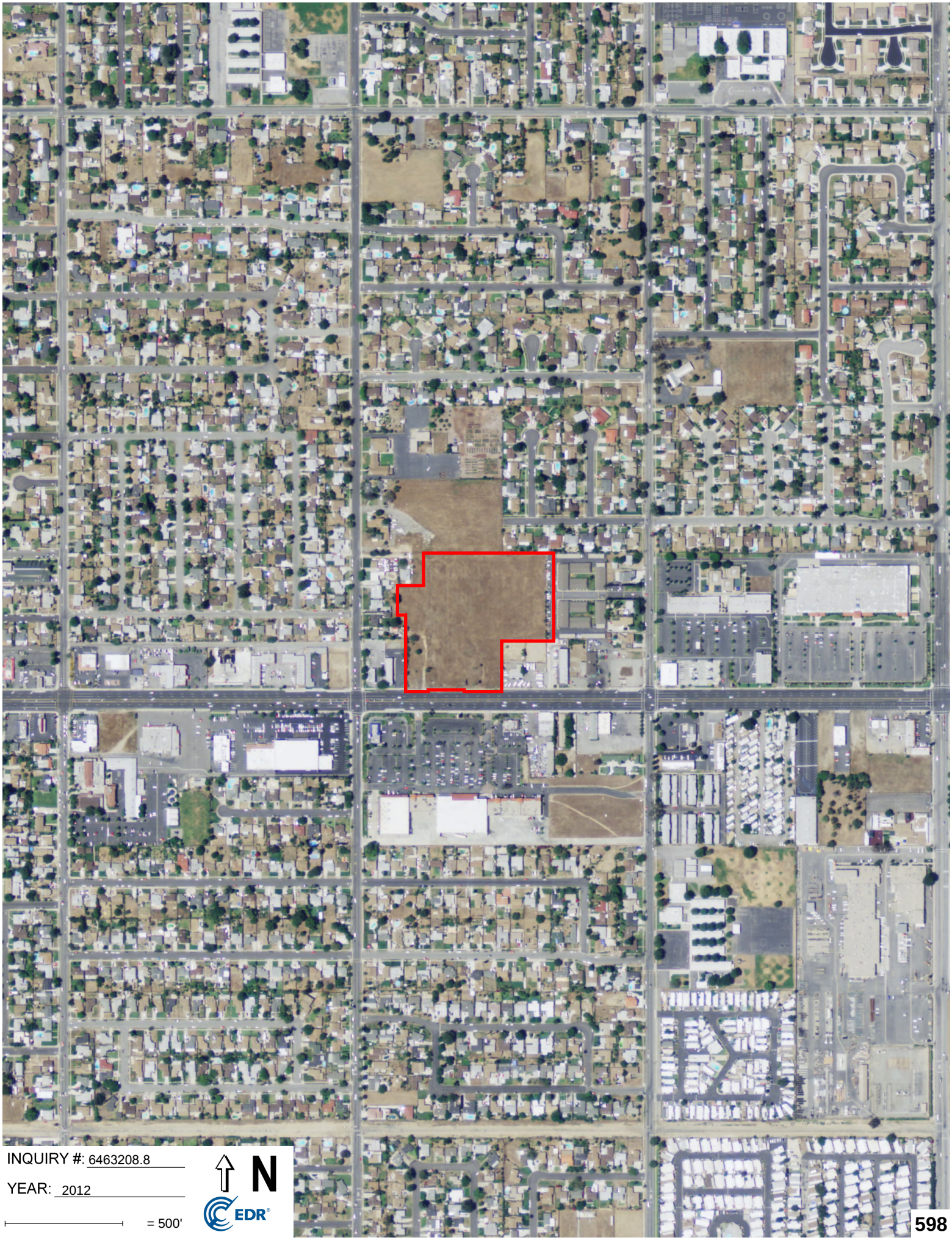
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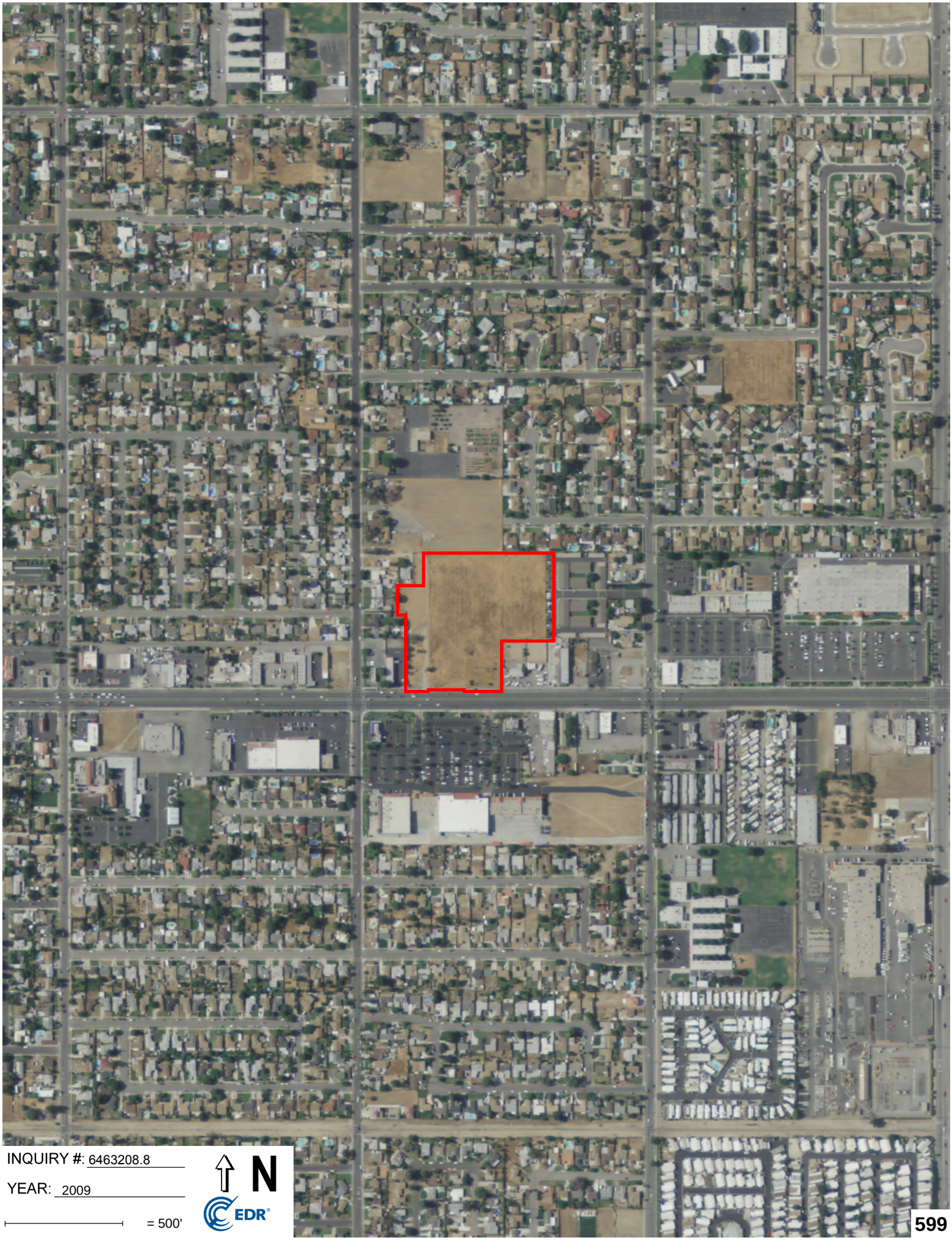
YEAR: 2016

= 500'

N

EDR


INQUIRY #: 6463208.8
YEAR: 2012
= 500'
N
EDR



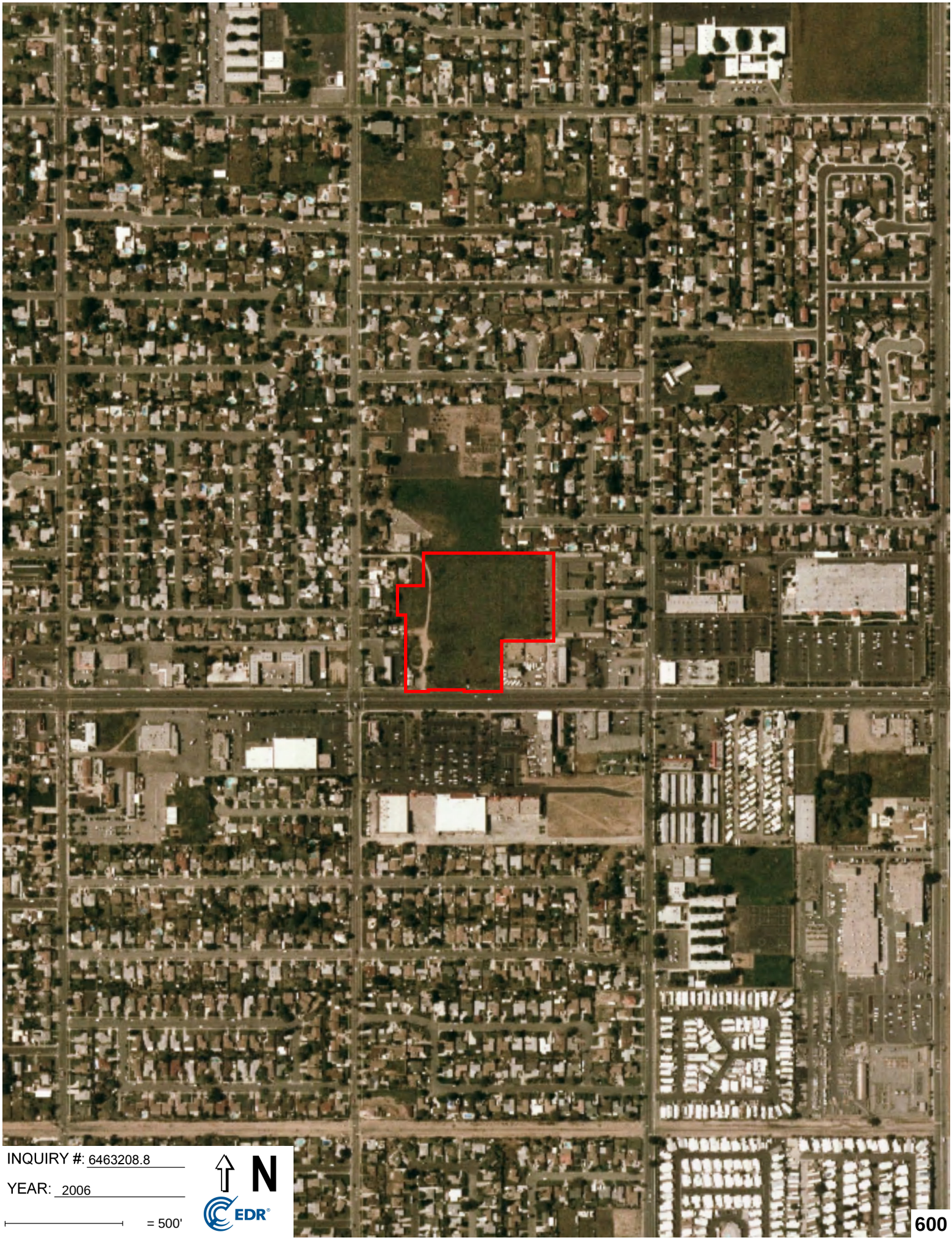
INQUIRY #: 6463208.8

YEAR: 2009

= 500'

N

EDR



INQUIRY #: 6463208.8

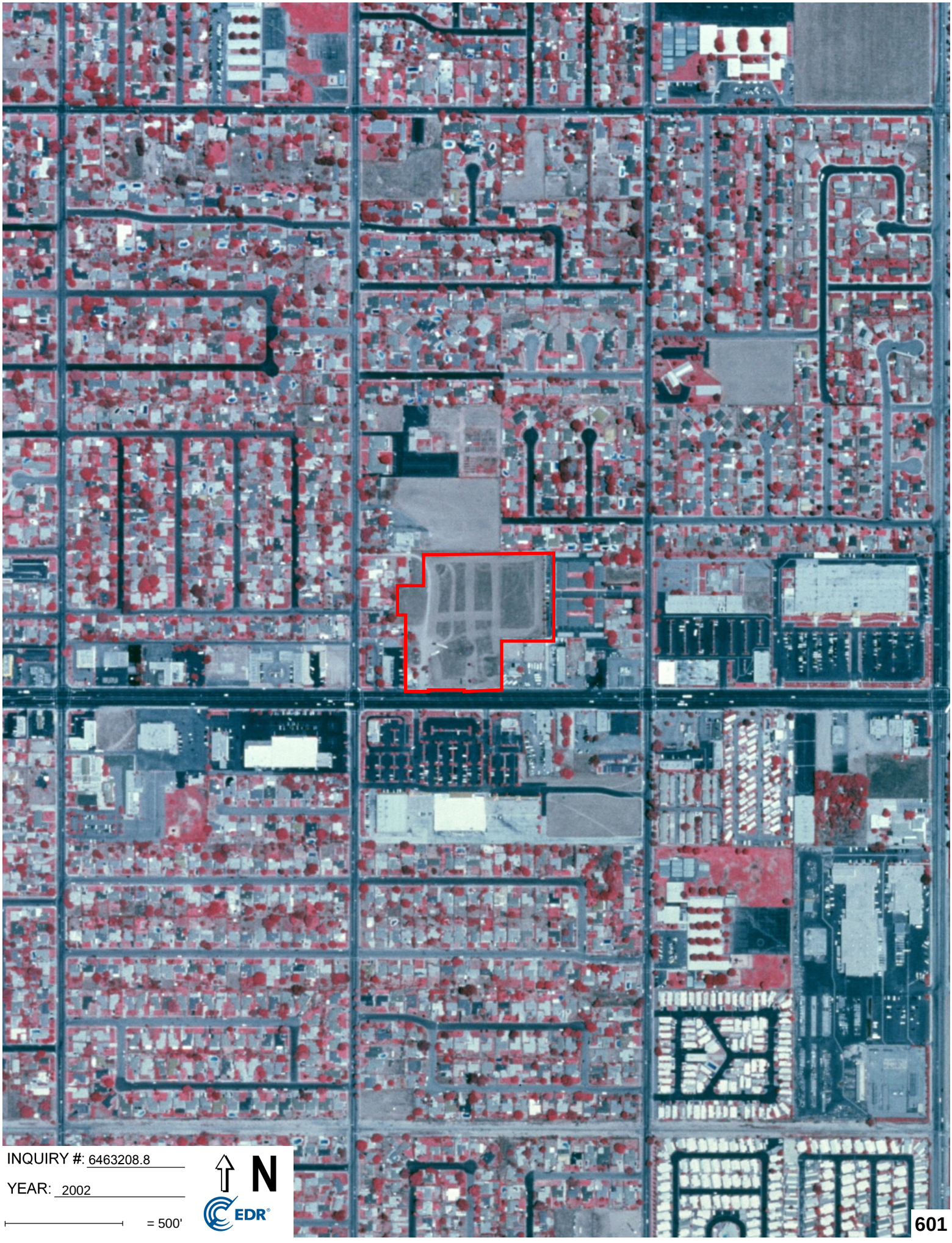
YEAR: 2006

= 500'

N

EDR

600



INQUIRY #: 6463208.8

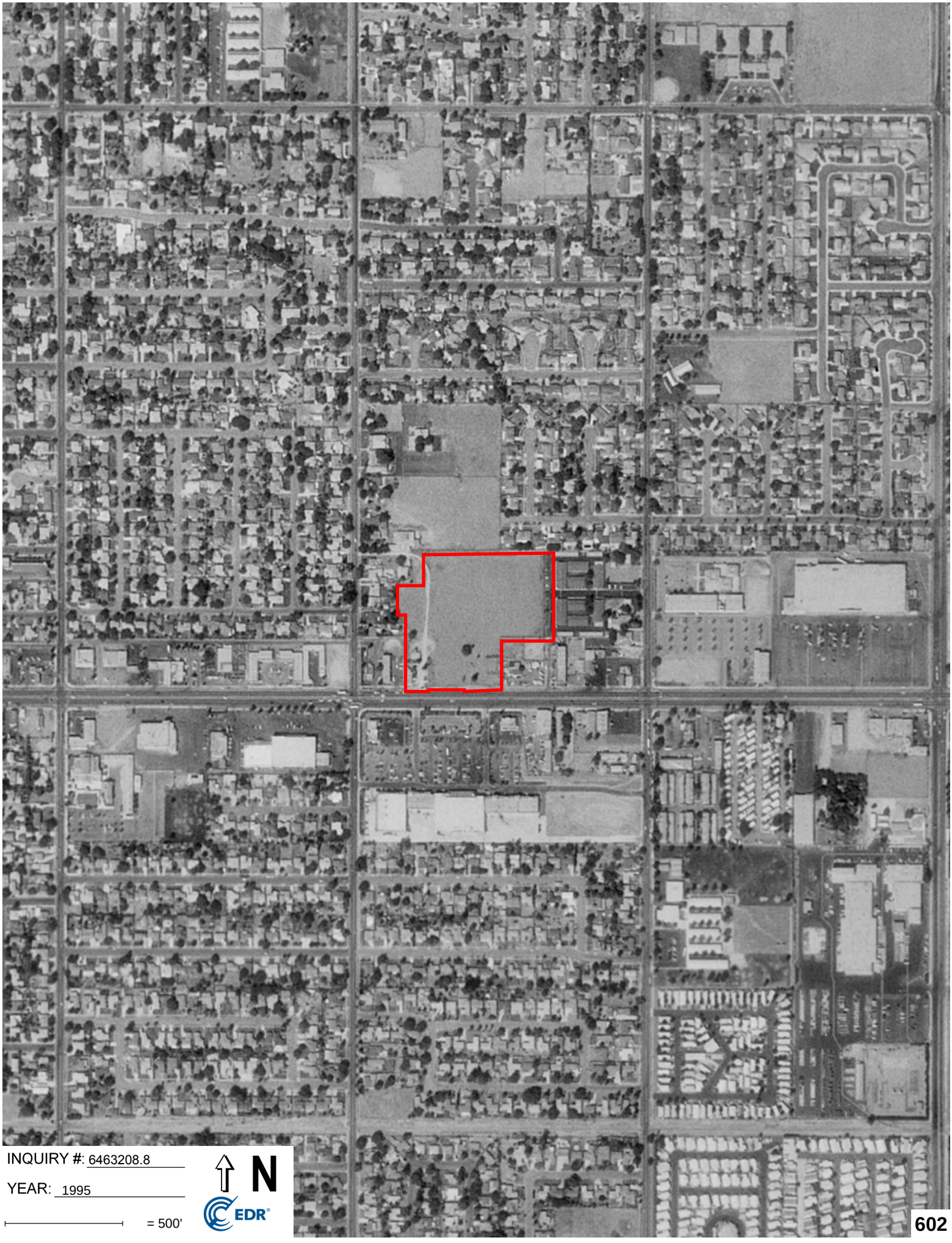
YEAR: 2002

= 500'

N

EDR

601



INQUIRY #: 6463208.8

YEAR: 1995

= 500'

N

EDR

602



INQUIRY #: 6463208.8

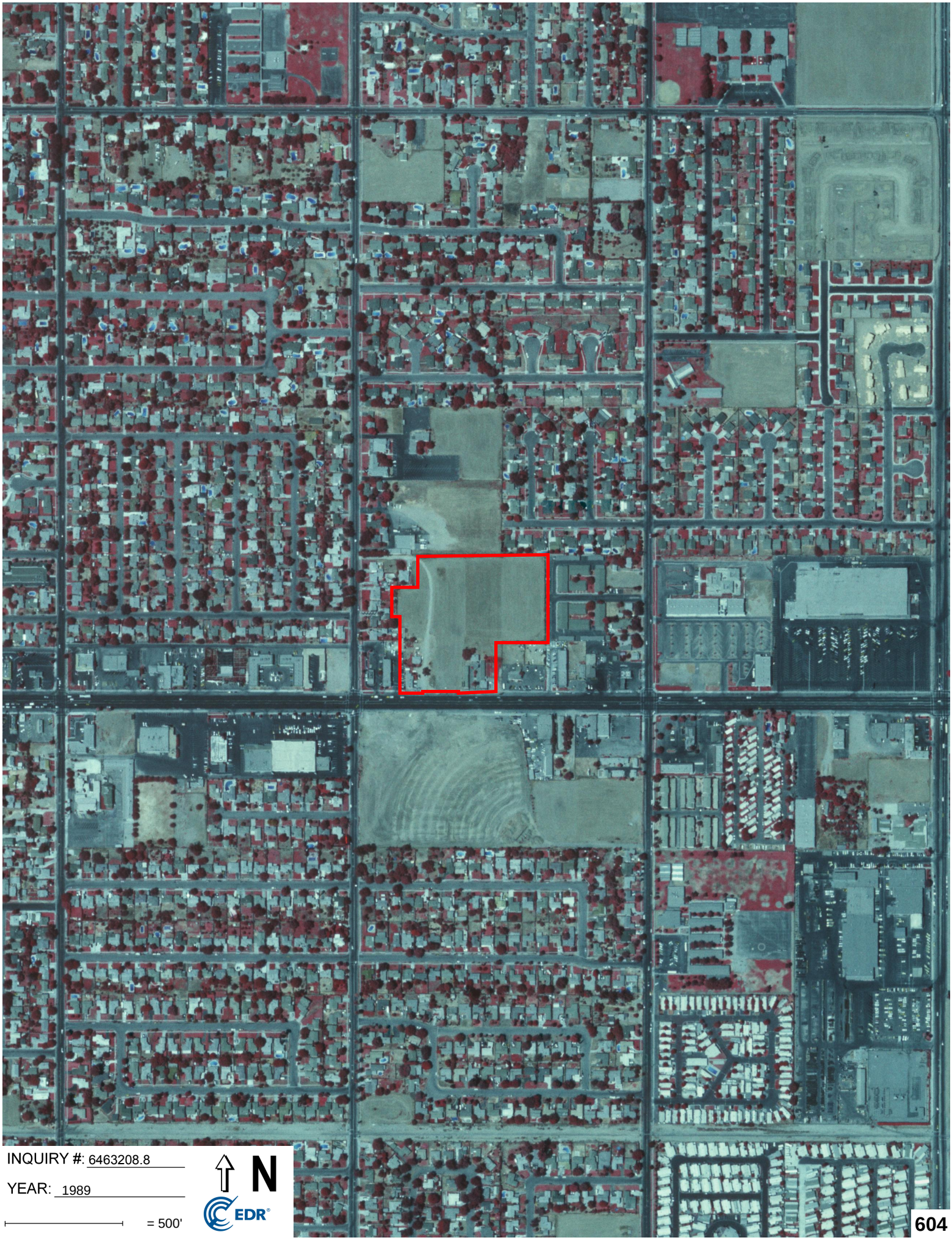
YEAR: 1990

= 500'

N

EDR

603



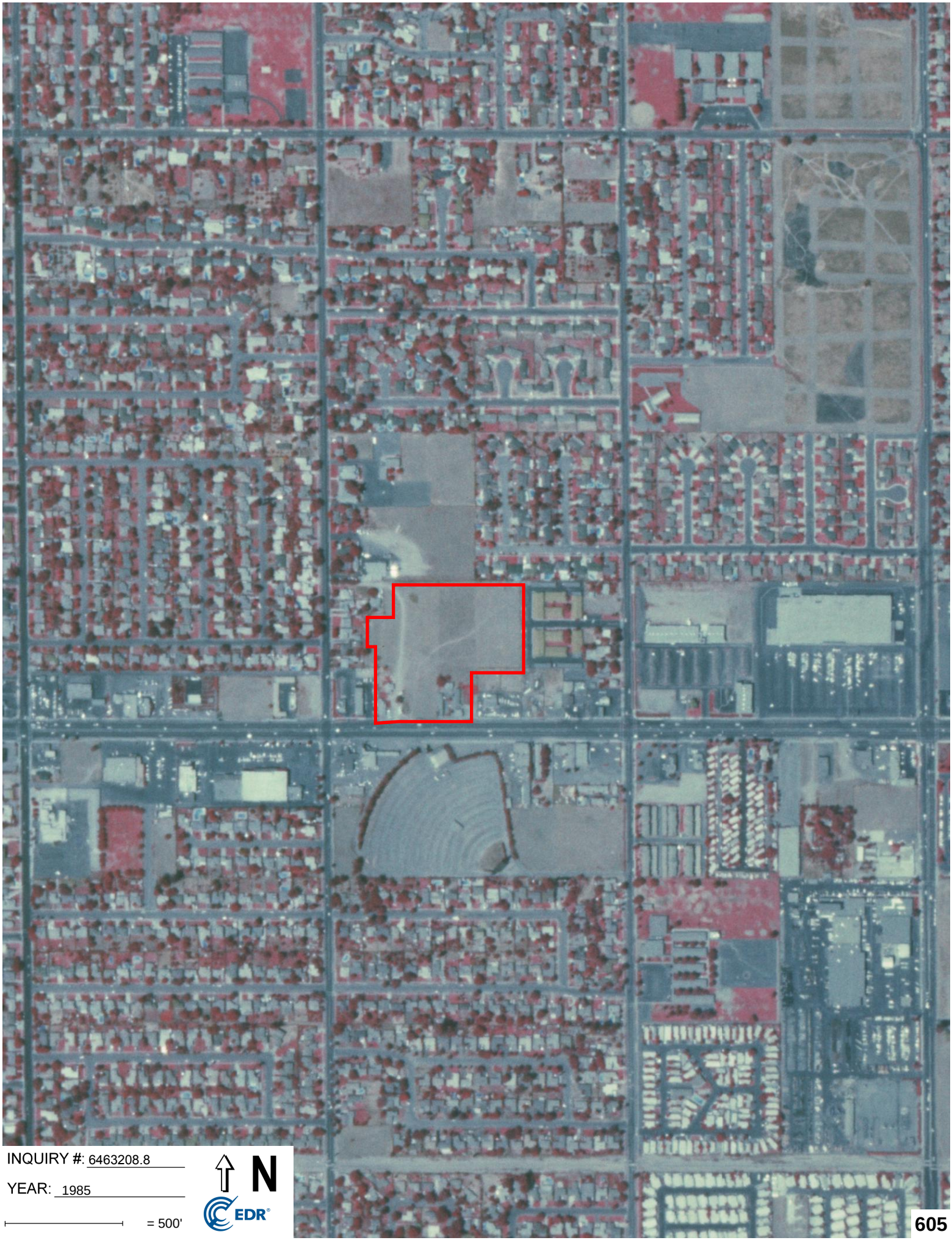
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YEAR: 1989

= 500'

N

EDR



INQUIRY #: 6463208.8

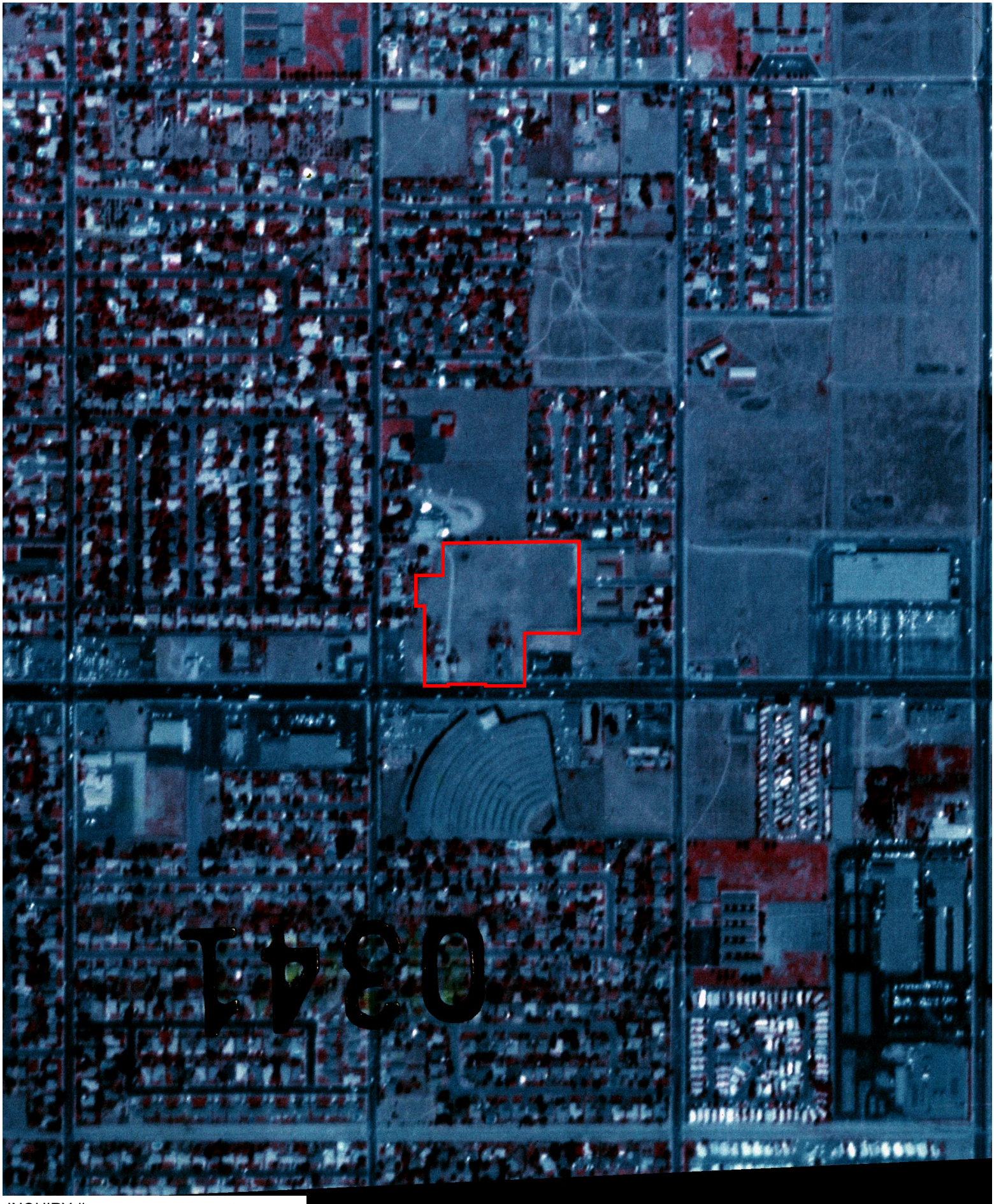
YEAR: 1985

= 500'

N

EDR

605



INQUIRY #: 6463208.8

YEAR: 1975

= 500'

N

EDR

606



INQUIRY #: 6463208.8

YEAR: 1968

= 500'

N

EDR

607



INQUIRY #: 6463208.8

YEAR: 1966

= 500'

N

EDR

608



INQUIRY #: 6463208.8

YEAR: 1959

= 500'

N

EDR

609



INQUIRY #: 6463208.8

YEAR: 1953

= 500'

N

EDR

610



INQUIRY #: 6463208.8

YEAR: 1949

= 500'

N

EDR



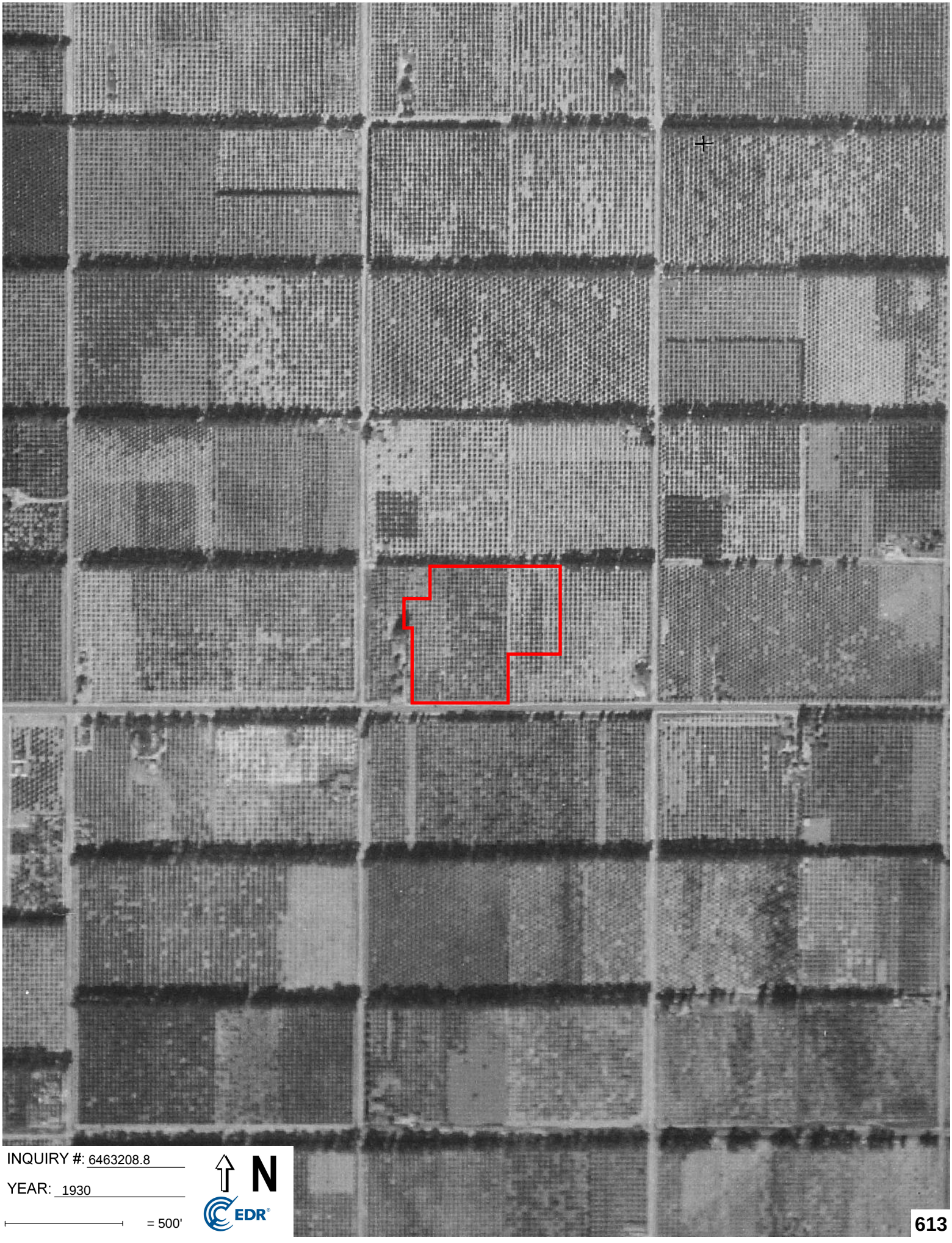
INQUIRY #: 6463208.8

YEAR: 1938

= 500'

N

EDR



INQUIRY #: 6463208.8

YEAR: 1930

= 500'

N

EDR

2749-CR

Foothill Blvd & N Acacia Ave

Rialto, CA 92376

Inquiry Number: 6463208.3

April 22, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

04/22/21

Site Name:

2749-CR
Foothill Blvd & N Acacia Ave
Rialto, CA 92376
EDR Inquiry # 6463208.3

Client Name:

Geotek
1548 North Maple Street
Corona, CA 92880
Contact: Gabriela Pocius

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Certified Sanborn Results:

Certification # C591-42A3-8490

PO # NA

Project 2749-CR

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: C591-42A3-8490

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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2749-CR
Foothill Blvd & N Acacia Ave
Rialto, CA 92376

Inquiry Number: 6463208.5
April 28, 2021

The EDR-City Directory Image Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

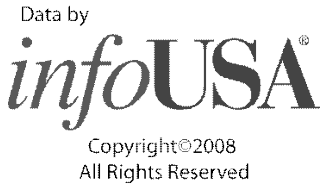
DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☑	EDR Digital Archive
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1985	☑	☑	Haines Criss-Cross Directory
1980	☑	☑	Haines Criss-Cross Directory
1976	☑	☑	Haines Criss-Cross Directory
1971	☑	☑	Haines Criss-Cross Directory
1965	☐	☐	Luskey City Directory
1942	☐	☐	San Bernardino Directory Company

FINDINGS

TARGET PROPERTY STREET

Foothill Blvd & N Acacia Ave
Rialto, CA 92376

Year	*CD Image*	*Source*	
FOOTHILL BLVD			
1985	pg A16	Haines Criss-Cross Directory	
1985	pg A17	Haines Criss-Cross Directory	
1980	pg A19	Haines Criss-Cross Directory	
1976	pg A21	Haines Criss-Cross Directory	
1971	pg A23	Haines Criss-Cross Directory	
1965	-	Luskey City Directory	Target and Adjoining not listed in Source
1942	-	San Bernardino Directory Company	Target and Adjoining not listed in Source
W FOOTHILL BLVD			
2017	pg A2	EDR Digital Archive	
2014	pg A4	EDR Digital Archive	
2010	pg A6	EDR Digital Archive	
2005	pg A8	EDR Digital Archive	
2000	pg A10	EDR Digital Archive	
1995	pg A12	EDR Digital Archive	
1992	pg A14	EDR Digital Archive	

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
ACACIA AVE			
1985	pg. A15	Haines Criss-Cross Directory	
1980	pg. A18	Haines Criss-Cross Directory	
1976	pg. A20	Haines Criss-Cross Directory	
1971	pg. A22	Haines Criss-Cross Directory	
1965	-	Luskey City Directory	Target and Adjoining not listed in Source
1942	-	San Bernardino Directory Company	Target and Adjoining not listed in Source
N ACACIA AVE			
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	pg. A7	EDR Digital Archive	
2000	pg. A9	EDR Digital Archive	
1995	pg. A11	EDR Digital Archive	
1992	pg. A13	EDR Digital Archive	

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 2017

181	ARROYO, JOHN
186	ROSALY, MAIRA A
196	ALVAREZ, TERESA A
206	CRESPO, EDWIN G
212	DICKES, JOSEPHINE V
350	SANDOVAL, PATRICIA
413	CHARBONNEAU, DENNIS J
417	MARTINEZ, RAMIRO
419	VILLALOBOS, MIKE
421	GONZALEZ, ERIK
444	ROMAN, JORGE A
450	VIERA, FERNANDO V
481	AGUAYO, SALVADOR

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 2017

434	SHEAR ELEGANCE BEAUTY SALON
440	GONZALEZ PEDRO DDS
445	BEST HOME LOAN
	RALTO AUTO SPA & DETIAL
446	BENNETT, MICHAEL J
	CHAGOLLA, CHAGOLIA L
456	SIERRA BAKERY & PARTY SHOP
462	GARCIA, ADRIEL
509	ANDYS MARKET
519	BACCAM GROUP
	STAR HAIR CUTS
	UNIVERSAL TRAVEL
	WESTSIDE PIT BBQ
523	BALLERS
	CREDIT AUTO SALES
550	PREMIER BARBERS
552	COIN WASH PLUS
	FURNITURE 4 LESS
	PREP 3 LLC
564	STREET POWER INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 2014

179	LUNA, RICHARD M
186	VARGAS, HECTOR E
196	ALVAREZ, TERESA A
206	CRESPO, EDWIN G
212	OCCUPANT UNKNOWN,
350	OCCUPANT UNKNOWN,
413	CHARBONNEAU, DENNIS J
415	OCCUPANT UNKNOWN,
417	MARTINEZ, RAMIRO
419	VARGAS, DELIA A
421	MARTINEZ, OLGA
432	HERNANDEZ, JAY
438	PERALTA, JOSE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 2014

440	GONZALEZ DDS PEDRO
445	RALTO AUTO SPA & DETIAL
446	CHAGOLLA, DENISE L
	DENISE, CHAGOLIA
	LOPEZ, ROBERT
	ORTEGA, LAURA
456	SIERRA BAKERY & PARTY SHOP
462	CASTILLO, SANTOS
463	PURRFECT
509	ANDYS MARKET
513	CECIS BEAUTY SALON
518	RIALTO ENERGY INC
519	ADELA BRIDAL
	BACCAM GROUP
	E Z CASH ADVANCE
	STAR HAIRCUTS
	UNIVERSAL TRAVEL
523	BROTHERS AUTO SOLUTIONS
	CREDIT AUTO SALES
548	ROYAL SMOKE SHOP

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 2010

186	VARGAS, HECTOR E
196	ALVAREZ, TERESA A
206	GOMEZ, LUCY B
212	DICKES, JOSEPHINE V
350	AGUILAR, DIEGO H
381	SPARKS, KAREN
413	OCCUPANT UNKNOWN,
415	OCCUPANT UNKNOWN,
417	MARTINEZ, RAMIRO
419	VARGAS, MARIA
421	TORESS, CATALINA M
432	CEBREROS, MARIA C
438	HERNANDEZ, JOSE F

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 2010

444 BLUE SKY FINANCIAL
446 BENNETT, MICHAEL J
CHAGOLLA, DENISE L
447 INLAND SEWVAC
456 A1 WINDOWS N MORE
SIERRA BAKERY & PARTY SHOP
462 OCCUPANT UNKNOWN,
463 PURRFECT AUTO SVC
509 ANDYS MARKET
513 CECIS BEAUTY SALON
517 CORREA LAWN MOWER SVC
519 A PLUS ELECTRONIC REPAIR
ADELAS BRIDAL
BACCAM GROUP
EZ CASH ADVANCE
IDM REALTY GROUP
INFINITY DEVELOPMENT
REEDS FISH N WINGS
STAR HAIRCUTS
TORRES PARTY SUPPLIES
UNIVERSAL TRAVEL
548 FURNITURE 4 LESS
552 COIN WASH PLUS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 2005

181	ROBLES, MARTHA E
186	VARGAS, HECTOR E
196	OCCUPANT UNKNOWN,
206	MARTINEZ, CARLOS
212	DICKES, JOSEPHINE
350	AGUILAR, DIEGO H
413	CHARBANEAU, LENA T
415	GORSLINE, JAMES M
417	MARTINEZ, RAMIRO
419	PODSIADLO, WALTER J
421	MENDOZA, MANUELA
438	OCCUPANT UNKNOWN,
444	SANTIAGO, NOE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 2005

444 BURTON, IMOGENE
KILLGORE ED REALTY
KILLGORE, EDWARD B
445 8933 SIERRA LLC
INLAND EMPIRE CAR WASH & AUTO
446 CHAGOLLA, DENISE
VORHIS, APRIL
447 INLAND SEW VAC
RICHARD L POWELL
456 SIERRA BAKERY & PARTY SHOP
462 GARCIA, ADRIEL
509 AMERICAN LEGION POST # 422
ANDYS MARKET
513 TRAPPED BY CAROLYN
517 CORREA LAWN MOWER SERVICE
518 CIRCLE K FOOD STORES
519 A PLUS ELECTRONIC REPAIR
BAYSIDE MORTGAGE & REALTY
E Z CASH ADVANCE
HAIR IN MOTION INC
KOMFORT ZONE HAIR SALON
REEDS FISH N WINGS
STEP BY STEP FASHION
TORRES PARTY SUPPLIES
WINGS, N T
548 FURNITURE 4 LESS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 2000

131	OCCUPANT UNKNOWN,
137	GALVAN, ROSALIE
143	BECERRA, ALICE
177	ARCOS, ROBERTO C
181	ARCIERO, MARTHA E
	ROBLES, MARTHA E
186	VARGAS, HECTOR
413	CHARBANEAU, LENA T
415	GORSLINE, JAMES M
417	FERRER, GABRIEL P
	GARCIA, RAMIRO M
	MARTINEZ, RAMIRO
419	PODSIADLO, WALTER J
421	MACIEL, CATHY A
432	LESLIE, PAULA
438	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 2000

445	INLAND EMPIRE CAR WASH
	OCCUPANT UNKNOWN,
446	OCCUPANT UNKNOWN,
447	INLAND SEW VAC
	INLAND SEWING
	POWELL, RICHARD L
	SINGER COMPANY THE
456	SIERRA BAKERY & PARTY SHOP
462	BUMP, MICHAEL
463	PURRFECT AUTO SERVICE NUMBER 22
509	ANDYS MARKET
513	RUBY STORE
517	CORREA LAWN MOWER SERVICE
518	CIRCLE K FOOD STORES
519	A PLUS ELECTRONIC REPAIR
	ANAS FASHIONS
	ANCHOR TIME CAJUN FOOD
	DANIELS PARTY SUPPLY & GIFTS
	EZ CASH ADVANCE
	HAIR IN MOTION
	STAPP HOME REALITY
	V & J INCOME TAX SERVICES
	V & J WEDDING CHAPEL
552	MILLERS OUTPOST RIALTO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 1995

181	OCCUPANT UNKNOWNN
186	VERDUZCO, MARIA L
196	ALVAREZ, ENRIQUE M
212	DICKES, J
318	GONZALEZ, MARIO G
350	EMS, WESLEY M
413	CHARBANEAU, LENA T
415	GORSLINE, JAMES M
417	GARCIA, RAMIRO M
	MARTINEZ, RAMIRO
419	PODSIADLO, WALTER J
421	FOWLER, JEFFREY W
432	OCCUPANT UNKNOWNN
438	OCCUPANT UNKNOWNN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 1995

444 CAMPANA, DOMMI J
KILLGORE REALTY
446 OCCUPANT UNKNOWNN
447 HARRIS CHIROPRACTIC
HARRIS, ERROL H
456 SIERRA BAKERY & PARTY SHOP
462 BUMP, MICHAEL
463 PURRFECT AUTO SVC
501 STOP N GO PERSONNEL OFFICE
509 ANDYS MARKET
513 MAGNIFICENT HAIR STYLES
517 RIALTO MEDICAL SUPPLIES INC
518 CIRCLE, K
STOP N GO
519 ABC BEAUTY SUPPLY
ANCHOR & SINKER
BETTER BEEPERS II
CARBURETOR EXCHANGE
HAIR IN MOTION
NAILS FOR SURE
RIALTO LEGAL SVC
552 MILLERS OUTPOST

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N ACACIA AVE 1992

111	SHEARER, H W
119	AVALOS, MANUEL
125	FERREIRA, G
	NIX, GEORGIA M
131	COURTNEY, JERRY
179	LUNA, RICHARD A
350	EMS, WESLEY M
413	CHARBANEAU, LENA T
417	GARCIA, RAMIRO M
419	PODSIADLO, WALTER J
450	ALTSTATT, MARION
481	APRILS FMLY DAY CRE
503	HANSEN, K M
532	HARRISON, RICHARD

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W FOOTHILL BLVD 1992

430	K C D REALTORS INC
436	RIALTO LEGAL SERV
444	KILLGORE REALTY
447	HARRIS ERROL H DC
456	SIERRA BAKERY&PARTY
462	BUMP, MICHAEL
501	STOP N GO MARKETS
505	BLOCK H&R
513	MAGNIFICENT HAIR
517	MEDICAL SUPPLIES
518	STOP N GO MRKT
519	A S K BEAUTY SUPPLY
	ANCHOR&SINKER
	CARBURETOR EXCHANGE
	HAIR IN MOTION
	L&M DESIGNER FSHN
	NEW ERA OF ELEGANCE
	RIALTO CREDIT BUR
	TOP NAIL

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

ACACIA AVE 1985

177	XXXX	00	
179	LUNA RICHARD A	874-0084	8
186	MORIN MARK	875-5469	7
206	XXXX	00	
212	XXXX	00	
350	EMS WESLEY M	875-4596	
413	CHARBANEAU LENA T	875-6931	
417	COOPER JAS E	874-8629	4
419	PODSIADLO WALTER J	875-7566	
421	XXXX	00	
444	HARRISON RICHARD E	820-0383	4
450	ALTSTATT MARION	875-2116	
461	KEIRN E J	875-5557	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

FOOTHILL BLVD 1985

444	KILLGORE EDW	875-8411	3
	REAL ESTATE WORLD	874-8070	+5
446	DAVIS ANTHONY A	875-2598	+5
447	XXXX	00	
456	SIERRA BAKERY&PARTY	874-4150	
462	LAUTERBORN RANDY	875-4803	9
463	LILAC DRIVE IN	875-7922	
501	STOP&GO MARKET	820-9341	3
505	BLOCK H&R INC	874-1146	3

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

FOOTHILL BLVD 1985



FOOTHILL BLVD W 92376 CONT

509	FUN FAIR PET CARE	874-1221	
513	MAGNIFICENT FIVE HR	874-3541	0
	PASILLAS SUE HAIR	874-8251	+5
517	MEDICAL SUPPLIE RIA	874-4111	+5
	RIALTO MEDICL SPLYS	874-4111	8
519	CLIP&CURL BTY SALON	874-1042	3
	DAWNS VIDEO	874-1414	3
	DAWNS VIDEO BETA	874-9833	+5
	KEMP CLEANERS	874-3203	+5
	L&R LIQUOR	820-1964	4
	SUPER PIZZA	875-5610	+5
546	XXXX	00	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

ACACIA AVE 1980

177	MOCILAC FRANK J	875-1639	
179	LUNA RICHARD A	874-0084	8
186	MORIN MARK	875-5469	7
206	XXXX	00	
212	XXXX	00	
350	EMS WESLEY M	875-4596	
413	CHARBANEAU LENA T	875-6931	
417	FISCHER C M	875-5655	
419	PODSIADLO WALTER J	875-7566	
421	FOWLER JEFF	874-1696	+0
444	XXXX	00	
450	ALTSTATT MARION	875-2116	
461	KEIRN E J	875-5557	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

FOOTHILL BLVD 1980

444	BLENIS A B	875-2940	3
★	CROWN REALTORS	875-4322	8
	KILLGORE EDW B	875-4322	8
446	XXXX	00	
447★	ABCO REAL ESTATE	875-0630	8
★	ALLSTATE REALTORS	875-0630	9
456★	SIERRA BAKERY	874-4150	4
462	LAUTERBORN MARY	875-4803	8
	LAUTERBORN RANDY	875-4803	9
463★	LILAC DRIVE IN	875-7922	
501★	STOP N GO MARKET	875-9341	
505★	H&R BLOCK	874-1146	+0
509★	FUN FAIR PET CARE	874-1221	4
513★	MAGNIFICENT 5 HAIR	874-3541	+0
517★	RIALTO MEDICL SPLYS	874-4111	8
546★	KENT CLEANERS&LNDRY	875-6602	4

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

ACACIA AVE 1976

155	PEEL MICHAEL	875-2484 3
177	MOCILAC FRANK J	875-1639
179	RAMIREZ JESSE	875-9966+6
206	MORLEY DOUGLAS	875-9952+6
212	LONG HARRY E	874-2963 3
350	EMS WESLEY M	875-4596
413	CHARBANEAU LENA T	875-6931
417	FISCHER C M	875-5655
419	PODSIADLO WALTER J	875-7566
444	WEBB J K	874-4777+6
450	ALTSTATT MARION	875-2116
461	KEIRN E J	875-5557
481	GIANCOLA LOUIS C	875-0724

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

FOOTHILL BLVD 1976

444	BLENIS A B	875-2940	3
	HILL ELMER	874-1041	5
446	KARLIN STEVE	875-3074	+6
	MITCHELL D	874-0432	+6
447	*A B C O REAL ESTATE	875-0630	+6
	*DOWD FRED REALTOR	875-4353	5
	*DOWD REALTY	875-4353	
456	*SIERRA BAKERY	874-4150	4
462	LAUTERBORN GEO E	875-4803	
463	*LILAC DRIVE IN	875-7922	
501	*STOP N GO MKT	875-9341	
505	XXXX	OO	
509	*FUN FAIR PET CARE	874-1221	4
513	*RIALTO MEDICAL SPLY	874-4111	
517	*RED CARPET REALTORS	874-1432	5
546	*KENT CLEANERS&LNDRY	875-6602	4

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

ACACIA AVE 1971

131	AYALA ROBT	875-6535
137	DILLON FRANCES V	874-1513
143	WILSON A M	874-1873
152	*TECH INDUSTRIES	877-4343
177	MOCILAC FRANK J	875-1639
350	EMS WESLEY M	875-4596
413	CHARBANEAU LENA T	875-6931
417	FISCHER C M	875-5655
419	PODSIADLO WALTER J	875-7566
444	OHEARN WM O LT	874-4124
450	ALTSTATT MARION	875-2116
461	KEIRN E J	875-5557

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

FOOTHILL BLVD 1971

438 *FRIENOS EOUCATION 875-2213
*RIALTO EOCTN ASSN 874-0375
440 *8OYER LAWRENCE M 875-5783
*8OYER REALTY R75-5783
444 CHRISTOPHFR L 875-5152
SANFORO M R74-2817
447 *OOWO FREOERICK M 875-4353
*OOWO REALTY 875-4353
462 LAUTER8ORN GEO E 875-4803
463 *LILAC ORIVE IN 875-7922
501 *STOP N GO MKT 875-9341
509 *CUSTOM COMFRT UPHLS 875-4111
513 *RIALTO MEOICAL SPLY 874-4111
517 *ALAOOIN REALTY 874-1432
546 *KENT ORY CLNG&LNORY 875-6602
552 *FEO MART 875-9996
*FEO MART AUTO CNTR 874-2111

2749-CR

Foothill Blvd & N Acacia Ave

Rialto, CA 92376

Inquiry Number: 6463208.4

April 22, 2021

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

04/22/21

Site Name:	Client Name:
2749-CR	Geotek
Foothill Blvd & N Acacia Ave	1548 North Maple Street
Rialto, CA 92376	Corona, CA 92880
EDR Inquiry # 6463208.4	Contact: Gabriela Pocius

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Geotek were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
P.O.#	NA	**Latitude:**	34.107875 34° 6' 28" North
Project:	2749-CR	**Longitude:**	-117.359991 -117° 21' 36" West
		UTM Zone:	Zone 11 North
		UTM X Meters:	466797.61
		UTM Y Meters:	3774175.54
		Elevation:	1243.95' above sea level

Maps Provided:

2012	1942
1980	1936, 1938
1975	1901
1973	1898
1966, 1967	1896
1954	
1953, 1954	
1943	

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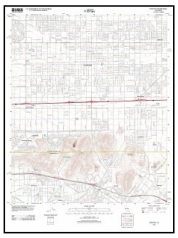
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

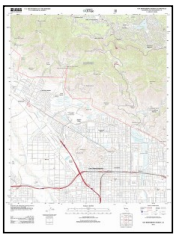
2012 Source Sheets



Devore
2012
7.5-minute, 24000



Fontana
2012
7.5-minute, 24000

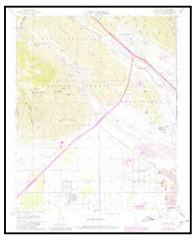


San Bernardino North
2012
7.5-minute, 24000

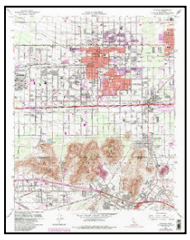


San Bernardino South
2012
7.5-minute, 24000

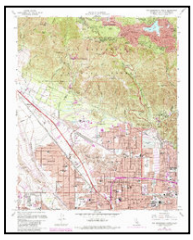
1980 Source Sheets



Devore
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Fontana
1980
7.5-minute, 24000
Aerial Photo Revised 1978

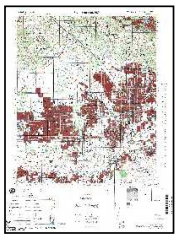


San Bernardino North
1980
7.5-minute, 24000
Aerial Photo Revised 1978



San Bernardino South
1980
7.5-minute, 24000
Aerial Photo Revised 1979

1975 Source Sheets



SAN BERNARDINO
1975
15-minute, 50000

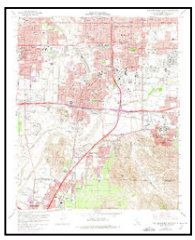
1973 Source Sheets



San Bernardino North
1973
7.5-minute, 24000
Aerial Photo Revised 1966



Fontana
1973
7.5-minute, 24000
Aerial Photo Revised 1973



San Bernardino South
1973
7.5-minute, 24000
Aerial Photo Revised 1973

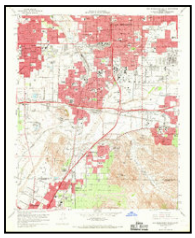
Topo Sheet Key

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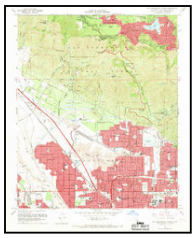
1966, 1967 Source Sheets



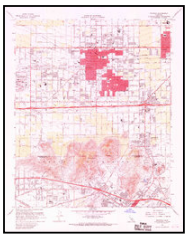
Devore
1966
7.5-minute, 24000
Aerial Photo Revised 1966



San Bernardino South
1967
7.5-minute, 24000
Aerial Photo Revised 1966



San Bernardino North
1967
7.5-minute, 24000
Aerial Photo Revised 1966



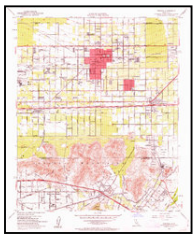
Fontana
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1954 Source Sheets

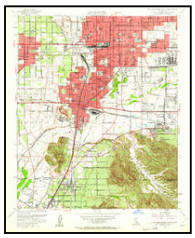


San Bernardino
1954
15-minute, 62500
Aerial Photo Revised 1952

1953, 1954 Source Sheets



Fontana
1953
7.5-minute, 24000
Aerial Photo Revised 1952



San Bernardino South
1954
7.5-minute, 24000
Aerial Photo Revised 1952



Devore
1954
7.5-minute, 24000
Aerial Photo Revised 1952



San Bernardino North
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1943 Source Sheets



Colton
1943
7.5-minute, 31680

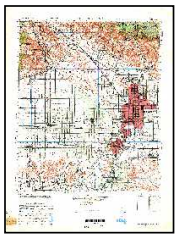


Fontana
1943
7.5-minute, 31680

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets



SAN BERNARDINO
1942
15-minute, 50000

1936, 1938 Source Sheets



Arrowhead
1936
7.5-minute, 31680

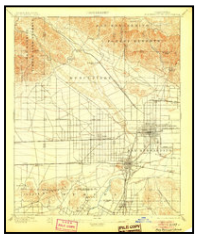


Devore
1936
7.5-minute, 31680



Colton
1938
7.5-minute, 31680

1901 Source Sheets



San Bernardino
1901
15-minute, 62500

1898 Source Sheets



San Bernardino
1898
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

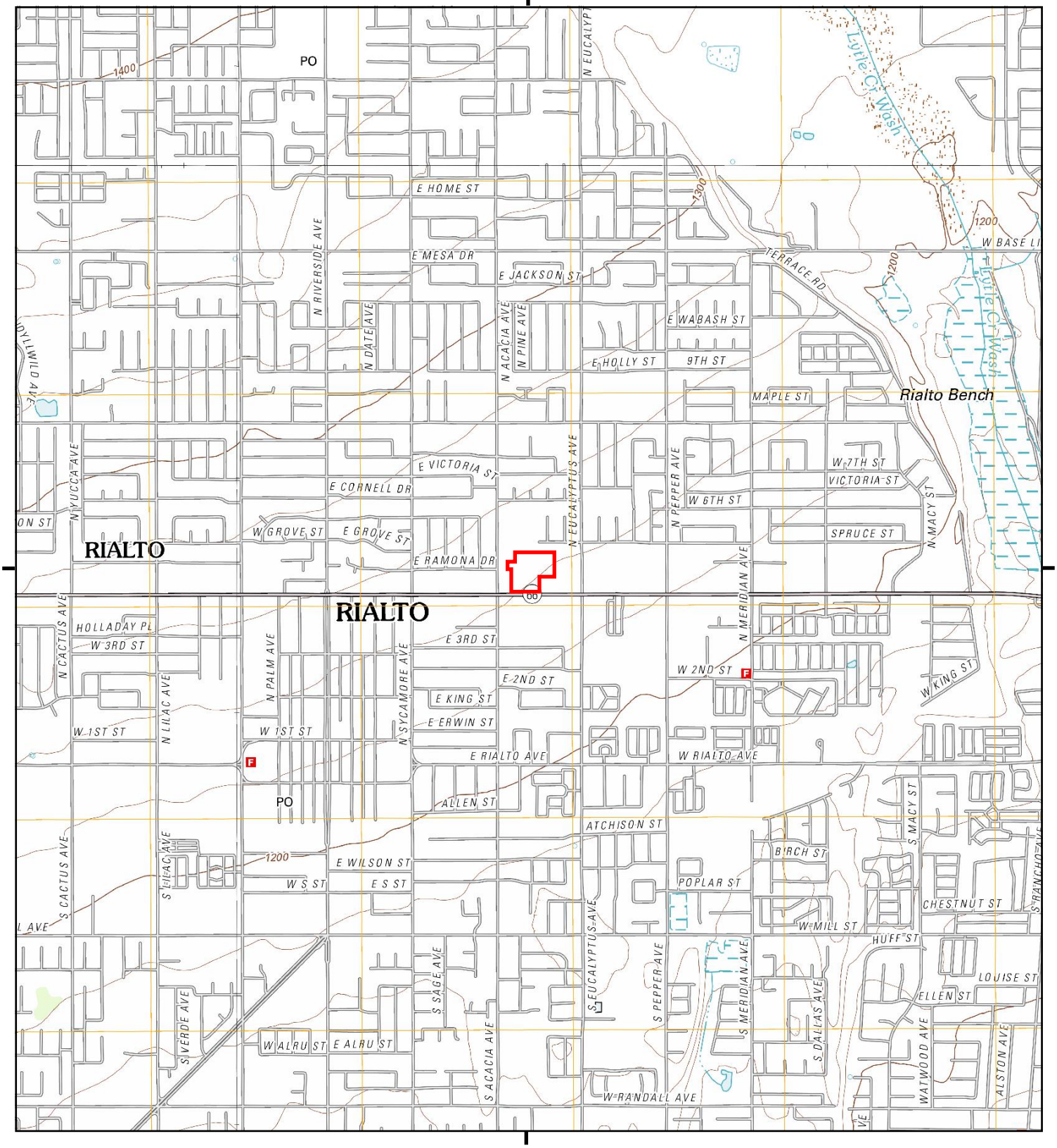
1896 Source Sheets



San Bernardino
1896
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

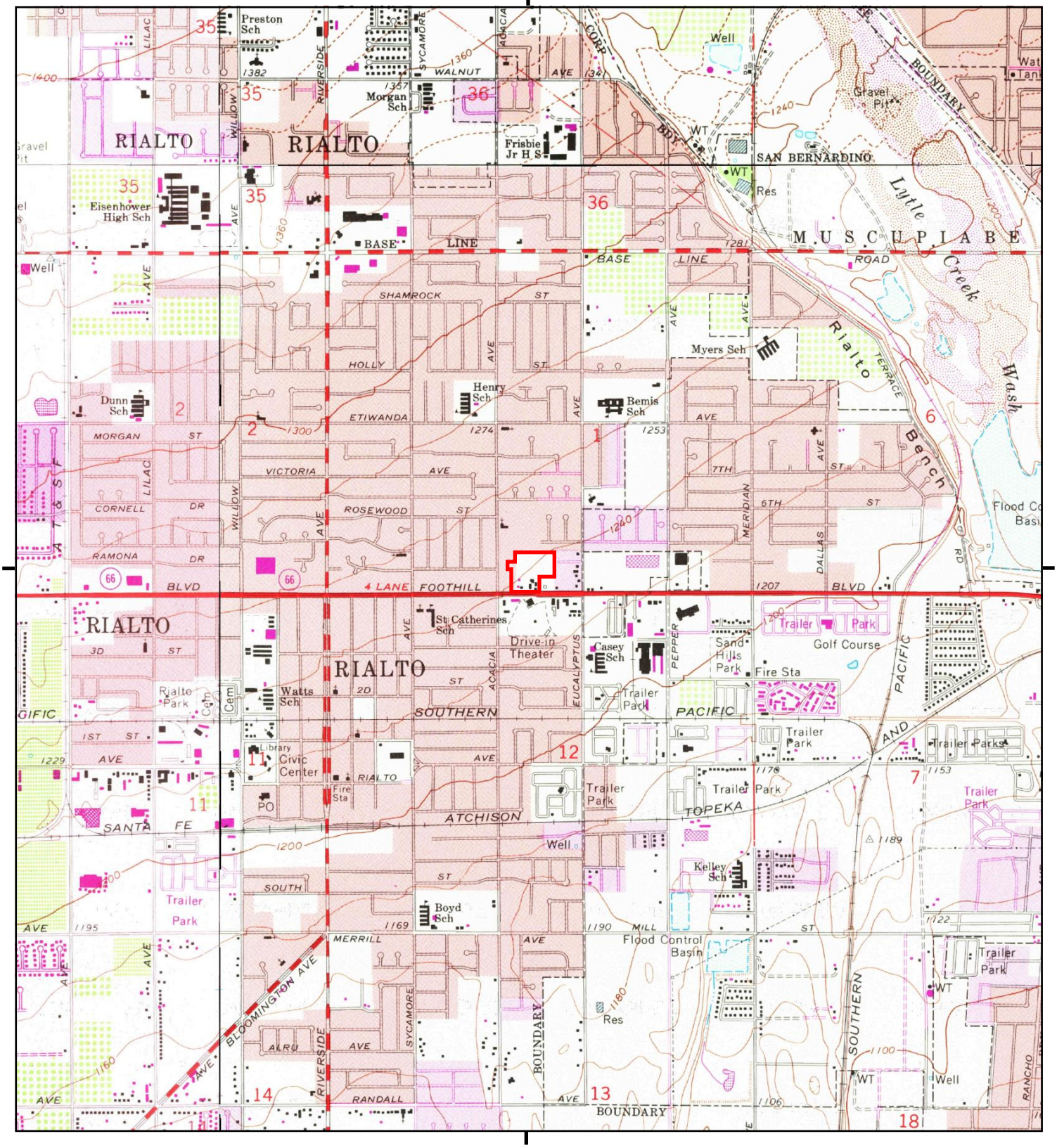
TP, San Bernardino South, 2012, 7.5-minute
NE, San Bernardino North, 2012, 7.5-minute
SW, Fontana, 2012, 7.5-minute
NW, Devore, 2012, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1980



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

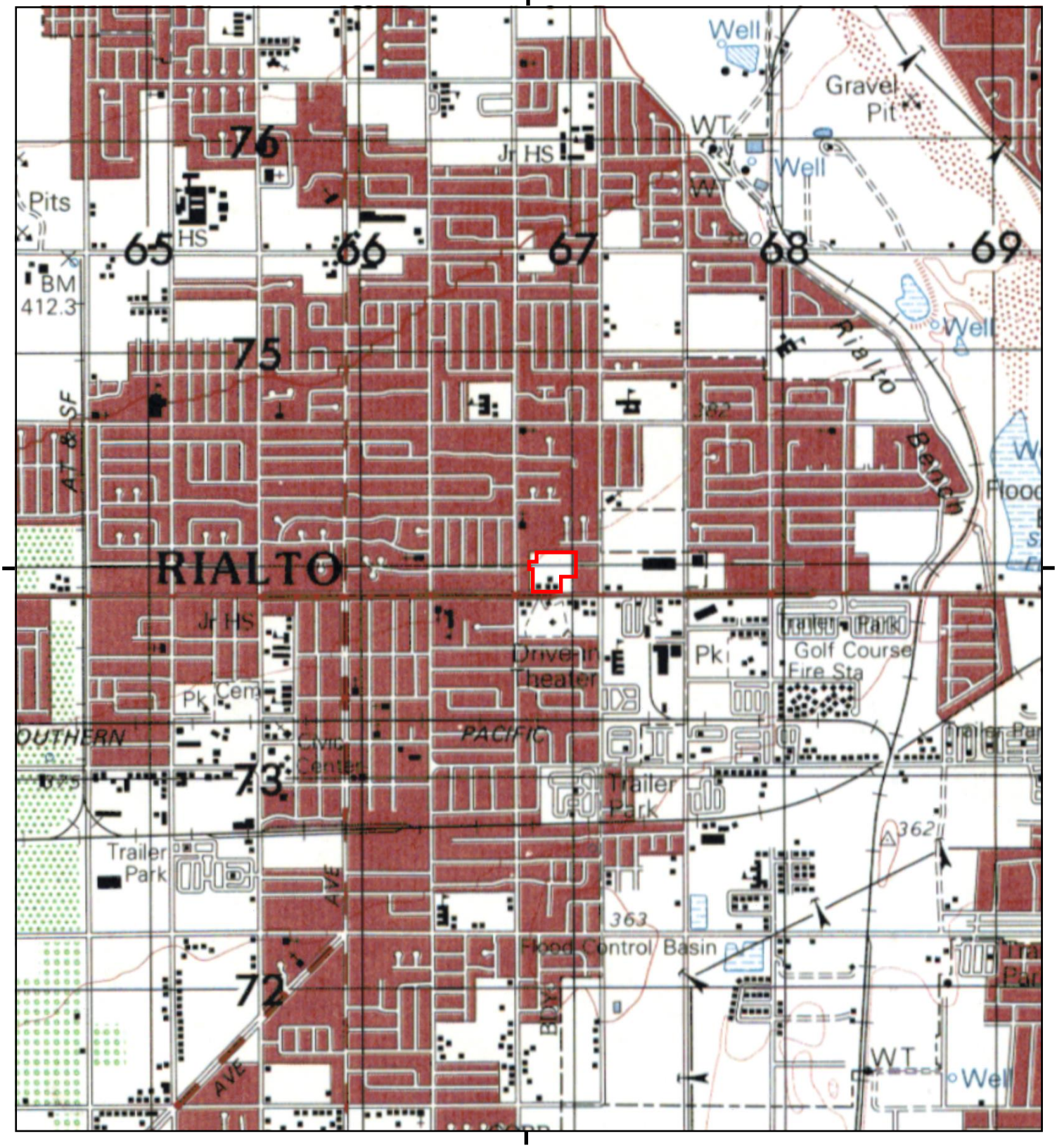
TP, San Bernardino South, 1980, 7.5-minute
NE, San Bernardino North, 1980, 7.5-minute
SW, Fontana, 1980, 7.5-minute
NW, Devore, 1980, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1975



This report includes information from the following map sheet(s).

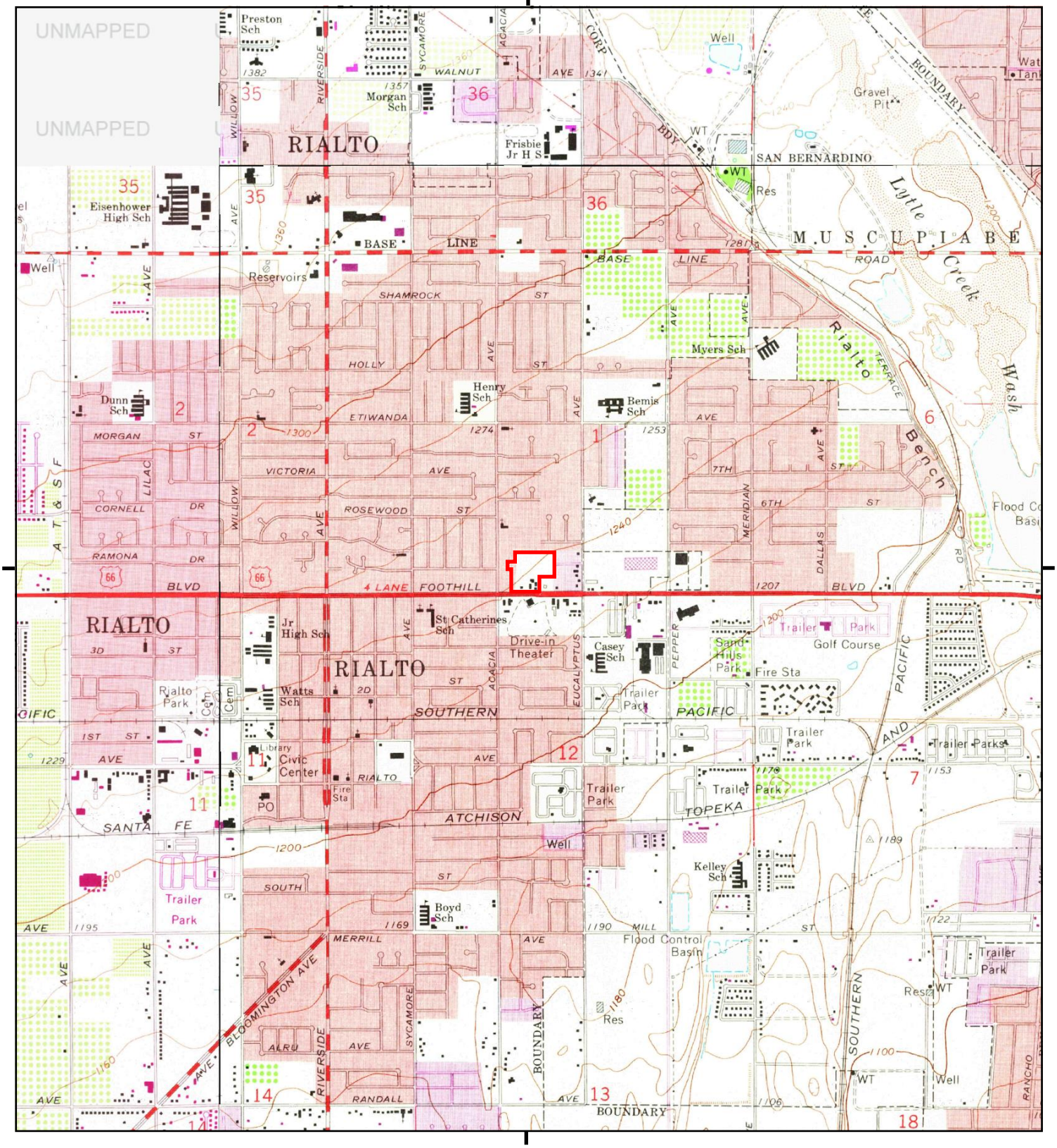
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, SAN BERNARDINO, 1975, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N



This report includes information from the following map sheet(s).

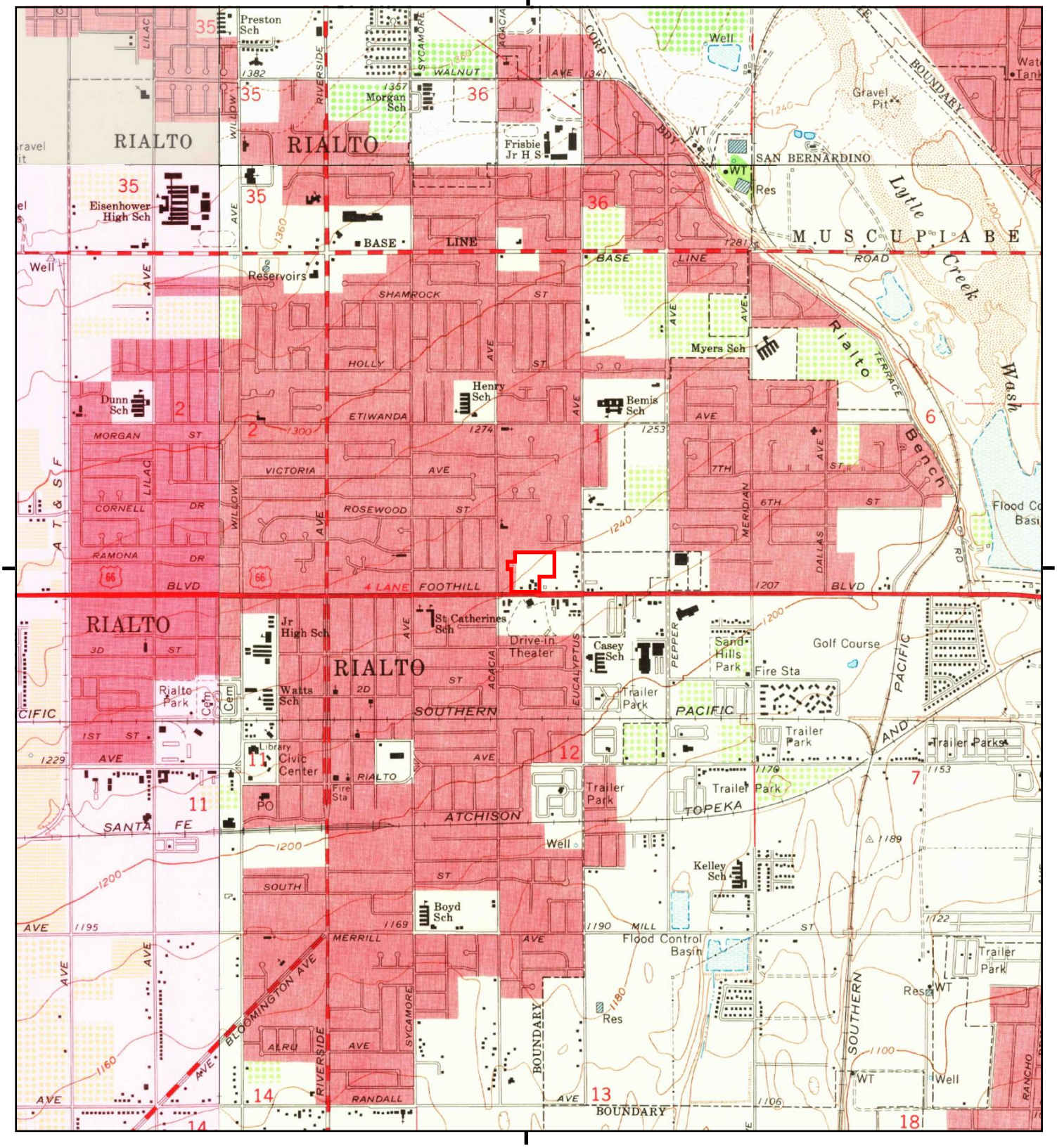
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino South, 1973, 7.5-minute
NE, San Bernardino North, 1973, 7.5-minute
SW, Fontana, 1973, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

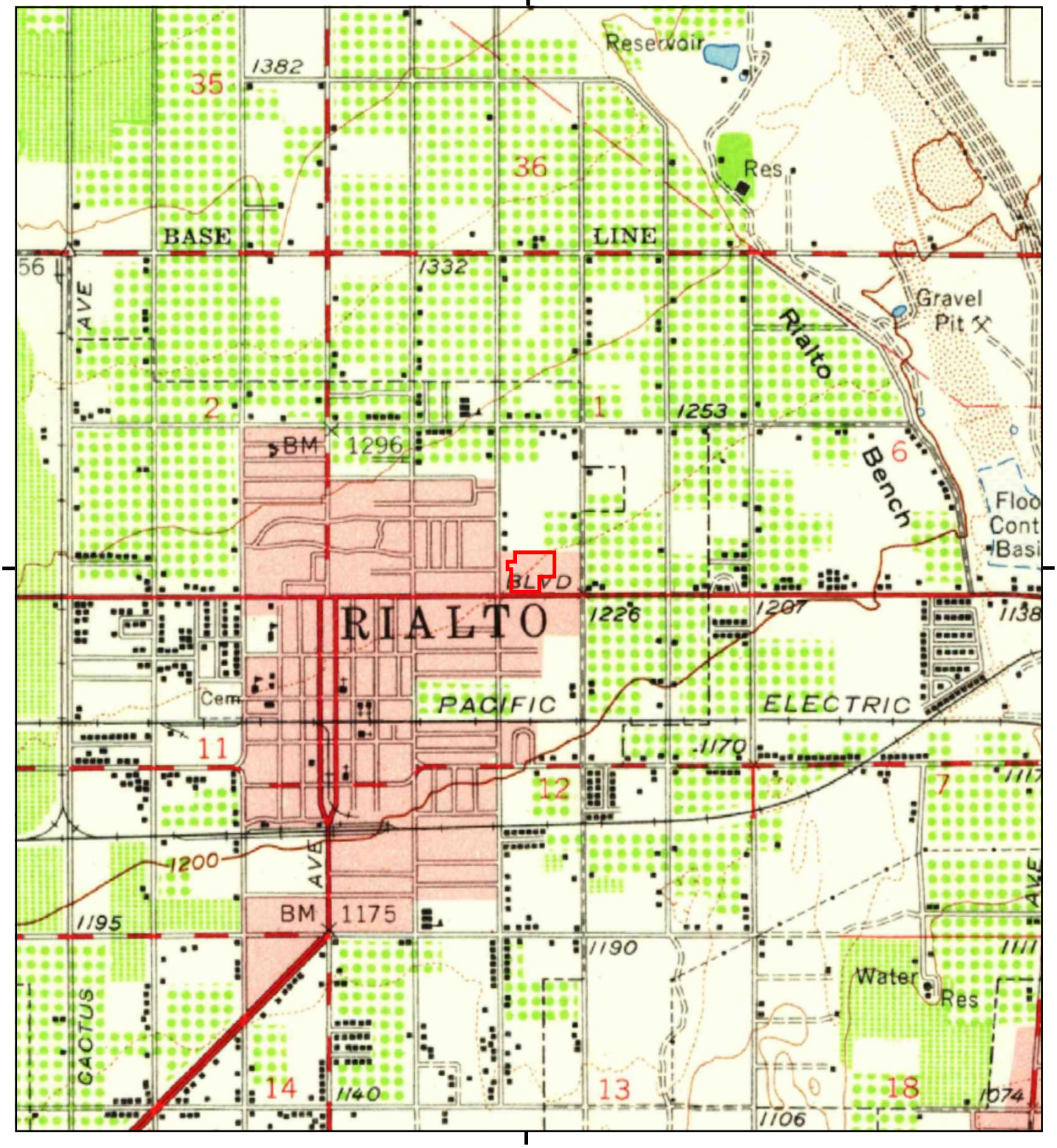
TP, San Bernardino South, 1967, 7.5-minute
NE, San Bernardino North, 1967, 7.5-minute
SW, Fontana, 1967, 7.5-minute
NW, Devore, 1966, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

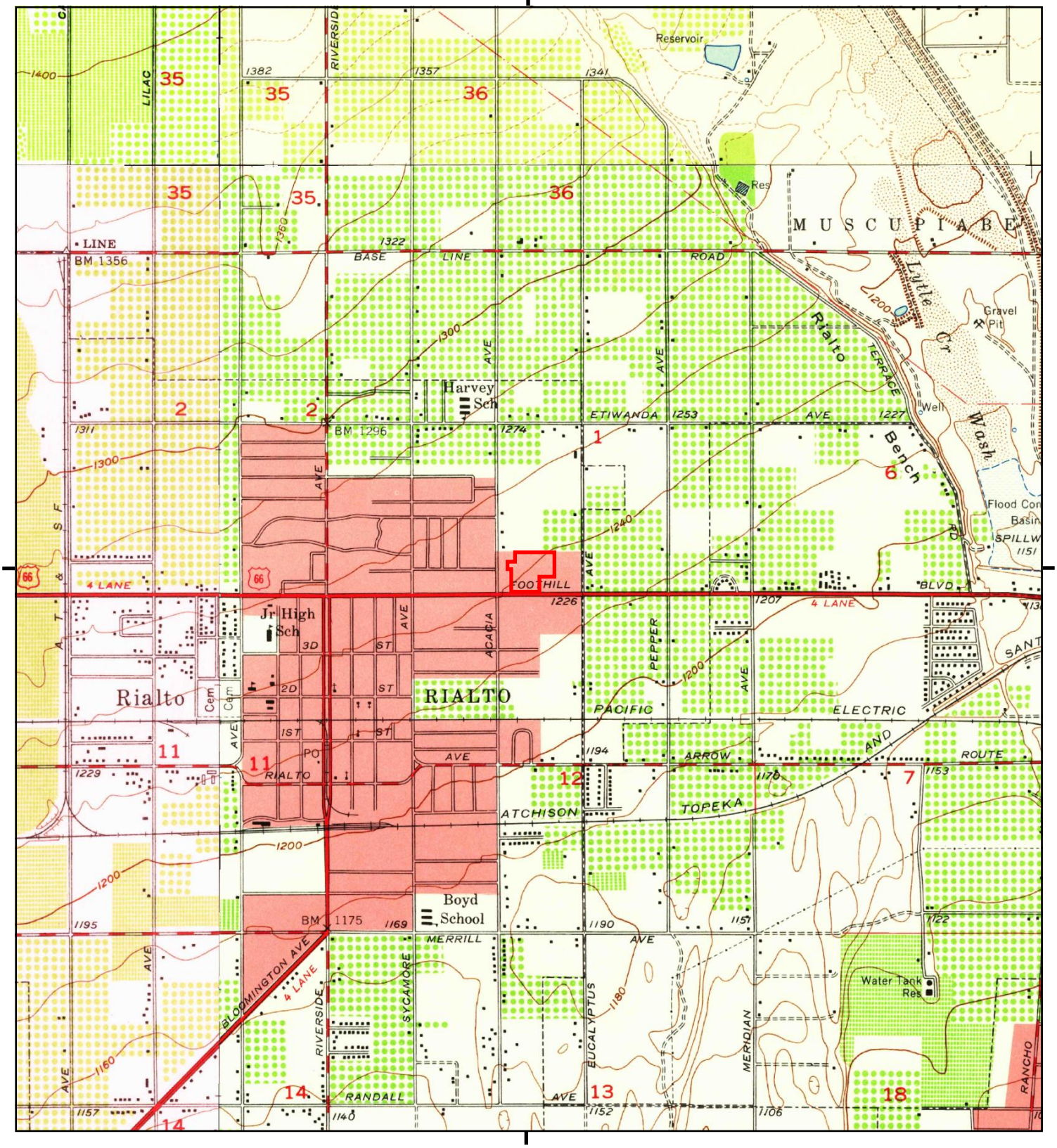
TP, San Bernardino, 1954, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1953, 1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

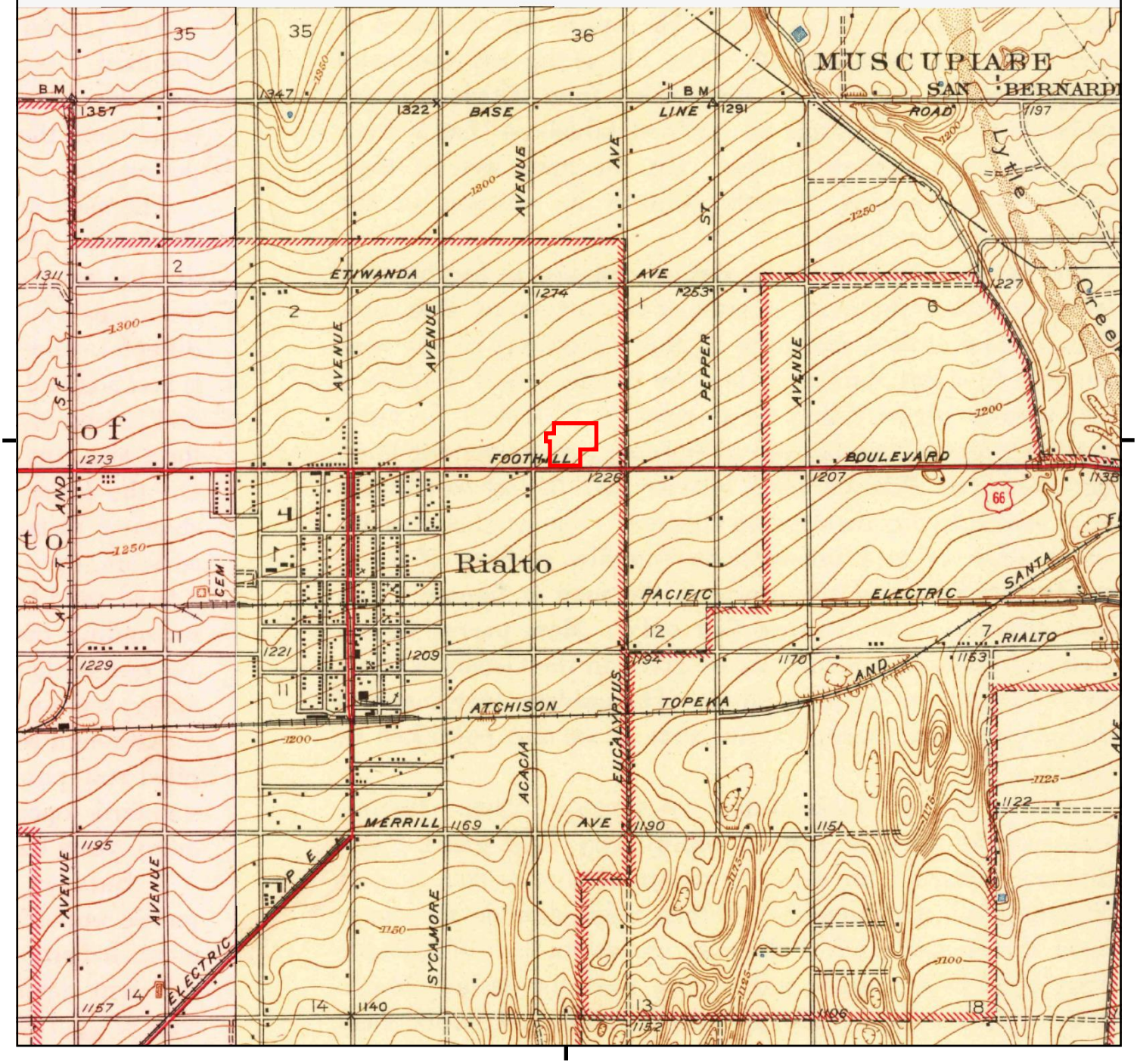
TP, San Bernardino South, 1954, 7.5-minute
NE, San Bernardino North, 1954, 7.5-minute
SW, Fontana, 1953, 7.5-minute
NW, Devore, 1954, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1943



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

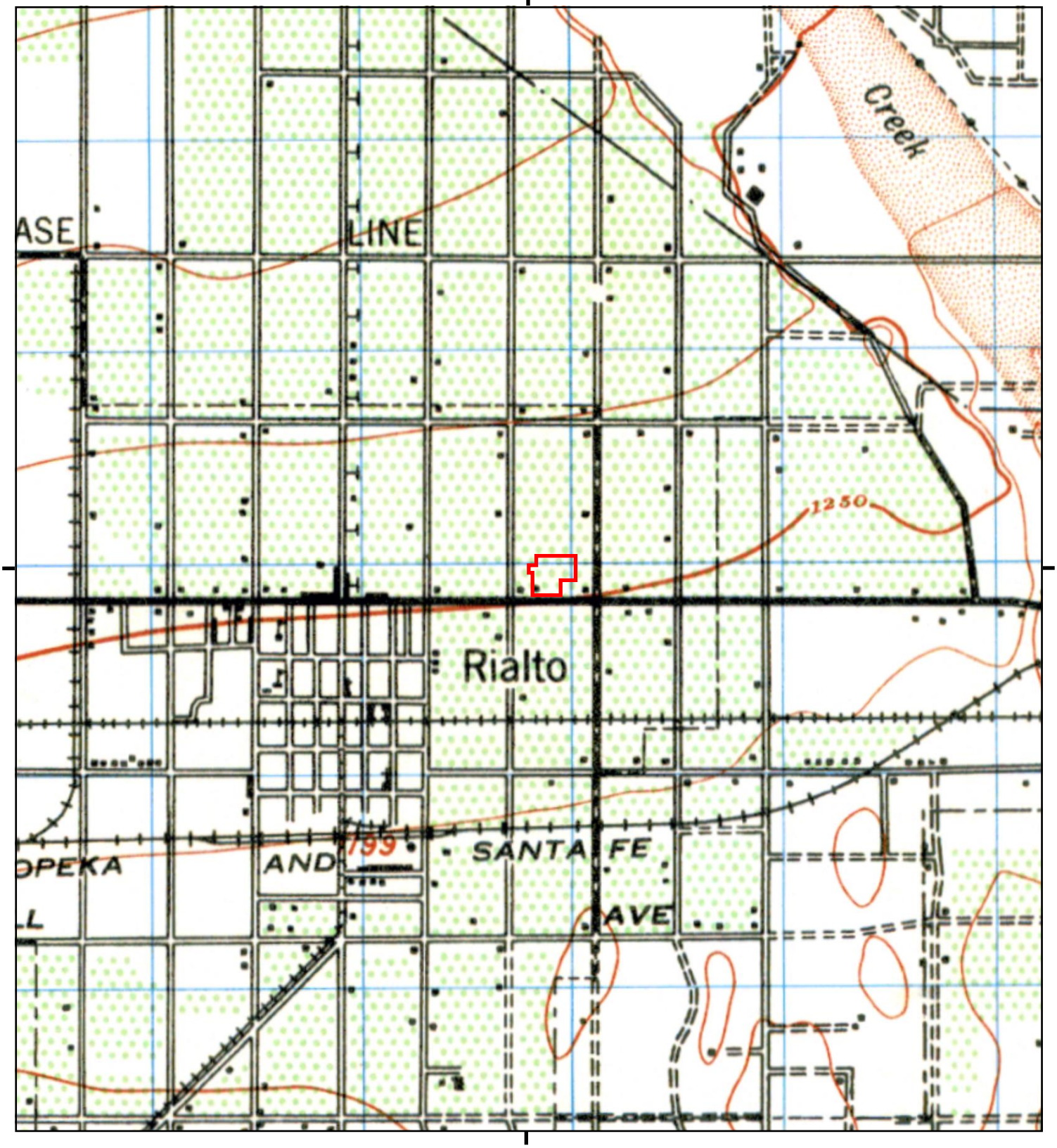
TP, Colton, 1943, 7.5-minute
SW, Fontana, 1943, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

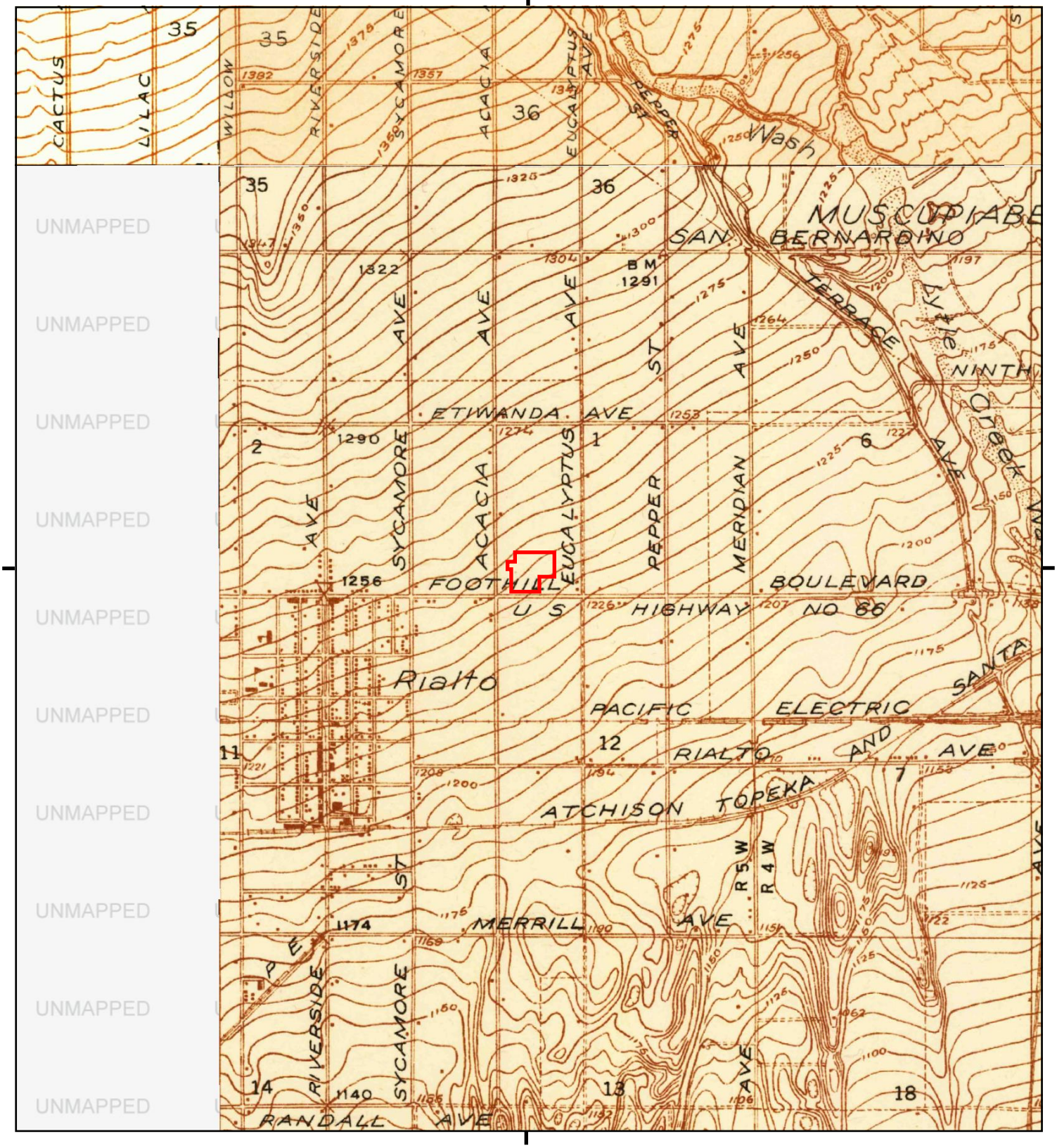
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, SAN BERNARDINO, 1942, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N



This report includes information from the following map sheet(s).

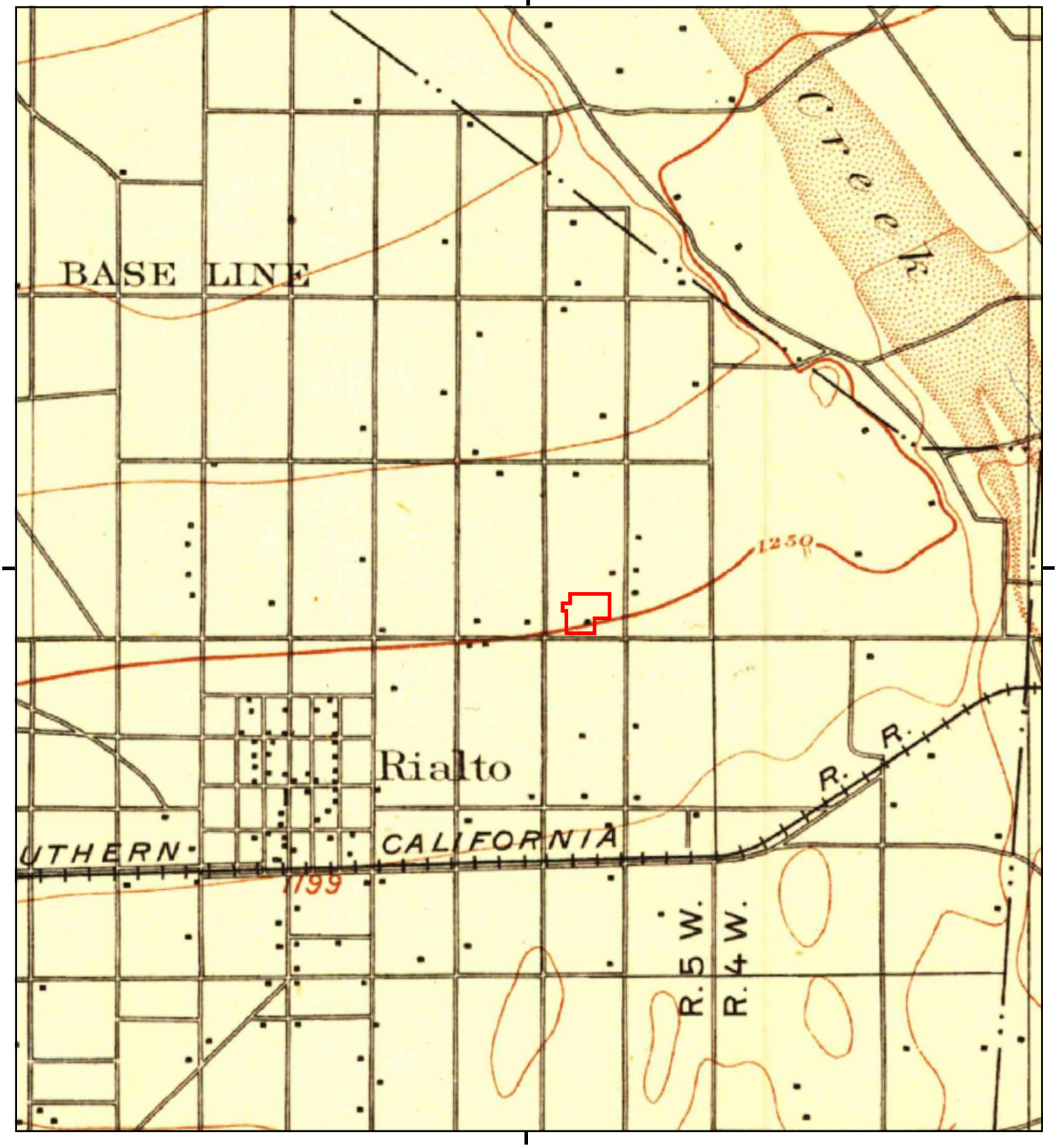
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Colton, 1938, 7.5-minute
NE, Arrowhead, 1936, 7.5-minute
NW, Devore, 1936, 7.5-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

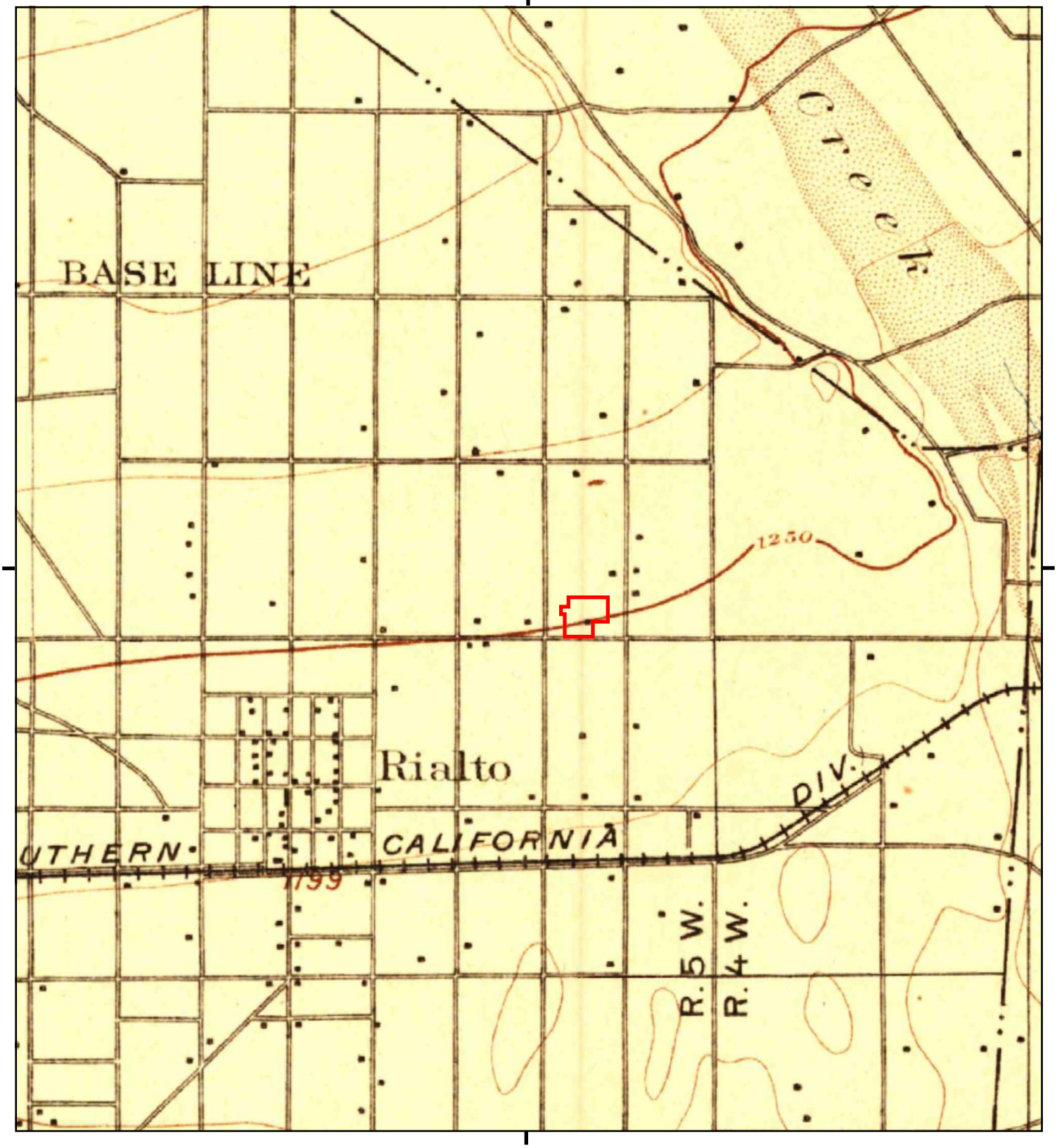
TP, San Bernardino, 1901, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

Historical Topo Map

1898



This report includes information from the following map sheet(s).

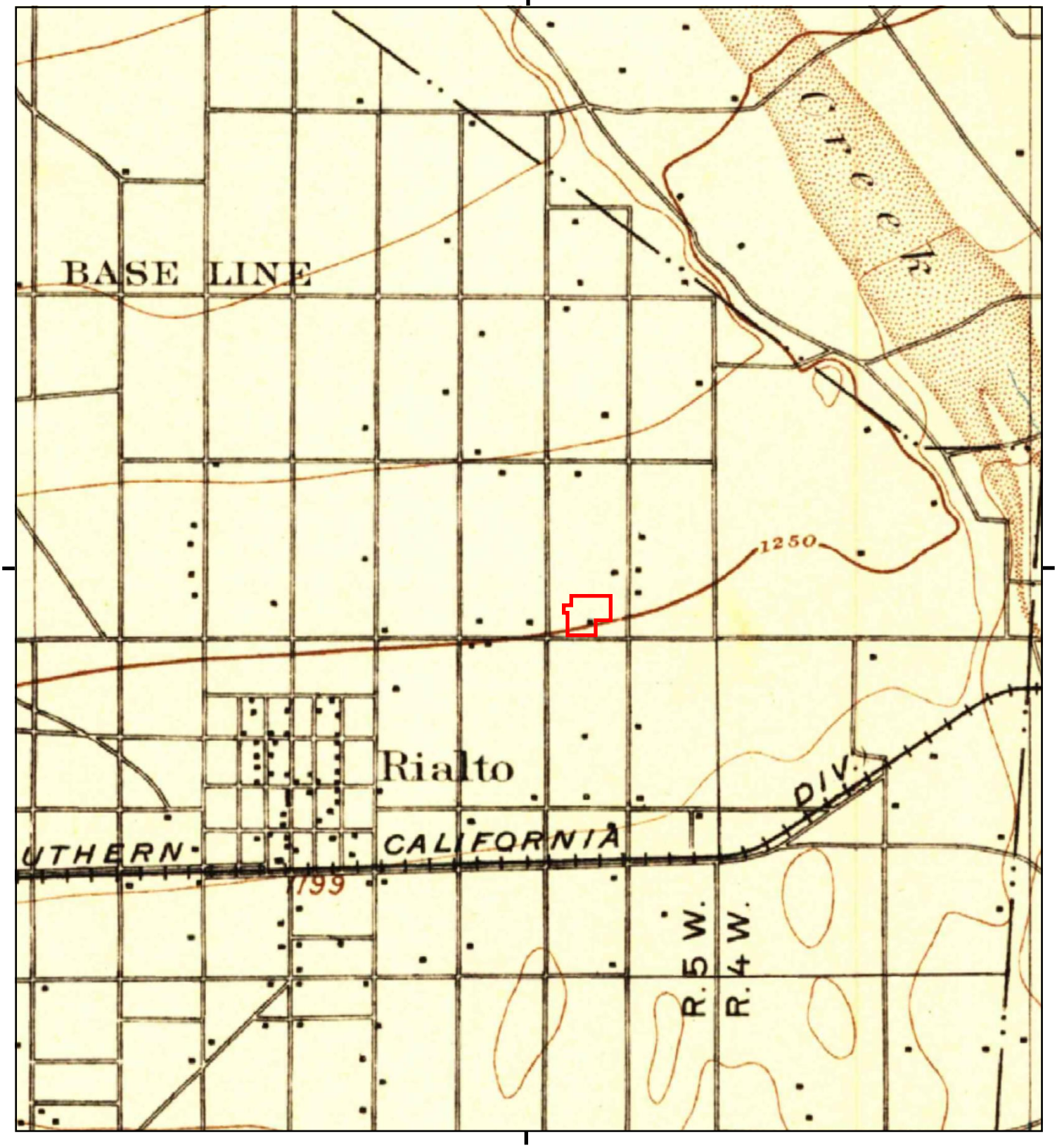
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1898, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1896, 15-minute

SITE NAME: 2749-CR
ADDRESS: Foothill Blvd & N Acacia Ave
Rialto, CA 92376
CLIENT: Geotek

N

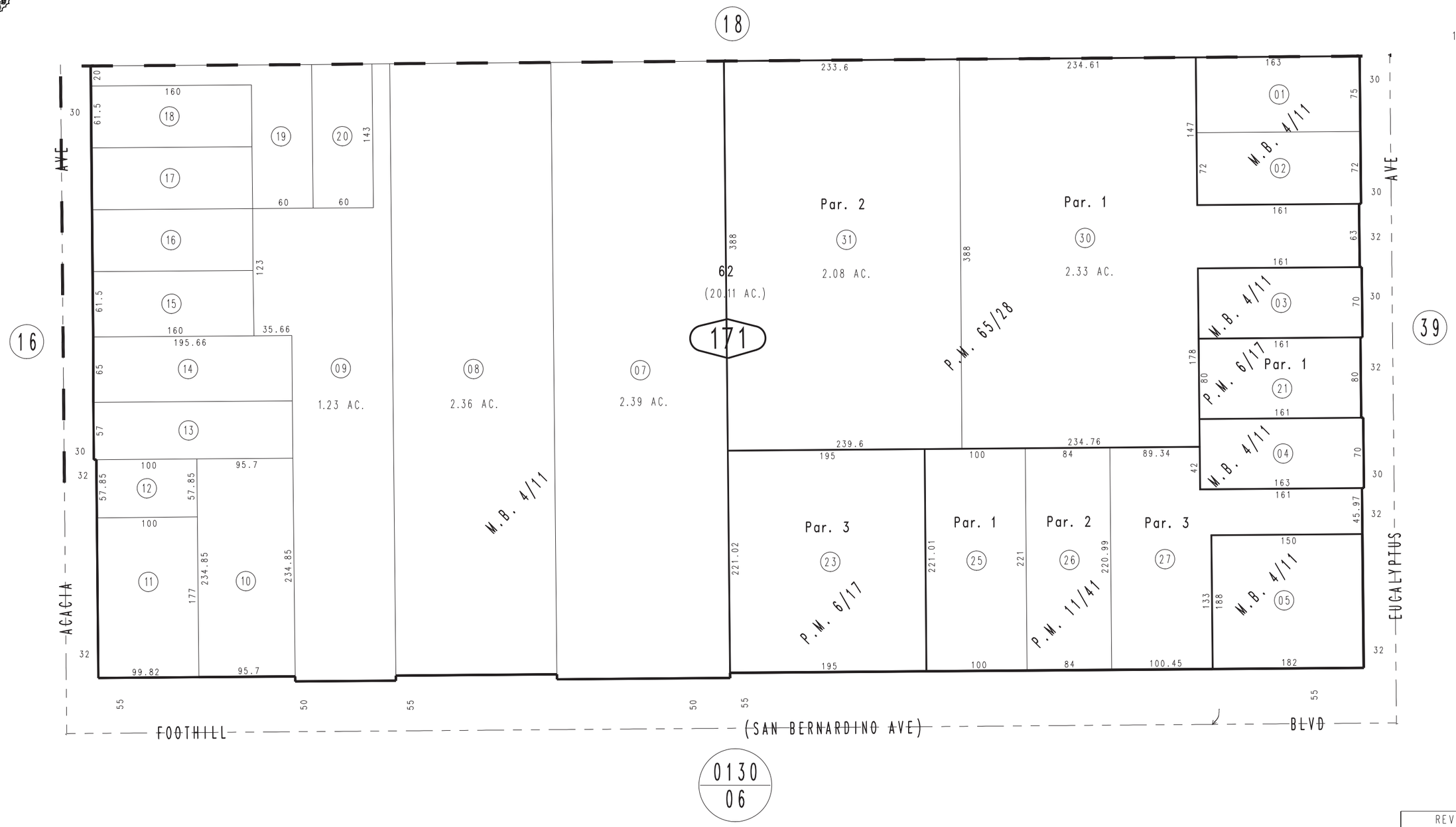
THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY.

Town of Rialto & Adj. Subs.
M.B. 4/11

City of Rialto
Tax Rate Area
6111

0133 - 17

1" = 100'



0130
06

Parcel Map No. 6899, P.M. 65/28
Parcel Map No. 1403, P.M. 11/41
Ptn. Parcel Map No. 648, P.M. 6/17

February 2004

Assessor's Map
Book 0133 Page 17
San Bernardino County

REVISED

Property Information Management System

San Bernardino County

Office of the Assessor

PIMS PACKAGE REPORT FOR PARCEL 0133-171-07-0000

Property Information

Property Address (Main Situs) Protected per CA. Govt. Code Sect. 6254.21
Protected per CA. Govt. Code Sect. 6254.21

Owner and Mailing Address YASMEH, BEHZAD
MISHAEL, MITRA
Protected per CA. Govt. Code Sect. 6254.21
Protected per CA. Govt. Code Sect. 6254.21

Effective Date 06/24/2019

Parcel 0133171070000
Parcel Status ACTIVE
Parcel Type REAL PROPERTY
Property ID
Tax Status ASSESSED BY COUNTY
Use Code VACANT
Land Access PUBLIC PAVED
Size 1.501 TO 3.500 ACRES
Land Type MULTIPLE ZONINGS
District FONTANA
Resp Group REAL PROPERTY
Resp Unit COMMERCIAL ZONE OR USE

Current Owners

Name YASMEH, BEHZAD

R/I SPOUSAL
% Int 50.0000000
Type BILLED OWNER
Acquisition Date 05/30/2019
Document Date 06/12/2019
Inactive Date NONE

Document Numbers
20190191854

Name MISHAEL, MITRA

R/I SPOUSAL
% Int 50.0000000
Type JOINT MAIL OWNER
Acquisition Date 05/30/2019
Document Date 06/12/2019
Inactive Date NONE

Document Numbers
20190191854

Legal Parcel Map

Parcel Map	Parcel Nbr	Unit	Book	Page
	0133171070000			

Legal Description

TOWN OF R1ALTO AND ADJ SUBS E 1/2 E 1/2 W 1/2 LOT 62 AND E 5 FT W 1/2 E 1/2 W 1/2 LOT 62 EX H1GHWAYS 2.39 AC

No Legal Reason for Change Found

No Active Homeowner's Exemptions Found

Prior Roll History

Year: 2020

TRA	6111	**Land Value**	1,380,060
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	1,380,060
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**1,380,060**

Year: 2019

TRA	6111	**Land Value**	1,379,570
Supplement	YES	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	AZURE ROUTE 66 PLAZA PARTNERS LLC	**Total Penalties**	0
Joint Owner		**Total Value**	1,379,570
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**1,379,570**

Year: 2018

TRA	6111	**Land Value**	1,352,520
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	AZURE ROUTE 66 PLAZA PARTNERS LLC	**Total Penalties**	0
Joint Owner		**Total Value**	1,352,520
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**1,352,520**

Year: 2017

TRA	6111	**Land Value**	1,326,000
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	AZURE ROUTE 66 PLAZA PARTNERS LLC	**Total Penalties**	0
Joint Owner		**Total Value**	1,326,000
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**1,326,000**

Year: 2016

TRA	6111	**Land Value**	273,177
Supplement	YES	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	273,177
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**273,177**

Year: 2015

TRA	6111	**Land Value**	269,074
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	269,074
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**269,074**

Year: 2014

TRA	6111	**Land Value**	263,803
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	263,803
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**263,803**

Year: 2013

TRA	6111	**Land Value**	262,611
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	262,611
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**262,611**

Year: 2012

TRA	6111	**Land Value**	257,462
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	257,462
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**257,462**

Year: 2011

TRA	6111	**Land Value**	208,200
Supplement	NO	**Improvement Value**	0
Correction Date	09/25/2013	**Improvement Penalty**	0
Correction Code	530D	**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	208,200
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**208,200**

Year: 2010

TRA	6111	**Land Value**	250,528
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	250,528
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**250,528**

Year: 2009

TRA	6111	**Land Value**	251,123
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	251,123
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**251,123**

Year: 2008

TRA	6111	**Land Value**	246,199
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	246,199
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**246,199**

Year: 2007

TRA	6111	**Land Value**	241,372
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	241,372
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**241,372**

Year: 2006

TRA	6111	**Land Value**	236,639
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	236,639
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**236,639**

Year: 2005

TRA	6111	**Land Value**	231,999
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	231,999
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**231,999**

Year: 2004

TRA	6111	**Land Value**	227,450
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	YASMEH, BEHZAD	**Total Penalties**	0
Joint Owner	MISHAEL, MITRA	**Total Value**	227,450
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**227,450**

Year: 2003

TRA	6111	**Land Value**	603,059
Supplement	YES	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	603,059
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**603,059**

Year: 2002

TRA	6000	**Land Value**	591,234
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	591,234
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**591,234**

Year: 2001

TRA	6000	**Land Value**	579,641
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	579,641
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**579,641**

Year: 2000

TRA	6000	**Land Value**	568,275
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	568,275
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**568,275**

Year: 1999

TRA	6000	**Land Value**	557,132
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	557,132
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**557,132**

Year: 1998

TRA	6000	**Land Value**	547,013
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	547,013
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**547,013**

Year: 1997

TRA	6000	**Land Value**	536,287
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	536,287
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**536,287**

Year: 1996

TRA	6000	**Land Value**	525,772
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	525,772
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**525,772**

Year: 1995

TRA	6000	**Land Value**	520,000
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EISENHOWER MEDICAL CENTER	**Total Penalties**	0
Joint Owner		**Total Value**	520,000
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**520,000**

Year: 1994

TRA	6000	**Land Value**	541,008
Supplement	YES	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	STANDARD MORTGAGE CO INC	**Total Penalties**	0
Joint Owner		**Total Value**	541,008
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**541,008**

Year: 1993

TRA	6000	**Land Value**	530,400
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	STANDARD MORTGAGE CO INC	**Total Penalties**	0
Joint Owner		**Total Value**	530,400
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**530,400**

Year: 1992

TRA	6000	**Land Value**	368,302
Supplement	NO	**Improvement Value**	0
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EAST POINTE PARTNERS	**Total Penalties**	0
Joint Owner		**Total Value**	368,302
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**368,302**

Year: 1991

TRA	6000	**Land Value**	361,080
Supplement	NO	**Improvement Value**	31,620
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EAST POINTE PARTNERS	**Total Penalties**	0
Joint Owner		**Total Value**	392,700
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**392,700**

Year: 1990

TRA	6000	**Land Value**	354,000
Supplement	NO	**Improvement Value**	31,000
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	EAST POINTE PARTNERS	**Total Penalties**	0
Joint Owner		**Total Value**	385,000
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**385,000**

Year: 1989

TRA	6000	**Land Value**	51,744
Supplement	NO	**Improvement Value**	20,906
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	72,650
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**72,650**

Year: 1988

TRA	6000	**Land Value**	50,729
Supplement	NO	**Improvement Value**	20,496
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	71,225
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**71,225**

Year: 1987

TRA	6000	**Land Value**	49,734
Supplement	NO	**Improvement Value**	20,094
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	69,828
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**69,828**

Year: 1986

TRA	6000	**Land Value**	48,759
Supplement	NO	**Improvement Value**	19,700
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	68,459
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**68,459**

Year: 1985

TRA	6000	**Land Value**	47,803
Supplement	NO	**Improvement Value**	19,314
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	67,117
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**67,117**

Year: 1984

TRA	6000	**Land Value**	46,866
Supplement	NO	**Improvement Value**	18,935
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	65,801
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**65,801**

Year: 1983

TRA	6000	**Land Value**	45,947
Supplement	NO	**Improvement Value**	18,564
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	64,511
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**64,511**

Year: 1982

TRA	6000	**Land Value**	45,492
Supplement	NO	**Improvement Value**	18,380
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner	HERRINGTON, ERBY L	**Total Penalties**	0
Joint Owner	HERRINGTON, PERNINAH A	**Total Value**	63,872
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**63,872**

Year: 1981

TRA	0	**Land Value**	44,600
Supplement	NO	**Improvement Value**	18,020
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner		**Total Penalties**	0
Joint Owner		**Total Value**	62,620
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**62,620**

Year: 1980

TRA	0	**Land Value**	10,930
Supplement	NO	**Improvement Value**	4,415
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner		**Total Penalties**	0
Joint Owner		**Total Value**	15,345
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**15,345**

Year: 1979

TRA	0	**Land Value**	10,715
Supplement	NO	**Improvement Value**	4,330
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner		**Total Penalties**	0
Joint Owner		**Total Value**	15,045
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**15,045**

Year: 1978

TRA	0	**Land Value**	10,505
Supplement	NO	**Improvement Value**	4,245
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	0
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner		**Total Penalties**	0
Joint Owner		**Total Value**	14,750
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**14,750**

Year: 1976

TRA	0	**Land Value**	9,900
Supplement	NO	**Improvement Value**	4,000
Correction Date		**Improvement Penalty**	0
Correction Code		**Pers Prop Value**	400
Original Parcel	0133171070000	**Pers Prop Penalty**	0
Billed Owner		**Total Penalties**	0
Joint Owner		**Total Value**	14,300
		HOX Exemptions	0
		Special Exemptions	0
		Net Value	**14,300**

Parcel History

		Multi Parcel List
Event Date	05/30/2019	
Event Group/Type	TRANSFER - 100% PER RECORDED DOCUMENT	0133171070000 TOT-TRF
Multi Parcel	Yes	0133171080000 TOT-TRF
		0133171090000 TOT-TRF
		0133171310000 TOT-TRF

		Multi Parcel List
Event Date	05/18/2016	
Event Group/Type	TRANSFER - 100% PER RECORDED DOCUMENT	0133171070000 TOT-TRF
Multi Parcel	Yes	0133171080000 TOT-TRF
		0133171310000 TOT-TRF

		Multi Parcel List
Event Date	12/31/2012	
Event Group/Type	REVIEW - PROP 8 INITIATED BY ASSESSOR	
Multi Parcel	No	

		Multi Parcel List
Event Date	12/31/2011	
Event Group/Type	REVIEW - PROP 8 INITIATED BY ASSESSOR	
Multi Parcel	No	

		Multi Parcel List
Event Date	12/31/2010	
Event Group/Type	REVIEW - PROP 8 INITIATED BY TAXPAYER	
Multi Parcel	No	

		Multi Parcel List
Event Date	11/21/2003	
Event Group/Type	TRANSFER - 100% PER RECORDED DOCUMENT	0133171070000 TOT-TRF
Multi Parcel	Yes	0133171080000 TOT-TRF
		0133171310000 TOT-TRF

		Multi Parcel List
Event Date	01/01/2003	
Event Group/Type	TRA EVENT - CHANGE TRA ON SINGLE OR MULTIPLE PARCE	0127031020000 TRA-RNG
Multi Parcel	Yes	0127031030000 TRA-RNG
		0127031040000 TRA-RNG
		0127031050000 TRA-RNG
		0127251030000 TRA-RNG
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Event Date	01/05/1995	**Multi Parcel List**
Event Group/Type	TRANSFER - WORKED IN OLD SYSTEM (100% OR PARTIAL)	
Multi Parcel	No	

Event Date	04/06/1994	**Multi Parcel List**
Event Group/Type	TRANSFER - WORKED IN OLD SYSTEM (100% OR PARTIAL)	
Multi Parcel	No	

Event Date	04/28/1992	**Multi Parcel List**
Event Group/Type	TRANSFER - WORKED IN OLD SYSTEM (100% OR PARTIAL)	
Multi Parcel	No	

Event Date	05/08/1991	**Multi Parcel List**
Event Group/Type	NEW CONST - IMPS REMOVED (IN OLD PIMS)	
Multi Parcel	No	

Event Date	01/18/1990	**Multi Parcel List**
Event Group/Type	TRANSFER - WORKED IN OLD SYSTEM (100% OR PARTIAL)	
Multi Parcel	No	

Event Date	02/28/1973	**Multi Parcel List**
Event Group/Type	CREATE - WORKED IN OLD SYSTEM (NONREPAR)	
Multi Parcel	No	

Ownership History

Owner Name: MISHAEL, MITRA

		Document Numbers
R/I	SPOUSAL	20190191854
% Int	50.0000000	
Type	JOINT MAIL OWNER	
Acquisition Date	05/30/2019	
Document Date	06/12/2019	
Inactive Date	NONE	

Owner Name: YASMEH, BEHZAD

		Document Numbers
R/I	SPOUSAL	20190191854
% Int	50.0000000	
Type	BILLED OWNER	
Acquisition Date	05/30/2019	
Document Date	06/12/2019	
Inactive Date	NONE	

Owner Name: AZURE ROUTE 66 PLAZA PARTNERS LLC

		Document Numbers
R/I	SOLE OWNER	20160192843
% Int	100.0000000	
Type	BILLED OWNER	
Acquisition Date	05/18/2016	
Document Date	05/18/2016	
Inactive Date	05/29/2019	

Owner Name: MISHAEL, MITRA

		Document Numbers
R/I	SPOUSAL	20030875265
% Int	50.0000000	
Type	JOINT MAIL OWNER	
Acquisition Date	11/21/2003	
Document Date	11/21/2003	
Inactive Date	05/17/2016	

Owner Name: YASMEH, BEHZAD

R/I	SPOUSAL
% Int	50.0000000
Type	BILLED OWNER
Acquisition Date	11/21/2003
Document Date	11/21/2003
Inactive Date	05/17/2016

Document Numbers

20030875265

Owner Name: EISENHOWER MEDICAL CENTER

R/I	CORPORATION
% Int	100.0000000
Type	BILLED OWNER
Acquisition Date	NONE
Document Date	01/05/1995
Inactive Date	11/20/2003

Document Numbers

9500269900000

Owner Name: TORRANCE, WILLIAM S

R/I	SOLE OWNER
% Int	100.0000000
Type	BILLED OWNER
Acquisition Date	NONE
Document Date	04/06/1994
Inactive Date	01/04/1995

Document Numbers

9416246400000

Owner Name: STANDARD MORTGAGE CO INC

R/I	CORPORATION
% Int	100.0000000
Type	BILLED OWNER
Acquisition Date	NONE
Document Date	04/28/1992
Inactive Date	04/05/1994

Document Numbers

9217803000000

Owner Name: EAST POINTE PARTNERS

R/I	PARTNERSHIP
% Int	100.0000000
Type	BILLED OWNER
Acquisition Date	NONE
Document Date	01/18/1990
Inactive Date	04/27/1992

Document Numbers

9002184100000

Owner Name: HERRINGTON, ERBY L

R/I	UNKNOWN
% Int	0.0000000
Type	BILLED OWNER
Acquisition Date	NONE
Document Date	NONE
Inactive Date	01/17/1990

Document Numbers

Owner Name: HERRINGTON, PERNINAH A

R/I	UNKNOWN
% Int	0.0000000
Type	JOINT MAIL OWNER
Acquisition Date	NONE
Document Date	NONE
Inactive Date	01/17/1990

Document Numbers

Supplement History

Supplement Date: 05/30/2019

Roll Type	REGULAR SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	2019	**New Land**	1,353,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	1,379,570
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6111	**Old HOX**	0
NOPIC Date	11/24/2019	**Supp HOX**	0
Extract Date	01/03/2020	**Special Exem**	0
Months Prorated	12	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**(26,570)**
Billed Owner	YASMEH, BEHZAD		
Joint Owner	MISHAEL, MITRA		

Supplement Date: 05/30/2019

Roll Type	INTERIM SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	2019	**New Land**	1,353,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	1,352,520
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6111	**Old HOX**	0
NOPIC Date	11/24/2019	**Supp HOX**	0
Extract Date	01/03/2020	**Special Exem**	0
Months Prorated	1	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**480**
Billed Owner	YASMEH, BEHZAD		
Joint Owner	MISHAEL, MITRA		

Supplement Date: 05/18/2016

Roll Type	REGULAR SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	2016	**New Land**	1,300,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	273,177
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6111	**Old HOX**	0
NOPIC Date	06/16/2017	**Supp HOX**	0
Extract Date	08/04/2017	**Special Exem**	0
Months Prorated	12	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**1,026,823**
Billed Owner	AZURE ROUTE 66 PLAZA PARTNERS LLC		
Joint Owner			

Supplement Date: 05/18/2016

Roll Type	INTERIM SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	2016	**New Land**	1,300,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	269,074
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6111	**Old HOX**	0
NOPIC Date	06/16/2017	**Supp HOX**	0
Extract Date	08/04/2017	**Special Exem**	0
Months Prorated	1	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**1,030,926**
Billed Owner	AZURE ROUTE 66 PLAZA PARTNERS LLC		
Joint Owner			

Supplement Date: 11/21/2003

Roll Type	REGULAR SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	2003	**New Land**	227,450
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	603,059
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6111	**Old HOX**	0
NOPIC Date	04/02/2004	**Supp HOX**	0
Extract Date	05/08/2004	**Special Exem**	0
Months Prorated	7	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**(375,609)**

Billed Owner YASMEH, BEHZAD

Joint Owner MISHAEL, MITRA

Supplement Date: 01/05/1995

Roll Type	REGULAR SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	1994	**New Land**	520,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	541,008
Correction Code		**Old Imprv**	0
Legal Status	SECURED	**New HOX**	0
TRA	6000	**Old HOX**	0
NOPIC Date	06/09/1995	**Supp HOX**	0
Extract Date	08/08/1995	**Special Exem**	0
Months Prorated	5	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**(21,008)**

Billed Owner EISENHOWER MEDICAL CENTER

Joint Owner

Supplement Date: 04/06/1994

Roll Type	REGULAR SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	1994	**New Land**	520,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	541,008
Correction Code		**Old Imprv**	0
Legal Status	UNSECURED	**New HOX**	0
TRA	6000	**Old HOX**	0
NOPIC Date	02/16/1995	**Supp HOX**	0
Extract Date	05/06/1995	**Special Exem**	0
Months Prorated	7	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**(21,008)**
Billed Owner	TORRANCE, WILLIAM S		
Joint Owner			

Supplement Date: 04/06/1994

Roll Type	INTERIM SUPPLEMENT	**Supp Type**	OWNERSHIP TRANSFER
Supp Year	1994	**New Land**	520,000
Revised IND		**New Imprv**	0
Corrected Date		**Old Land**	530,400
Correction Code		**Old Imprv**	0
Legal Status	UNSECURED	**New HOX**	0
TRA	6000	**Old HOX**	0
NOPIC Date	02/16/1995	**Supp HOX**	0
Extract Date	05/06/1995	**Special Exem**	0
Months Prorated	2	**Impr Penalty**	0
Corr Status		**Prior Supps**	0
Original Parcel	0133171070000	**Construction in Progress**	0
		Net Value	**(10,400)**
Billed Owner	TORRANCE, WILLIAM S		
Joint Owner			



NOTICE

PLEASE BE ADVISED THAT THE DATA AND INFORMATION FROM THE PUBLIC RECORDS CONTAINED HEREIN WILL NEED TO BE UPDATED PRIOR TO CLOSING AS MANY COUNTY FACILITIES ARE CLOSED OR HAVE LIMITED STAFFING AS A RESULT OF THE CORONAVIRUS PANDEMIC. IF THE INFORMATION FROM THE COUNTY IS NOT AVAILABLE THERE WILL BE ADDITIONAL REQUIREMENTS IN ORDER TO CLOSE AND INSURE THIS TRANSACTION. PLEASE CONTACT YOUR LOCAL TITLE OFFICER FOR DETAILS.

Orange Coast Title Company
3536 Concours, Suite 120
Ontario, CA 91764
909-987-5433

PRELIMINARY REPORT

Orange Coast Title Company
3536 Concours Suite 120
Ontario, CA 91764

Attention:	Tina Duncan	**Your no.:**	2241394-TD
Property address:	See Attached "Property Exhibit"	**Order no.:**	140-2241394-32

Dated: April 26, 2021

In response to the above referenced application for a policy of title insurance, **Orange Coast Title Company** hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit B attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit B. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit B of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters, which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of April 13, 2021 at 7:30 AM

Manny Villalobos, Title Officer
Ph: 909-987-5433
Email: mannyv@octitle.com

The form of policy of title insurance contemplated by this report is:

C.L.T.A. Standard Coverage Policy - 1990 (Owner's Policy or Joint Protection) and A.L.T.A. Loan Policy (06-17-06)

See attached disclosure.

Schedule "A"

The estate or interest in the land hereinafter described or referred to covered by this report is:

A fee, as to parcel(s) A, B, C, D and E1; an easement, as to parcel(s) E2.

Title to said estate or interest at the date hereof is vested in:

Behzad Yasmeh and Mitra Mishael, husband and wife as joint tenants

The land referred to in this report is situated in the City of Rialto, the County of San Bernardino, State of California, and is described as follows:

Parcel No. A:

The East 34 of the East 34 of the West 34 of Farm Lot 62, according to Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per Flat Recorded in Book 4 of Maps, Page 11, Records of said County.

Parcel No. B:

The East 5 feet of the West 34 of the East 1/2 of the West 1/2 of Farm Lot 62, according to the Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per Plat recorded in Book 4 of Maps, Page 11, records of said County.

Parcel No. C:

The West 1/2 of the East 1/2 of the West 34, excepting the East 5 feet thereof, and the East 5 feet of the West 1/2 of the West 1/2 of Lot 62, according to the Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per plat recorded in Book 4 of Maps, Page 11, records of said County.

Excepting therefrom those portions conveyed to the City of Rialto for street and highway purposes by deed recorded in Book 4198, Page 279, Official Records, described as follows:

The North 8.75 feet of the South 50 Feet of the West 165.08 Feet of the East 335.16 feet of the West 34 of Lot 62, Town of Rialto and adjoining subdivision, as per plat recorded in Book 4 of Maps, Page 11, records of said County.

Areas and distances measured to the center of adjoining streets.

Also excepting therefrom those portions conveyed to the City of Rialto for street and highway purposes by deed recorded in Book 5659, Page 764, Official Records, described as follows:

The North 5.0 feet of the South 55.0 feet of the East 165.08 feet of the West 489.64 feet of Lot 62, Town of Rialto and adjoining subdivision, in the City of Rialto, County Of San Bernardino, State of California, as per plat recorded in Book 4 of Maps, Page 11, Records of said County.

Areas and distances measured to the center of adjoining streets.

Panel No. D:

Parcel 2 of Parcel Map No. 6899, in the City of Rialto, County of San Bernardino, State of California, as per plat Recorded in Book 65 of Parcel Maps, Page(s) 28, Records of said County.

Parcel E:

A portion of the West 112 of the West 1/2 of Lot 62, Town of Rialto, as per plat recorded in Book 4 of Maps, Page 11, records of said County, described as follows:

Beginning at a point in the North line of San Bernardino Avenue 5 Feet West of the East line of the West 1/2 of the West 112 of said lot measured along said line; thence North parallel to said East line to the North line of said lot; thence West along said North line to a point in the East line of Acacia Avenue; thence South along said East line 20 feet; thence East parallel to the North line of said Lot 160 feet thence South parallel to the East line of Acacia Avenue 246 feet; thence East parallel to the North line of said Lot 35.66 feet; thence South parallel to the East line of Acacia Avenue 356.85 feet to the North line of San Bernardino Avenue; thence East along said line 100 feet to the point of beginning.

Excepting therefrom that portion conveyed to Louis C. Giancola et in by deed recorded February 13, 1959 in Book 4730 Page 464, Official Records.

Also excepting therefrom that portion conveyed to Tonie Beard et ux by deed recorded February 13, 1959 in Book 4730 Page 466, Official Records.

Also excepting therefrom that portion conveyed to the City of Rialto for street and highway purposes by deed recorded August 23, 1957 in Book 4309 Page 525 Official Records.

Parcel 2:

Together with an easement for ingress and egress for road or driveway purposes over the North 20 feet of the West 310 feet of the land described in the deed recorded January 9, 1951 in Book 2699 Page 212, Official Records of said County.

The area and distances of the above described property are computed to the centers of the adjoining streets shown on said Map.

Assessor's Parcel Numbers(s):
1: 0133-171-07
2: 0133-171-08
3: 0133-171-09
4: 0133-171-31

Schedule "B"

At the date hereof exceptions to coverage in addition to the printed exceptions and exclusions contained in said policy form would be as follows:

1 General and Special taxes for the fiscal year 2021-2022, including any assessments collected with taxes. A lien not yet payable.

First installment due and payable 11/01/2021, delinquent if not paid by 12/10/2021
Second installment due and payable 02/01/2022, delinquent if not paid by 04/10/2022

2 General and Special taxes for the fiscal year 2020-2021, including any assessments collected with current taxes.

Total amount	$**18,386.75**
1st installment	$**9,193.38**, delinquent
Penalty	$**919.35** (after 12/10/2020)
2nd installment	$**9,193.37**, delinquent
Penalty	$**929.35** (after 4/12/2021)
Code area	006111-City of "Rialto
Parcel No.	**0133-171-07-0-000**
Exemption	$none

The above taxes cover Parcel A.

3 NOTE: DEFAULTED TAX shown below:

Delinquent Tax Year(s) and Installment(s): 2017-2019/both
Total Amount to redeem if paid by:
4/30/2021, $99,703.39
5/31/2021, $100,724.75
6/30/2021, $101,745.89

4 General and Special taxes for the fiscal year 2020-2021, including any assessments collected with current taxes.

Total amount	$**18,168.90**
1st installment	$**9,084.46**, delinquent
Penalty	$**908.45** (after 12/10/2020)
2nd installment	$**9,084.44**, delinquent
Penalty	$**918.45** (after 4/12/2021)
Code area	006111-City of Rialto
Parcel No.	**0133-171-08-0-000**
Exemption	$none

The above taxes cover Parcels B and C.

5 NOTE: DEFAULTED TAX shown below:

Delinquent Tax Year(s) and Installment(s): 2017-2019/both
Total Amount to redeem if paid by:
4/30/2021, $107,716.47
5/31/2021, $108,819.11
6/30/2021, $109,921.75

6 General and Special taxes for the fiscal year 2021-2021, including any assessments collected with current taxes.

Total amount	$**9,612.30**
1st installment	$**4,806.15**, delinquent
Penalty	$**480.62** (after 12/10/2020)
2nd installment	$**4,806.15**, delinquent
Penalty	$**490.62** (after 4/12/2021)
Code area	006111-City of Rialto
Parcel No.	**0133-171-09-0-000**
Exemption	$none

The above taxes cover Parcel E.

7 NOTE: DEFAULTED TAX shown below:

Delinquent Tax Year(s) and Installment(s): 2017-2019/both
Total Amount to redeem if paid by:
4/30/2021, $54,279.43
5/31/2021, $54,844.97
6/30/2021, $55,410.53

8 General and Special taxes for the fiscal year 2020-2021, including any assessments collected with current taxes.

Total amount	$**16,008.55**
1st installment	$**8,004.29**, delinquent
Penalty	$**800.43** (after 12/10/2020)
2nd installment	$**8,004.26**, delinquent
Penalty	$**810.43** (after 4/12/2021)
Code area	006111-City of Rialto
Parcel No.	**0133-171-31-0-000**
Exemption	$none

The above taxes cover Parcel D.

9 NOTE: DEFAULTED TAX shown below:

Delinquent Tax Year(s) and Installment(s): 2017-2019/both
Total Amount to redeem if paid by:
4/30/2021, $100,260.61
5/31/2021, $101,286.59
6/30/2021, $102,312.57

10 Please Note: High Liability Sale - Examination of County Records Required

11 The Lien of future supplemental taxes, if any, assessed pursuant to the provisions of section 75, et seq of the revenue and taxation code of the State of California

12 Rights of the public in and to any portion of said land lying within any lawfully established streets, roads or highways.

13 The fact that there may be a lack of access to and from said land, no grant of dedication of an access easement has been found of record.

Said matter affects Parcel D.

14 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument

Recorded:	In Book 102 Page 366, of Deeds
For:	Pipe lines and incidental purposes
In favor of:	Semi-Tropics Land and Water Company
Affects:	The location of said easement cannot be determined from the public records.

15 An easement for purposes herein stated, and rights incidental thereto as set forth in an instrument
Recorded: In Book 437, Page 214 of Deeds
For: Cement pipe lines and incidental purposes
Affects: As set forth therein

Said matter affects Parcel E.

16 Matters, rights or boundary discrepancies that may exist or be disclosed by a Record of Survey filed in Book 6 Page 18 of Record of Surveys in the office of the County Recorder of said County.

17 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 11/5/1957 in Book 4362 Page 246, of Official Records.
For : Public utilities, ingress, egress and incidental purposes
In favor of : California Electric Power Company
Affects : As set forth therein

Said matter affects Parcel E.

18 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 3/24/1961 in Book 5386 Page 457, of Official Records.
For : Public utilities and incidental purposes
In favor of : California Electric Power Company
Affects : The location of said easement is set forth therein.

Said matter affects Parcels A and B.

19 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 3/24/1961 in Book 5386 Page 458, of Official Records.
For : Public utilities and incidental purposes
In favor of : California Electric Power Company
Affects : As set forth therein

Said matter affects Parcel E.

20 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 3/31/1961 in Book 5392 Page 477, of Official Records.
For : Public utilities and incidental purposes
In favor of : California Electric Power Company
Affects : As set forth therein

Said matter affects Parcel C.

21 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 11/18/1970 in Book 7556 Page 474, of Official Records.
For : Public utilities and incidental purposes
In favor of : The Pacific Telephone and Telegraph Company
Affects : Northerly 5 feet

Said matter affects Parcel C.

22 Matters, rights or boundary discrepancies that may exist or be disclosed by a Parcel Maps No. 648 filed in Book 6 Page 17 of Parcel Maps in the office of the County Recorder of said County.

23 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument
Recorded: 7/17/1972 in Book 7978 Page 909, of Official Records.
For : Public utilities and incidental purposes
In favor of : Southern California Edison Company
Affects : As set forth therein

Said instrument provides that no building, planter boxes, earth fill or other structure except walls and fences shall be erected on said easement.

Said matter affects Parcel D.

24 An easement for purposes herein stated, and rights incidental thereto as provided in an instrument

Recorded:	11/1/1973 in Book 8299 Page 538, of Official Records.
For :	Public utilities and incidental purposes
In favor of :	Southern California Edison Company
Affects :	As set forth therein

Said instrument provides that no building, planter boxes, earth fill or other structure except walls and fences shall be erected on said easement.

Said matter affects Parcel D.

25 The fact that said land is within the boundaries of the Agua Mansa, Central Business District, Gateway and Industrial Redevelopment Area, as disclosed by an instrument recorded 7/19/2002, as Instrument No. 2002-355175, Official Records.

26 An instrument, upon the terms and conditions contained therein

Entitled:	Agreement Affecting Realo Property and Creating a Lien to Secure Payment of Deferred Residential Development Impact Fees
Recorded:	10/5/2017, as Instrument No. 2017-412450, Official Records

Reference is hereby made to the above document for full particulars.

27 An instrument, upon the terms and conditions contained therein

Entitled:	Notice of Lien for Unpaid Trash Disposal
Executed by:	City of Rialto
Amount:	$433.44, together with penalties and costs, if any
Recorded:	10/3/2018, as Instrument No. 2018-361977, Official Records.

For additional information please contact:
City of Rialto - Waste Mgmt.
150 South Palm Avenue
Rialto, CA. 92376

Said matter affects Parcel E.

28 An instrument, upon the terms and conditions contained therein

Entitled:	Notice of Lien for Unpaid Trash Disposal
Executed by:	City of Rialto
Amount:	$696.66, together with penalties and costs, if any
Recorded:	12/27/2018, as Instrument No. 2018-475397, Official Records.

For additional information please contact:
City of Rialto - Waste Mgmt.
150 South Palm Avenue
Rialto, CA. 92376

Said matter affects Parcel E.

29 An instrument, upon the terms and conditions contained therein

Entitled:	Notice of Lien for Unpaid Trash Disposal
Executed by:	City of Rialto
Amount:	$744.48, together with penalties and costs, if any
Recorded:	4/1/2019, as Instrument No. 2019-98649, Official Records.

For additional information please contact:
City of Rialto - Waste Mgmt.
150 South Palm Avenue
Rialto, CA. 92376

Said matter affects Parcel E.

30 An instrument, upon the terms and conditions contained therein

Entitled:	Notice of Lien for Unpaid Trash Disposal
Executed by:	City of Rialto
Amount:	$465.87, together with penalties and costs, if any
Recorded:	7/17/2019, as Instrument No. 2019-239590, Official Records.

For additional information please contact:
City of Rialto - Waste Mgmt.
150 South Palm Avenue
Rialto, CA. 92376

Said matter affects Parcel E.

31 An instrument, upon the terms and conditions contained therein

Entitled:	Notice of Lien for Unpaid Trash Disposal
Executed by:	City of Rialto
Amount:	$139.58, together with penalties and costs, if any
Recorded:	11/7/2019, as Instrument No. 2019-404777, Official Records.

For additional information please contact:
City of Rialto - Waste Mgmt.
150 South Palm Avenue
Rialto, CA. 92376

Said matter affects Parcel E.

32 Easements and rights of way for road and public utilities, and appurtenances thereto, as reserved and conveyed by various deeds of record. Affects easement parcel(s).

33 "NOTE: Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact your title officer immediately for further review".

34 Any invalidity or defect in the title resulting from the invalidity of the trustee's deed by which the insured acquired title, from a defect in the trustee's sale proceedings leading up to the trustee's deed, or from the undisclosed bankruptcy of the owner of the property.

NOTE: This exception will be removed from a policy insuring a subsequent purchaser as long as the previous owner has vacated the property, more than 30 days has elapsed from the date of the trustee's sale and there is otherwise no indication of a claim being asserted by a previous owner.

35 Rights of parties in possession of said land by reason of unrecorded leases, if any. Please forward said leases for our examination.

36 Any facts, rights, interest or claims which may be shown by an inspection of the land or which may be disclosed by inquiry of persons in possession of said land.

37 (A) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records;

Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.

(B) Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

(C) Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

(D) Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records

(E) (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the public records

(F) Any lien or right to a lien for services, labor or material theretofore or hereafter not shown by the public records.

Exceptions A-F will be omitted on extended coverage policies.

End of Schedule B

"NOTES AND REQUIREMENTS SECTION"

BUILDER SERVICES

NOTE NO. 1

AFFILIATED BUSINESS ARRANGEMENT DISCLOSURE STATEMENT NOTICE

This is to give you notice that Orange Coast Title Company owns an interest in Real Advantage Title Insurance Company. This underwriter may be chosen by Orange Coast Title Company and this referral may provide Orange Coast Title Company a financial or other benefit.

You are NOT required to use the listed provider as a condition for settlement of your loan or purchase, sale or refinance of the subject property and you have the opportunity to select any of the Orange Coast Title Company title insurance underwriters for your transaction. THERE ARE FREQUENTLY OTHER SETTLEMENT SERVICE PROVIDERS AVAILABLE WITH SIMILAR SERVICES. YOU ARE FREE TO SHOP AROUND TO DETERMINE THAT YOU ARE RECEIVING THE BEST SERVICES AND THE BEST RATE FOR THESE SERVICES

Notes section continued on next page…

NOTE NO. 2

California Revenue and Taxation Code Section 18662, effective January 1, 1994 and by amendment effective January 1, 2003, provides that the buyer in all sales of California Real Estate may be required to withhold 3 and 1/3% of the total sales price as California State Income Tax, subject to the various provisions of the law as therein contained.

NOTE NO. 3 PAYOFF INFORMATION:

Note: this company does require current beneficiary demands prior to closing.
If the demand is expired and a correct demand cannot be obtained, our requirements will be as follows:

A. If this company accepts a verbal update on the demand, we may hold an amount equal to one monthly mortgage payment. The amount of this hold will be over and above the verbal hold the lender may have stipulated.

B. If this company cannot obtain a verbal update on the demand, will either pay off the expired demand or wait for the amended demand, at the discretion of the escrow.

C. In the event that a payoff is being made to a servicing agent for the beneficiary, this company will require a complete copy of the servicing agreement prior to close.

NOTE NO. 4

If this company is requested to disburse funds in connection with this transaction, chapter 598, statutes of 1989 mandates hold periods for checks deposited to escrow or sub-escrow accounts. The mandatory hold is one business day after the day deposited. Other checks require a hold period from three to seven business days after the day deposited.

Notice Regarding Your Deposit of Funds

California Insurance Code Sections 12413 *et. Seq.* Regulates the disbursement of escrow and sub-escrow funds by title companies. The law requires that funds be deposited in the title company escrow and sub-escrow accounts and be available for withdrawal prior to disbursement. Funds deposited with the Company by wire transfer may be disbursed upon receipt. Funds deposited with the Company via cashier's checks drawn on a California based bank may be disbursed the next business day after the day of deposit. If funds are deposited with by other methods, recording or disbursement may be delayed. All escrow and sub-escrow funds received by the Company will be deposited with other funds in one or more non-interest bearing escrow accounts of the Company in a financial institution selected by the Company. The Company and/or its parent company may receive certain direct or indirect benefits from the financial institution by reason of the deposit of such funds or the maintenance of such accounts with the financial institution, and the Company shall have no obligation to account to the depositing party in any manner for the value of, or to pay such party, any benefit received by the Company and/or its parent Company. Those benefits may include, without limitation, credits allowed by such financial institution on loans to the Company and/or its parent company and earnings on investments made on the proceeds of such loans, accounting, reporting and other services and products of such financial institution. Such benefits shall be deemed additional compensation of the Company for its services in connection with the escrow or sub-escrow.

Orange Coast Title Company
3536 Concours, Suite 120
Ontario, CA 91764
909-987-5433

Attention:
Borrower: **FH ll, LLC, a California limited liability company**

Lenders supplemental report

The above numbered report (including any supplements or amendments thereto) is hereby modified and/or supplemented in order to reflect the following additional items relating to the issuance of an American Land Title Association loan policy form as follows:

A. This report is preparatory to this issuance of an American Land Title Association loan policy of title insurance. This report discloses nothing, which would preclude the issuance of said American land title association loan policy of title insurance with endorsement no. 100 attached thereto.

B. The improvements on said land are designated as:

Vacant Land
1: 565 East Foothill Boulevard, in the City of Rialto, County of San Bernardino, State of California.

Vacant Land
2: 534 East Foothill Boulevard, in the City of Rialto, County of San Bernardino, State of California.

Vacant Land
3: 520 East Foothill Boulevard, in the City of Rialto, County of San Bernardino, State of California.

Vacant Land
4: vacant, in the City of Rialto, County of San Bernardino, State of California.

C. Our search of the public records revealed conveyance(s) affecting said land recorded within 24 months of the date of this report are as follows:

None.

Attention

Please note that this preliminary report now has an extra copy of the legal description on a separate sheet of paper. There are no markings on the page. The idea is to provide you with a legal description that can be attached to other documents as needed. That legal description page immediately follows this page.

Thank you for your support of **Orange Coast Title Company**. We hope that this makes your job a little easier.

Exhibit "A"

Parcel No. A:

The East 34 of the East 34 of the West 34 of Farm Lot 62, according to Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per Flat Recorded in Book 4 of Maps, Page 11, Records of said County.

Parcel No. B:

The East 5 feet of the West 34 of the East 1/2 of the West 1/2 of Farm Lot 62, according to the Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per Plat recorded in Book 4 of Maps, Page 11, records of said County.

Parcel No. C:

The West 1/2 of the East 1/2 of the West 34, excepting the East 5 feet thereof, and the East 5 feet of the West 1/2 of the West 1/2 of Lot 62, according to the Map of Town of Rialto and adjoining subdivision, in the City of Rialto, County of San Bernardino, State of California, as per plat recorded in Book 4 of Maps, Page 11, records of said County.

Excepting therefrom those portions conveyed to the City of Rialto for street and highway purposes by deed recorded in Book 4198, Page 279, Official Records, described as follows:

The North 8.75 feet of the South 50 Feet of the West 165.08 Feet of the East 335.16 feet of the West 34 of Lot 62, Town of Rialto and adjoining subdivision, as per plat recorded in Book 4 of Maps, Page 11, records of said County.

Areas and distances measured to the center of adjoining streets.

Also excepting therefrom those portions conveyed to the City of Rialto for street and highway purposes by deed recorded in Book 5659, Page 764, Official Records, described as follows:

The North 5.0 feet of the South 55.0 feet of the East 165.08 feet of the West 489.64 feet of Lot 62, Town of Rialto and adjoining subdivision, in the City of Rialto, County Of San Bernardino, State of California, as per plat recorded in Book 4 of Maps, Page 11, Records of said County.

Areas and distances measured to the center of adjoining streets.

Panel No. D:

Parcel 2 of Parcel Map No. 6899, in the City of Rialto, County of San Bernardino, State of California, as per plat Recorded in Book 65 of Parcel Maps, Page(s) 28, Records of said County.

Parcel E:

A portion of the West 112 of the West 1/2 of Lot 62, Town of Rialto, as per plat recorded in Book 4 of Maps, Page 11, records of said County, described as follows:

Beginning at a point in the North line of San Bernardino Avenue 5 Feet West of the East line of the West 1/2 of the West 112 of said lot measured along said line; thence North parallel to said East line to the North line of said lot; thence West along said North line to a point in the East line of Acacia Avenue; thence South along said East line 20 feet; thence East parallel to the North line of said Lot 160 feet thence South parallel to the East line of Acacia Avenue 246 feet; thence East parallel to the North line of said Lot 35.66 feet; thence South parallel to the East line of Acacia Avenue 356.85 feet to the North line of San Bernardino Avenue; thence East along said line 100 feet to the point of beginning.

Excepting therefrom that portion conveyed to Louis C. Giancola et in by deed recorded February 13, 1959 in Book 4730 Page 464, Official Records.

Also excepting therefrom that portion conveyed to Tonie Beard et ux by deed recorded February 13, 1959 in Book 4730 Page 466, Official Records.

Also excepting therefrom that portion conveyed to the City of Rialto for street and highway purposes by deed recorded August 23, 1957 in Book 4309 Page 525 Official Records.

Parcel 2:

Together with an easement for ingress and egress for road or driveway purposes over the North 20 feet of the West 310 feet of the land described in the deed recorded January 9, 1951 in Book 2699 Page 212, Official Records of said County.

The area and distances of the above described property are computed to the centers of the adjoining streets shown on said Map.

CLTA Preliminary Report Form – Exhibit B (06-03-11)

CLTA STANDARD COVERAGE POLICY – 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:
1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy. (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters: (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant; (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy; (c) resulting in no loss or damage to the insured claimant; (d) attaching or created subsequent to Date of Policy; or (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:
1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02/03/10)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:
1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning: a.building, b. zoning, c.land use d. improvements on the Land, e.land division; and ,f. environmental protection. This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks: a. that are created, allowed, or agreed to by You, whether or not they recorded in the Public Records; b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date; c. that result in no loss to You; or d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e, 25, 26, 27, or 28.
5. Failure to pay value for Your Title.
6. Lack of a right: a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and b. in streets, alleys, or waterways that touch the Land. This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
• For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	**1 % of Policy Amount shown in Schedule A or $ 2,500 (whichever is less)**	**$ 10,000**
Covered Risk 18:	**1 % of Policy Amount shown in Schedule A or $ 5,000 (whichever is less)**	**$ 25,000**
Covered Risk 19:	**1 % of Policy Amount shown in Schedule A or $ 5,000 (whichever is less)**	**$ 25,000**
Covered Risk 21:	**1 % of Policy Amount shown in Schedule A or $ 2,500 (whichever is less)**	**$ 5,000**

ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:
1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning: * land use * improvements on the land * land division * environmental protection. This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date. This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless: *a notice of exercising the right appears in the public records *on the Policy Date *the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking
3. Title Risks: *that are created, allowed, or agreed to by you *that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records *that result in no loss to you *that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right: *to any land outside the area specifically described and referred to in Item 3 of Schedule A OR *in streets, alleys, or waterways that touch your land. This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:
1. (a) Any law, ordinance or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement erected on the Land; (iii) the subdivision of land; or (iv) environmental protection; or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims or other matters:(a)created, suffered, assumed or agreed to by the Insured Claimant; (b)not known to the Company, not recorded in the public records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy; (c) resulting in no loss or damage to the Insured Claimant; (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13 or 14);or(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state in which the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is (a) a fraudulent conveyance or fraudulent transfer, or (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b):

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:
1.(a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2.Any facts, rights, interests or claims which are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3.Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4.Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5.(a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

2006 ALTA OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to: (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions, or location of any improvement erected on the Land; (iii) the subdivision of land; or (IV) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5. (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters: (a) created, suffered, assumed, or agreed to by the Insured Claimant; (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;(c) resulting in no loss or damage to the Insured Claimant; (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is (a) a fraudulent conveyance or fraudulent transfer; or (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.
The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:
1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys fees or expenses which arise by reason of:
1. (a) Any law, ordinance, permit, or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions or location of any improvement erected on the Land; (iii) the subdivision of the land; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risks 5, 6, 13(c), 13(d), 14, and 16.(b) Any governmental police power. This Exclusion 1(b)does not modify or limit the coverage provided under Covered Risks 5, 6, 13(c), 13(b), 14, and 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims or other matters (a) created, suffered, assumed or agreed to by the Insured Claimant; (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;(c) resulting in no loss or damage to the Insured Claimant;(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risks 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 26); or (e)resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of the Insured to comply with applicable doing-business laws of the state in which the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth in lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.

6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6..
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is (a) a fraudulent conveyance or fraudulent transfer, or (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

Orange Coast Title Company
PRIVACY POLICY

We Are Committed to Safeguarding Customer Information
In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information – particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information that you provide to us. Therefore, we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability
This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity.

Types of Information
Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means.
- Information we receive from providers of services to us, such as appraisers, appraisal management companies, real estate agents and brokers and insurance agencies (this may include the appraised value, purchase price and other details about the property that is the subject of your transaction with us).
- Information about your transactions with us, our Affiliated Companies, or others; and
- Information we receive from a consumer reporting agency.

Your California Rights (immediately following this Privacy Policy) or you may visit our website at https://www.titleadvantage.com/privacypolicy.htm or call toll-free at (866) 241-7373. Only applies to CA residents

Use of Information
We request information from you for our own legitimate business purposes and not for benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security
We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Other Important Information
We reserve the right to modify or supplement this Privacy Policy at any time. If our Privacy Policy changes, we will provide the new Privacy Policy before the new policy becomes effective.

Last Revision 12/26/2019
Effective on 1/01/2020

Your California Rights

If you are a California resident, you may have certain rights under California law, including but not limited to the California Consumer Privacy Act ("CCPA"). All phrases used herein shall have the same meaning as those phrases used under relevant California law, including but not limited to the CCPA.

Right to Know
You have the right to know:

- The categories of personal information we have collected about or from you;
- The categories of sources from which we collected your personal information;
- The business or commercial purpose for collecting or sharing your personal information;
- The categories of third parties with whom we have shared your personal information; and
- The specific pieces of your personal information we have collected.

Process to Submit a Request. To submit a verified request for this information you may visit our website at https://www.titleadvantage.com/privacypolicy.htm or call toll-free at (866) 241-7373. You may also designate an authorized agent to submit a request on your behalf by visiting our website https://www.titleadvantage.com/privacypolicy.htm or calling toll-free at (866) 241-7373 and then also submitting written proof of such authorization via e-mail to dataprivacy@octitle.com.

Verification Method. In order to ensure your personal information is not disclosed to unauthorized parties, and to protect against fraud, we will verify your identity before responding to your request. To verify your identity, we will generally match the identifying information provided in your request with the information we have on file about you. Depending on the sensitivity of the personal information requested, we may also utilize more stringent verification methods to verify your identity, including but not limited to requesting additional information from you and/or requiring you to sign a declaration under penalty of perjury.

Right of Deletion
You have a right to request that we delete the **personal information** we have collected from or about you.

Process to Submit a Request. To submit a verified request to delete you information you may visit our website at https://www.titleadvantage.com/privacypolicy.htm or call toll-free at (866) 241-7373. You may also designate an authorized agent to submit a request on your behalf by clicking here or calling toll-free at (866) 241-7373 and then also submitting written proof of such authorization via e-mail to dataprivacy@octitle.com.

Verification Method. In order to ensure we do not inadvertently delete your **personal information** based on a fraudulent request, we will verify your identity before we respond to your request. To verify your identity, we will generally match the identifying information provided in your request with the information we have on file about you. Depending on the sensitivity of the **personal information** requested to be deleted, we may also utilize more stringent verification methods to verify your identity, including but not limited to requesting additional information from you and/or requiring you to sign a declaration under penalty of perjury.

Right to Opt-Out
We do not sell your **personal information** to third parties, and do not plan to do so in the future.

Right of Non-Discrimination
You have a right to exercise your rights under the CCPA without suffering discrimination. Accordingly, OC Title & family of Companies will not discriminate against you in any way if you choose to exercise your rights under the CCPA.

California Minors
If you are a California resident under the age of 18, California Business and Professions Code § 22581 permits you to request and obtain removal of content or information you have publicly posted on any of our Applications or Websites. To make such a request, please send an email with a detailed description of the specific content or information to dataprivacy@octitle.com. Please be aware that such a request does not ensure complete or comprehensive removal of the content or information you have posted and there may be circumstances in which the law does not require or allow removal even if requested.

Collection Notice
The following is a list of the categories of **personal information** we may have collected about California residents in the twelve months preceding the date this Privacy Notice was last updated, including the business or commercial purpose for said collection, the

categories of sources from which we may have collected the **personal information**, and the categories of third parties with whom we may have shared the **personal information**:

Categories of Personal Information Collected

The categories of **personal information** we have collected include, but may not be limited to:

- real name
- Signature
- Alias
- SSN
- physical characteristics or description, including protected characteristics under federal or state law
- address
- telephone number
- passport number
- driver's license number
- state identification card number
- IP address
- policy number
- file number
- employment history
- bank account number
- credit card number
- debit card number
- financial account numbers
- commercial information
- professional or employment information

Categories of Sources

Categories of sources from which we've collected **personal information** include, but may not be limited to:

- the consumer directly
- public records
- governmental entities
- non-affiliated third parties
- affiliated third parties

Business Purpose for Collection

The business purposes for which we've collected **personal information** include, but may not be limited to:

- completing a transaction for our Products
- verifying eligibility for employment
- facilitating employment
- performing services on behalf of affiliated and non-affiliated third parties
- protecting against malicious, deceptive, fraudulent, or illegal activity

Categories of Third Parties Shared

The categories of third parties with whom we've shared **personal information** include, but may not be limited to:

- service providers
- government entities
- operating systems and platforms
- non-affiliated third parties
- affiliated third parties

Sale Notice

We have not sold the **personal information** of California residents to any third party in the twelve months preceding the date this Privacy Notice was last updated, and we have no plans to sell such information in the future. We also do not, and will not sell the **personal information** of minors under sixteen years of age without affirmative authorization.

Disclosure Notice

The following is a list of the categories of **personal information** of California residents we may have disclosed for a business purpose in the twelve months preceding the date this Privacy Notice was last updated.

- real name
- Signature
- Alias
- SSN
- physical characteristics or description, including protected characteristics under federal or state law
- telephone number
- passport number
- driver's license number
- state identification card number
- IP address
- policy number
- file number
- bank account number
- credit card number
- debit card number
- financial account numbers
- commercial information
- professional or employment information

- address
- employment history

If you have any questions and/or comments you may contact us:

Call Us at our toll free number (866) 241-7373
Email Us at dataprivacy@octitle.com
Mail:
Orange Coast Title
Attn: Privacy Officer
1551 N. Tustin Ave., Ste. 300
Santa Ana, CA 92705

Effective on 1/1/2019
Revised on 12/23/2019

Property Exhibit

1: 565 East Foothill Boulevard, Rialto, CA 92376
2: 534 East Foothill Boulevard, Rialto, CA 92376
3: 520 East Foothill Boulevard, Rialto, CA 92376
4: vacant, Rialto, CA 92376

Description: San Bernardino,CA Assessor Map - Book.Page 133.17 Page: 1 of 1
Order: 1 Comment:

THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY.

Town of Rialto & Adj. Subs.
M.B. 4/11

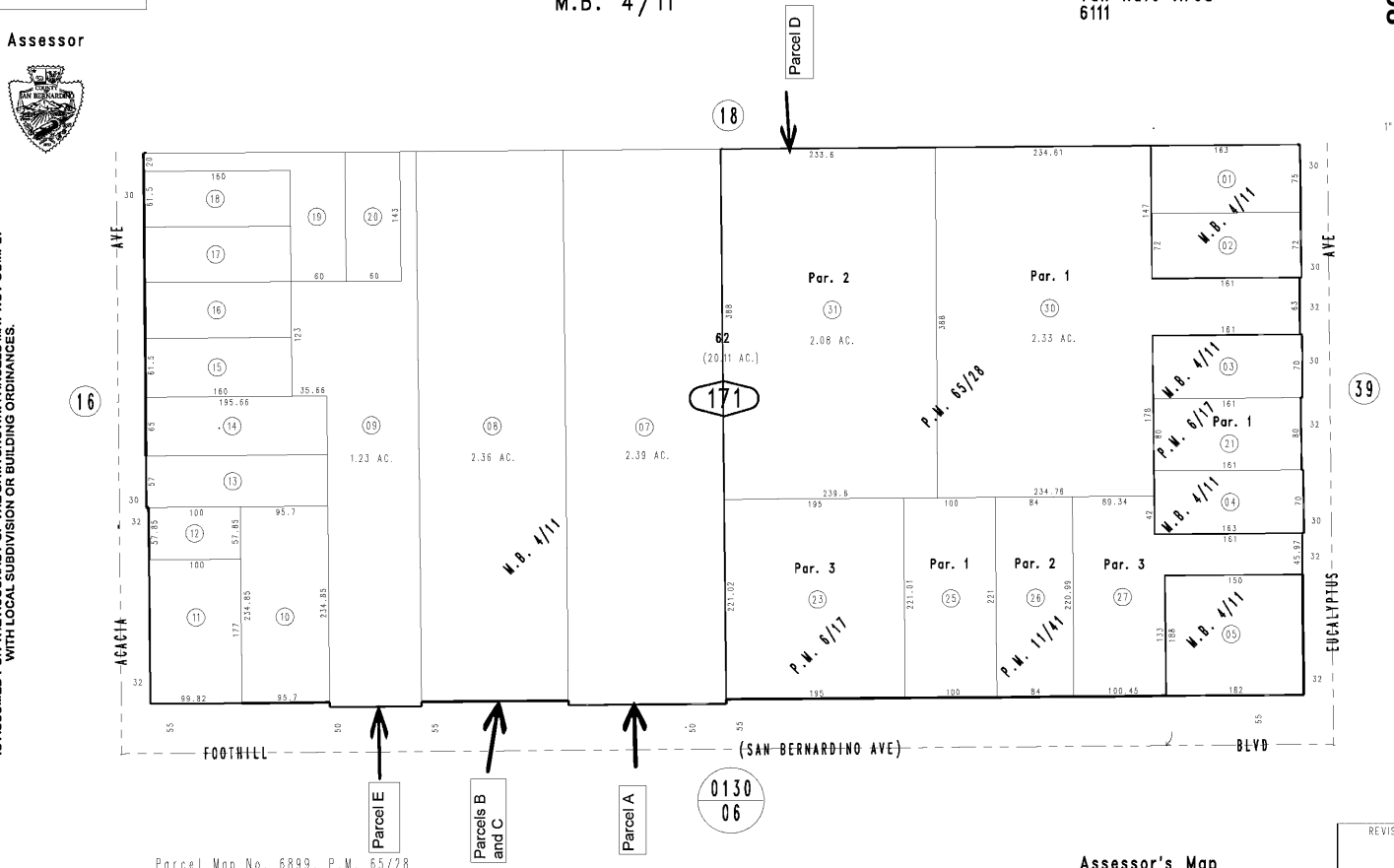
City of Rialto
Tax Rate Area
6111

0133 – 17

802

1"=100'

Assessor



THIS MAP SHOULD BE USED FOR REFERENCE PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES.

Parcel Map No. 6899, P.M. 65/28
Parcel Map No. 1403, P.M. 11/41
Ptn. Parcel Map No. 648, P.M. 6/17

February 2004

Assessor's Map
Book 0133 Page 17
San Bernardino County

REVISED

National Flood Hazard Layer FIRMette

FEMA

117°21'55"W 34°6'43"N



117°21'18"W 34°6'13"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/27/2021 at 3:25 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USER QUESTIONNAIRE

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2002, the *user* must provide the following information (if available) to the *environmental professional.* Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

(1) Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

CIRCLE YES *or* NO

If yes, please explain in detail.

(2) Are you aware of any Act Use Limitations (AUL), such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

YES *or* NO

If yes, please explain.

(3) As the *user* of this Environmental Site Assessment (ESA) do you have any specialized knowledge or familiarity related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or its neighboring *property,* so that you may have specific knowledge of the chemicals and processes used by this type of business?

YES *or* NO

If yes, please explain.

(4) Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*?

YES *or* NO

If you believe that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

YES *or* NO

If yes, please explain. N/A

(5) Are you aware of commonly known or *reasonably* ascertainable information that would help the *environment professional* to identify conditions pinpointing releases or threaten releases of hazardous materials and/ or chemicals? For example, as user,

(a.) Do you know of any past uses of the *property*? YES or NO

(b.) Do you know of specific chemicals that are present or once were present at the *property*? YES or NO

(c.) Do you know of any chemical spills or any other chemical releases that have taken place at the *property*? YES or NO

(d.) Do you know of any environmental cleanups that have taken place at the *property*? YES or NO

If any yes, please explain.

(6) As the user of this Environmental Site Assessment (ESA), based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of a contamination at the *property*?

YES *or* NO

If yes, please explain.

Completed By Rocha, Dania C.
Print Name

PROSPECTIVE JOBS

state	county		city	address1	address2	date
California		95126	San Jose	478 Stockton Avenue		1/1/1970
California	Alameda		San Lorenzo	17283 Via Annette Dr		2/6/2004
California	Alameda		San Lorenzo	17283 Via Annette Dr		2/6/2004
California	Alameda		San Leandro	1735 138th Ave		2/18/2004
California	Alameda		San Leandro	1735 138th Ave		2/18/2004
California	Alameda		Newark	37120 Spruce St G		2/29/2004
California	Alameda		Hayward	333 Jackson St 219		3/12/2004
California	Alameda		Hayward	333 Jackson St 219		3/12/2004
California	Alameda		Hayward	1032 Central Blvd		6/9/2004
California	Alameda		Hayward	1032 Central Blvd		6/9/2004
California	Alameda		Hayward	231 Culp Ave		8/29/2004
California	Alameda		Hayward	231 Culp Ave		8/29/2004
California	Alameda		Union City	32673 Brenda Way 3		9/28/2004
California	Alameda		Union City	32673 Brenda Way 3		9/28/2004
California	Alameda		Pleasanton	6443 Alisal St		1/19/2005
California	Alameda		San Leandro	872 Donovan Dr		5/4/2005
California	Alameda		San Leandro	14446 Elm St		5/31/2005
California	Alameda		Hayward	27948 Pueblo Serena Way		1/9/2006
California	Alameda		Union City	2351 Hartford Drive		4/7/2006
California	Alameda		Union City	2351 Hartford Drive		4/7/2006
California	Alameda		Fremont	35856 Toledo Court		7/28/2006
California	Alameda		San Lorenzo	1302 Via San Juan Street		10/25/2007
California	Alameda		San Leandro	1553 Santa Maria Road		11/28/2007
California	Alameda		San Leandro	1553 Santa Maria Road		11/28/2007
California	Alameda		Hayward	698 Overhill Drive		5/16/2008
California	Alameda		Hayward	698 Overhill Drive		5/16/2008
California	Alameda		Berkeley	2240 9th Street		7/19/2008
California	Alameda		Oakland	923 39th Street		11/25/2008
California	Alameda		San Lorenzo	16150 Arriba Viaduct		4/8/2009
California	Alameda		Pleasanton	818 Angela Street		3/10/2010
California	Alameda		Pleasanton	818 Angela Street		3/10/2010
California	Alameda		Castro Valley	19127 Santa Maria Avenue		3/24/2010
California	Alameda		Castro Valley	19127 Santa Maria Avenue		3/24/2010
California	Alameda		Oakland	1950 86th Avenue		12/7/2015
California	Alameda		Oakland	1950 86th Avenue		12/7/2015
California	Butte		Oroville	1940 Helman St		2/4/2004
California	Butte		Oroville	1940 Helman St		2/4/2004
California	Butte		Oroville	110 Greenback Dr		2/5/2004
California	Butte		Oroville	110 Greenback Dr		2/5/2004
California	Butte		Oroville	2437 Oro Quincy Hwy		3/17/2004
California	Butte		Oroville	2437 Oro Quincy Hwy		3/17/2004
California	Butte		Paradise	6441 Moss Ln		3/31/2004
California	Butte		Paradise	6441 Moss Ln		3/31/2004
California	Butte		Magalia	3 Jordan Hill Rd		3/31/2004
California	Butte		Biggs	2164 Larkin		4/9/2004
California	Butte		Biggs	2164 Larkin		4/9/2004

California	Butte	Chico	939 W East Ave 4	4/19/2004
California	Butte	Chico	939 W East Ave 4	4/19/2004
California	Butte	Oroville	126 Canyon Highlands Dr	5/5/2004
California	Butte	Oroville	126 Canyon Highlands Dr	5/5/2004
California	Butte	Oroville	208 Misty View Ln	5/10/2004
California	Butte	Oroville	208 Misty View Ln	5/10/2004
California	Butte	Chico	853 E 7th St	7/14/2004
California	Butte	Oroville	2750 De Bangar Hwy	7/21/2004
California	Butte	Paradise	538 Castle	7/23/2004
California	Butte	Paradise	538 Castle	7/23/2004
California	Butte	Oroville	2720 Oro Dam Blvd 6a	8/3/2004
California	Butte	Oroville	2720 Oro Dam Blvd 6a	8/3/2004
California	Butte	Chico	453 Posada Way 12	8/4/2004
California	Butte	Chico	453 Posada Way 12	8/4/2004
California	Butte	Magalia	14723 Gold Cone Dr	9/21/2004
California	Butte	Biggs	488 G St	10/26/2004
California	Butte	Biggs	488 G St	10/26/2004
California	Butte	Oroville	1130 Tehama St	1/12/2005
California	Butte	Oroville	1130 Tehama St	1/12/2005
California	Butte	Chico	1056 E 8th St	3/18/2005
California	Butte	Chico	1056 E 8th St	3/18/2005
California	Butte	Oroville	1915 Plumas St	6/9/2005
California	Butte	Durham	9606 Fimple Rd	7/15/2005
California	Butte	Chico	696 7th E St	10/19/2005
California	Butte	Chico	1402 Pomona Ln	11/17/2005
California	Butte	Oroville	2794 Oak Knoll Way	11/30/2005
California	Butte	Chico	997 E 16th St	12/15/2005
California	Butte	Chico	997 E 16th St	12/15/2005
California	Butte	Gridley	233 Kentucky Street	2/21/2006
California	Butte	Gridley	233 Kentucky Street	2/21/2006
California	Butte	Gridley	275 Kentucky St	2/21/2006
California	Butte	Gridley	275 Kentucky St	2/21/2006
California	Butte	Paradise	5955 Hazel Way	5/25/2006
California	Butte	Oroville	91 Toyon Hills Drive	2/23/2007
California	Butte	Chico	1735 Magnolia Avenue	2/26/2007
California	Butte	Chico	1735 Magnolia Avenue	2/26/2007
California	Butte	Oroville	165 Hurles Circle	3/18/2007
California	Butte	Oroville	165 Hurles Circle	3/18/2007
California	Butte	Oroville	4210 Oro Bangor Highway	6/1/2007
California	Butte	Oroville	4210 Oro Bangor Highway	6/1/2007
California	Butte	Palermo	2398 Louis Avenue	8/27/2007
California	Butte	Palermo	2398 Louis Avenue	8/27/2007
California	Butte	Oroville	2349 Via Madero	9/11/2007
California	Butte	Oroville	1616 Oro Dam Boulevard	10/29/2007
California	Butte	Oroville	1616 Oro Dam Boulevard	10/29/2007
California	Butte	Oroville	1660 20th Street	1/31/2008
California	Butte	Oroville	1660 20th Street	1/31/2008

California	Butte	Oroville	3 Alverda Drive	5/13/2008
California	Butte	Oroville	3 Alverda Drive	5/13/2008
California	Butte	Chico	1024 Neal Dow Avenue	6/7/2008
California	Butte	Honcut	16 Truxton Court	9/2/2008
California	Butte	Honcut	16 Truxton Court	9/2/2008
California	Butte	Oroville	1840 7th Street	9/17/2008
California	Butte	Oroville	1840 7th Street	9/17/2008
California	Butte	Chico	729 Nord Avenue	9/30/2008
California	Butte	Chico	729 Nord Avenue	9/30/2008
California	Butte	Oroville	5075 Lower Wyandotte Avenue	4/7/2009
California	Butte	Oroville	1960 Rose Street	4/7/2009
California	Butte	Oroville	1960 Rose Street	4/7/2009
California	Butte	Oroville	5075 Lower Wyandotte Avenue	4/7/2009
California	Butte	Gridley	124 East Gridley Road	5/14/2010
California	Butte	Gridley	124 East Gridley Road	5/14/2010
California	Butte	Durham	8200 Durnel Drive	5/22/2010
California	Butte	Durham	8200 Durnel Drive	5/22/2010
California	Calaveras	Mountain Ranch	5645 Doster Rd	12/20/2004
California	Calaveras	Mountain Ranch	5645 Doster Rd	12/20/2004
California	Contra Costa	Rodeo	1120 4th St	7/8/2004
California	Contra Costa	Rodeo	1120 4th St	7/8/2004
California	Contra Costa	Antioch	1927 Birch Ave	12/12/2004
California	Contra Costa	Martinez	625 Marina Vista St	3/22/2005
California	Contra Costa	Martinez	625 Marina Vista St	3/22/2005
California	Contra Costa	Richmond	2420 Esmond Avenue	12/5/2006
California	Contra Costa	El Sobrante	2211 Rancho Road	9/20/2007
California	Contra Costa	El Sobrante	2211 Rancho Road	9/20/2007
California	Contra Costa	Richmond	712 Bradford Drive	7/29/2008
California	Contra Costa	Richmond	712 Bradford Drive	7/29/2008
California	Contra Costa	Brentwood	638 Summerwood Drive	2/11/2010
California	Contra Costa	Brentwood	638 Summerwood Drive	2/11/2010
California	Contra Costa	Crockett	815 1st Avenue	12/9/2010
California	Contra Costa	Crockett	815 1st Avenue	12/9/2010
California	Contra Costa	Bay Point	71 Mountain View Avenue	3/22/2011
California	Contra Costa	Bay Point	71 Mountain View Avenue	3/22/2011
California	Contra Costa	Brentwood	1880 East Eden Plains Street	10/2/2014
California	Contra Costa	Brentwood	1880 East Eden Plains Street	10/2/2014
California	Contra Costa	Concord	5075 Commerical Circle	5/14/2020
California	Del Norte	Crescent City	1733 Wildwood Ln	4/14/2004
California	Del Norte	Crescent City	1733 Wildwood Ln	4/14/2004
California	El Dorado	El Dorado	6841 Union Mine Rd	4/29/2004
California	El Dorado	El Dorado	6841 Union Mine Rd	4/29/2004
California	Fresno	Reedley	22134 E Hogan Ave	1/15/2004
California	Fresno	Reedley	22134 E Hogan Ave	1/15/2004
California	Fresno	Fresno	12884 S Elm Ave	7/15/2004
California	Fresno	Fresno	12884 S Elm Ave	7/15/2004
California	Fresno	Fresno	1315 E Cornell	7/15/2004

California	Fresno	Fresno	1315 E Cornell	7/15/2004
California	Fresno	Fresno	7090 N Fruit Ave 140	7/29/2004
California	Fresno	Coalinga	47932 Lost Hills Rd	8/30/2004
California	Fresno	Fresno	4822 E Mono St	6/9/2005
California	Fresno	Fresno	4822 E Mono St	6/9/2005
California	Fresno	San Joaquin	2243 Eldorado S B	3/10/2006
California	Fresno	Fresno	2540 North Floyd Avenue	11/24/2006
California	Fresno	Fresno	2540 North Floyd Avenue	11/24/2006
California	Fresno	Caruthers	14594 South Elm Avenue	11/28/2006
California	Fresno	Caruthers	14594 South Elm Avenue	11/28/2006
California	Fresno	Fresno	8971 Mountain View	12/13/2006
California	Fresno	Fresno	8971 Mountain View	12/13/2006
California	Fresno	Fowler	6424 South Fowler Avenue	8/21/2007
California	Fresno	Reedley	20069 Clayton Avenue	12/8/2007
California	Fresno	Reedley	20069 Clayton Avenue	12/8/2007
California	Fresno	Fresno	4409 East Hedges Avenue A	12/16/2008
California	Fresno	Dos Palos	43186 Merrill Avenue	4/15/2010
California	Fresno	Dos Palos	43186 Merrill Avenue	4/15/2010
California	Fresno	Clovis	287 West Barstow Avenue 125	10/26/2012
California	Fresno	Fresno	3001 West Swift Ave Avenue 10	8/6/2013
California	Fresno	Fresno	3001 West Swift Ave Avenue 10	8/6/2013
California	Fresno	Squaw Valley	46992 Creekside Road	11/18/2013
California	Fresno	Fresno	4851 North N Cedar Ave Avenu	1/6/2014
California	Fresno	Fresno	3852 East E Olive Ave Avenue 2	1/14/2014
California	Fresno	Fresno	3852 East E Olive Ave Avenue 2	1/14/2014
California	Fresno	Fresno	3025 East E Gettysburg Ave Ave	1/21/2014
California	Fresno	Fresno	3025 East E Gettysburg Ave Ave	1/21/2014
California	Fresno	Fresno	7675 N First Street Box 203	9/6/2015
California	Fresno	Fresno	4102 E North Avenue	12/24/2015
California	Fresno	Fresno	2715 N Millbrook Avenue	2/3/2016
California	Fresno	Fresno	2715 N Millbrook Avenue	2/3/2016
California	Glenn	Willows	5627 County Road 69	5/12/2004
California	Glenn	Willows	5627 County Road 69	5/12/2004
California	Humboldt	Fortuna	1788 Penn Ave	3/2/2004
California	Humboldt	Fortuna	1788 Penn Ave	3/2/2004
California	Humboldt	Mckinleyville	2331 Central Ave 4	3/25/2004
California	Humboldt	Eureka	1984 Gage Ln	4/27/2004
California	Humboldt	Blue Lake	113 Raymar Ave	5/9/2005
California	Humboldt	Eureka	1034 14th St	6/6/2005
California	Humboldt	Eureka	1034 14th St	6/6/2005
California	Humboldt	Eureka	1323 Summer Street	6/15/2006
California	Humboldt	Arcata	258 Lupin Avenue	8/30/2006
California	Humboldt	Arcata	258 Lupin Avenue	8/30/2006
California	Imperial	Holtville	819 1/2 Fern St	1/28/2004
California	Imperial	Holtville	819 1/2 Fern St	1/28/2004
California	Imperial	Holtville	2300 Slayton Rd	2/5/2004
California	Imperial	Seeley	2205 Haskell Rd	7/20/2004

California	Imperial	Holtville	819 1/2 Fern Ave	3/20/2006
California	Imperial	Holtville	819 1/2 Fern Ave	3/20/2006
California	Kern	Shafter	18478 S Shafter Ave	1/23/2004
California	Kern	Shafter	18478 S Shafter Ave	1/23/2004
California	Kern	Delano	1305 20th Ave	2/4/2004
California	Kern	Delano	1305 20th Ave	2/4/2004
California	Kern	Bakersfield	8614 Fuller	2/22/2004
California	Kern	Bakersfield	2600 Norman Ave	5/26/2004
California	Kern	Bakersfield	2600 Norman Ave	5/26/2004
California	Kern	Shafter	31396 Burbank Ave	6/12/2004
California	Kern	Taft	412 Kern St	8/26/2004
California	Kern	Lake Isabella	3105 Wenyor	9/21/2004
California	Kern	Lake Isabella	3105 Wenyor	9/21/2004
California	Kern	Ridgecrest	709 W Atkins Ave	12/9/2004
California	Kern	Bakersfield	321 Oakdale Dr	3/15/2005
California	Kern	Bakersfield	2714 Allen Rd	3/22/2005
California	Kern	Bakersfield	2714 Allen Rd	3/22/2005
California	Kern	Taft	217 Lierly St	6/20/2005
California	Kern	Bakersfield	2314 Center St	10/19/2005
California	Kern	Bakersfield	200 Miraflores	2/28/2006
California	Kern	Bakersfield	200 Miraflores	2/28/2006
California	Kern	Bakersfield	101 Agarnsey Ln	3/20/2006
California	Kern	Bakersfield	101 Agarnsey Ln	3/20/2006
California	Kern	Bakersfield	109 Clyde Street	4/26/2006
California	Kern	Bakersfield	109 Clyde Street	4/26/2006
California	Kern	Bakersfield	200 Miraflores Avenue	3/18/2007
California	Kern	Bakersfield	200 Miraflores Avenue	3/18/2007
California	Kern	Ridgecrest	345 West Moyer Avenue	6/4/2007
California	Kern	Ridgecrest	345 West Moyer Avenue	6/4/2007
California	Kern	Lamont	10224 San Emidio Street	7/11/2007
California	Kern	Lamont	10224 San Emidio Street	7/11/2007
California	Kern	Lamont	8008 Middleton Lane	5/19/2008
California	Kern	Lamont	8008 Middleton Lane	5/19/2008
California	Kern	Johannesburg	405 Broadway Avenue	10/9/2008
California	Kern	Johannesburg	405 Broadway Avenue	10/9/2008
California	Kern	Bakersfield	8th Street	6/22/2009
California	Kern	Bakersfield	3801 Newcombe Court	3/3/2011
California	Kern	Bakersfield	3801 Newcombe Court	3/3/2011
California	Kern	Bakersfield	3804 La Tonia Court	3/3/2011
California	Kern	Bakersfield	3804 La Tonia Court	3/3/2011
California	Kern	Bakersfield	218 El Tejon Avenue	7/8/2011
California	Kern	Bakersfield	218 El Tejon Avenue	7/8/2011
California	Kern	Bakersfield	7601 Redbank	12/13/2011
California	Kern	Bakersfield	7601 Redbank	12/13/2011
California	Kings	Unincorporated	6260 Barstow Ave	5/21/2004
California	Kings	Unincorporated	6260 Barstow Ave	5/21/2004
California	Kings	Hanford	11111 9 3/4 Avenue	4/16/2007

California	Kings	Hanford	11111 9 3/4 Avenue	4/16/2007
California	Lake	Lakeport	525 Esplanade St	1/27/2004
California	Lake	Clearlake	13660 East Lake Dr	4/19/2004
California	Lake	Clearlake	13660 East Lake Dr	4/19/2004
California	Lake	Clearlake	15888 19th St	4/28/2004
California	Lake	Clearlake	15888 19th St	4/28/2004
California	Lake	Finley	3424 Stone Dr	9/15/2004
California	Lake	Finley	3424 Stone Dr	9/15/2004
California	Lake	Lower Lake	10243 Siegler Canyon Rd	11/17/2004
California	Lake	Lower Lake	10243 Siegler Canyon Rd	11/17/2004
California	Lake	Clearlake	16537 35th Ave	6/18/2005
California	Lake	Nice	6643 Collier	2/15/2006
California	Lake	Clearlake	13820 Manakee Drive	1/20/2010
California	Lake	Clearlake	13820 Manakee Drive	1/20/2010
California	Los Angeles	Redondo Beach	208 B Ave	1/4/2004
California	Los Angeles	Los Angeles	2742 Lanfranco St 7	1/7/2004
California	Los Angeles	Covina	444 Citrus N Ave	1/13/2004
California	Los Angeles	Santa Fe Springs	11462 Telegraph Rd	1/14/2004
California	Los Angeles	Littlerock	8632 Avenue U E	1/21/2004
California	Los Angeles	Long Beach	2520 Pacific Coast E Hwy 221	1/27/2004
California	Los Angeles	Lancaster	3995 Avenue H W	3/3/2004
California	Los Angeles	East Los Angeles	4135 Floral Ave	3/5/2004
California	Los Angeles	Compton	1016 Poinsettia S Ave	3/10/2004
California	Los Angeles	Llano	25757 V E Ave	3/24/2004
California	Los Angeles	Palmdale	38233 Hendon Dr	4/3/2004
California	Los Angeles	Torrance	4111 Pacific Coast Highway 308	4/11/2004
California	Los Angeles	Norwalk	11026 Imperial E Hwy 10	4/21/2004
California	Los Angeles	Los Angeles	560 Keenan Ave	5/12/2004
California	Los Angeles	La Canada Flintri	5016 Angeles Crest Hwy	5/25/2004
California	Los Angeles	Los Angeles	5320 1/2 Ithaca Ave	6/22/2004
California	Los Angeles	Whittier	8171 Washington Ave	6/24/2004
California	Los Angeles	Long Beach	1401 11 E St	7/1/2004
California	Los Angeles	Signal Hill	2210 Gaviota N Ave C	7/6/2004
California	Los Angeles	Glendora	19104 Manua Loa	7/21/2004
California	Los Angeles	Los Angeles	21150 Hobart	8/18/2004
California	Los Angeles	La Puente	410 Evanwood Ave	9/22/2004
California	Los Angeles	Baldwin Park	3109 Robinette Ave	9/28/2004
California	Los Angeles	San Dimas	1717 Monte Vista Dr	10/7/2004
California	Los Angeles	Pomona	320 Jefferson W Ave	10/19/2004
California	Los Angeles	Lynwood	10868 Drury Ln	10/29/2004
California	Los Angeles	El Monte	11828 Emery St	11/18/2004
California	Los Angeles	El Monte	4350 Ranger Ave	11/29/2004
California	Los Angeles	La Puente	18631 Altario St	1/13/2005
California	Los Angeles	Lancaster	42705 6th E St	2/3/2005
California	Los Angeles	Downey	9322 Stamps Ave	2/18/2005
California	Los Angeles	City Of Commerc	5820 Ramon Ct	4/14/2005
California	Los Angeles	San Pedro	975 5th W St	8/3/2005

California	Los Angeles	Winnetka	8474 Quartz Ave	9/28/2005
California	Los Angeles	Van Nuys	15149 Domino St	11/8/2005
California	Los Angeles	Whittier	6133 Mcnees Ave	1/14/2006
California	Los Angeles	Panorama City	8154 Allott	1/19/2006
California	Los Angeles	Wilmington	1724 Fries Ave	2/17/2006
California	Los Angeles	Gardena	14903 Chadron Ave 1	3/1/2006
California	Los Angeles	Los Angeles	1406 Gordon Street	3/26/2006
California	Los Angeles	Long Beach	2124 Mc Kenzie Avenue	4/25/2006
California	Los Angeles	Lancaster	44634 Date Avenue	6/2/2006
California	Los Angeles	Shadow Hills	10339 Johanna Avenue	6/22/2006
California	Los Angeles	Los Angeles	123 S Lake Street	7/14/2006
California	Los Angeles	Sylmar	12600 Bradley Street	7/19/2006
California	Los Angeles	Diamond Bar	2620 Castlerock Road	8/1/2006
California	Los Angeles	Covina	19850 Arrow Highway	8/6/2006
California	Los Angeles	Los Angeles	3015 Sunnynook Drive	8/11/2006
California	Los Angeles	Palmdale	38566 East 35th Street	10/3/2006
California	Los Angeles	Los Angeles	244 47th Place	10/12/2006
California	Los Angeles	Los Angeles	244 West 47th Place	10/12/2006
California	Los Angeles	Pomona	1347 Cambrin Road	12/7/2006
California	Los Angeles	Los Angeles	11630 West 207th Street	12/7/2006
California	Los Angeles	Cerritos	12513 Sandy Creek Lane	3/9/2007
California	Los Angeles	Long Beach	1624 Junipero Avenue	4/4/2007
California	Los Angeles	Whittier	10816 Townley Drive	5/11/2007
California	Los Angeles	Huntington Park	2505 Olive Street	5/15/2007
California	Los Angeles	South Gate	2634 Palm Place	5/29/2007
California	Los Angeles	Pomona	260 La Verne Avenue	7/12/2007
California	Los Angeles	Lancaster	45448 Elm	7/14/2007
California	Los Angeles	Wilmington	1630 Sandison Street	7/20/2007
California	Los Angeles	Los Angeles	321 Westminster Avenue	8/9/2007
California	Los Angeles	Los Angeles	1216 Hanover Avenue	8/12/2007
California	Los Angeles	Huntington Park	6418 Seville	9/18/2007
California	Los Angeles	Los Angeles	359 71st Street	10/10/2007
California	Los Angeles	Diamond Bar	749 Featherwood Drive	11/1/2007
California	Los Angeles	Long Beach	3613 La Jara Street	11/14/2007
California	Los Angeles	Los Angeles	3744 59th Street	12/20/2007
California	Los Angeles	Van Nuys	7400 Sepulveda Boulevard	2/12/2008
California	Los Angeles	Los Angeles	218 1/2 54th Street	3/14/2008
California	Los Angeles	Los Angeles	4154 Compton Avenue	4/17/2008
California	Los Angeles	Downey	10350 Haledon Avenue	5/21/2008
California	Los Angeles	Baldwin Park	4442 Edra Avenue	6/16/2008
California	Los Angeles	Encino	17448 Ventura Boulevard	8/11/2008
California	Los Angeles	Bellflower	17122 Downey Avenue	11/2/2008
California	Los Angeles	Huntington Park	2409 Olive Street	11/18/2008
California	Los Angeles	Long Beach	1875 Lime Avenue	12/22/2008
California	Los Angeles	Los Angeles	6118 Hooper Street	4/24/2009
California	Los Angeles	Bell	3717 Bell Avenue	6/6/2009
California	Los Angeles	Los Angeles	5170 South Normandie Avenue	1/3/2010

California	Los Angeles	Los Angeles	2109 Estrella Avenue	2/2/2010
California	Los Angeles	Long Beach	2345 East Harding Street	2/4/2010
California	Los Angeles	Long Beach	2454 Easy Avenue	2/10/2010
California	Los Angeles	Santa Fe Springs	13310 Telegraph Road	4/14/2010
California	Los Angeles	Bell Gardens	7534 Purdy Street	5/1/2010
California	Los Angeles	Inglewood	8815 South Van Ness Avenue	5/4/2010
California	Los Angeles	Los Angeles	6516 South Main Street	6/2/2010
California	Los Angeles	Norwalk	12618 Studebaker Road	6/14/2010
California	Los Angeles	Hawthorne	12600 Prairie Avenue	7/19/2010
California	Los Angeles	Hawthorne	2851 West 120th Street	7/22/2010
California	Los Angeles	Los Angeles	213 1/2 West 66 Street	9/21/2010
California	Los Angeles	Hawthorne	13611 Doty Avenue	2/3/2011
California	Los Angeles	Los Angeles	1564 East 117th Street	4/4/2013
California	Los Angeles	Artesia	11635 Artesia Boulevard	5/1/2013
California	Los Angeles	Beverly Hills	712 North Rexford Drive	6/1/2013
California	Los Angeles	Covina	771 Rancho Simi Drive	6/1/2016
California	Los Angeles	Compton	14502 S Keene Ave	8/14/2016
California	Los Angeles	Gardena	1218 W 134th St	9/25/2016
California	Los Angeles	North Hollywooc	7829 Nagle Av	12/10/2017
California	Los Angeles	Lancaster	42835 San Francisco Av	12/10/2017
California	Madera	Chowchilla	18899 Road 16	4/28/2004
California	Madera	Chowchilla	1304 Colusa Ave A	1/25/2005
California	Madera	Madera	21442 Avenue 19 Ave	2/10/2005
California	Madera	Madera	815 East Clinton Avenue	8/29/2006
California	Madera	Madera	18697 Avenue Pass	8/21/2007
California	Madera	Madera	512 Fein Street	8/25/2007
California	Madera	Madera	35626 14 1/2 Avenue	2/1/2008
California	Madera	Madera	13577 20th Avenue	9/4/2008
California	Madera	Madera	19184 Ave 18	5/15/2014
California	Madera	Madera	25816 Avenue 18 1/2	6/14/2016
California	Madera	Madera	11265 Iowa Av	12/27/2017
California	Mendocino	Fort Bragg	16900 Franklin Road	5/9/2006
California	Mendocino	Willits	65000 Sherwood Ridge Road	2/20/2008
California	Mendocino	Redwood Valley	9800 West Road	4/9/2009
California	Mendocino	Philo	3500 Little Mill Creek Road	5/6/2010
California	Mendocino	Fort Bragg	621 West St	9/16/2016
California	Mendocino	Hopland	14410 Mountain House Rd	9/21/2016
California	Merced	Merced	2536 Lobo	2/4/2004
California	Merced	Stevinson	18910 W 6th St	2/10/2004
California	Merced	Merced	3613 N Garner Rd	2/27/2004
California	Merced	Livingston	5679 Arena Way	4/6/2004
California	Merced	Hilmar	20295 August Rd	4/15/2004
California	Merced	Cressey	9835 Cressey	6/3/2004
California	Merced	Delhi	16235 Redbud Ct	6/29/2004
California	Merced	South Dos Palos	8827 W K St	7/23/2004
California	Merced	Winton	9605 Eucalyptus Ave	8/8/2004
California	Merced	Winton	6280 Central Ave	8/8/2004

California	Merced	Hilmar	19511 Williams Ave	10/13/2004
California	Merced	Merced	321 S 59 S Hwy	1/3/2005
California	Merced	Gustine	8450 Highway 33 S Hwy	3/2/2005
California	Merced	Atwater	9000 Moran Ave	5/11/2005
California	Merced	Atwater	1236 Hull Rd	9/23/2005
California	Merced	Stevinson	23875 Second Avenue	3/27/2006
California	Merced	Los Banos	313 J Street	8/11/2006
California	Merced	Atwater	1001 Sandpiper Way	11/15/2006
California	Merced	Delhi	8620 Hinton	11/15/2006
California	Merced	Merced	824 S Freya	1/25/2007
California	Merced	Winton	7409 Amanda Drive	3/13/2007
California	Merced	Merced	2499 East Gerard Avenue	3/21/2007
California	Merced	Merced	14717 East 272nd	9/6/2007
California	Merced	Hilmar	250 N Union	10/12/2007
California	Merced	Merced	5 West 25th Street 2	1/16/2008
California	Merced	Stevinson	2917 Cemetery Road	2/20/2008
California	Merced	Stevinson	2991 Cemetery	2/20/2008
California	Merced	Winton	6814 Arlene Way	3/12/2008
California	Merced	Atwater	4146 South Elliott Road	8/11/2008
California	Merced	Delhi	15575 August Avenue	9/8/2008
California	Merced	Ballico	11368 North Santa Fe Avenue	1/10/2010
California	Merced	Hilmar	19542 East First Street	4/1/2010
California	Merced	Winton	7125 North Vine Avenue	4/21/2010
California	Merced	Stevinson	2228 Nelander Avenue	4/27/2010
California	Merced	Livingston	15290 Sunset Drive	5/22/2010
California	Merced	Delhi	9640 Sands Road	6/6/2010
California	Merced	Winton	7040 Myrtle Avenue	2/8/2016
California	Merced	Atwater	2521 Boulder Dr	9/21/2016
California	Monterey	Salinas	1769 Yosemite Cir	5/21/2004
California	Monterey	Pacific Grove	316 Prescott Ln	7/16/2004
California	Monterey	Salinas	1233 East Polk Street	6/20/2007
California	Monterey	Salinas	18840 Northeast Eisenhowere I	6/20/2007
California	Monterey	Greenfield	424 7th Avenue	9/19/2010
California	Nevada	Grass Valley	439 Neal St 1	7/30/2004
California	Orange	Laguna Beach	985 Pacific Coast N Hwy	2/1/2004
California	Orange	Buena Park	7555 Beach Blvd 128	2/10/2004
California	Orange	Irvine	173 Topeka	2/11/2004
California	Orange	Tustin	13624 Estero Cir	4/24/2004
California	Orange	Santa Ana	1137 Mcfadden W	7/7/2004
California	Orange	Westminster	7681 Baylor Dr	7/15/2004
California	Orange	La Habra	2320 Story Ave	7/16/2004
California	Orange	Garden Grove	8062 Garden Grove Blvd 241	9/21/2004
California	Orange	Orange	2135 Almond W St	10/15/2004
California	Orange	Santa Ana	1233 Genoa S Dr	11/30/2004
California	Orange	Cypress	4812 Grace Avenue	4/10/2006
California	Orange	Westminster	9851 Bolsa Avenue	5/5/2006
California	Orange	Westminster	5051 Princeton Avenue	5/17/2006

California	Orange	La Palma	4761 Sharon Drive A	7/17/2006
California	Orange	Stanton	10698 Court Street	9/15/2006
California	Orange	Stanton	7701 Westbrook Way	4/19/2007
California	Orange	Yorba Linda	5471 Jefferson Street	11/13/2007
California	Orange	Fullerton	641 Commonwealth Avenue	12/7/2007
California	Orange	Anaheim	131 Magnolia Avenue	3/21/2008
California	Orange	Anaheim	3554 West Cornelia Circle	3/24/2008
California	Orange	Anaheim	1819 Cris	3/27/2008
California	Orange	Anaheim	1261 Placentia Street	3/29/2008
California	Orange	Anaheim	2500 East Terrace Street	4/8/2008
California	Orange	Santa Ana	1314 Harbor Boulevard	4/9/2008
California	Orange	Garden Grove	9755 Bixby Avenue	4/11/2008
California	Orange	Costa Mesa	929 Joann Street	5/13/2008
California	Orange	Santa Ana	3012 Halladay	5/19/2008
California	Orange	Santa Ana	412 Baker Street	5/21/2008
California	Orange	Orange	207 Esplande Street	5/30/2008
California	Orange	Santa Ana	702 Santa Ana Boulevard	7/14/2008
California	Orange	Anaheim	622 Velare Avenue	9/16/2008
California	Orange	Westminster	13100 Goldenwest Street	4/28/2009
California	Orange	Santa Ana	1450 Auto Drive	5/11/2009
California	Orange	Garden Grove	10042 Lampson Avenue	5/13/2009
California	Orange	Westminster	6942 Garden Grove Boulevard	5/21/2009
California	Orange	Buena Park	7111 Beach Boulevard	2/10/2010
California	Orange	Garden Grove	13691 Barnett Way	2/13/2010
California	Orange	Anaheim	1303 West Marlboro Avenue	2/22/2010
California	Orange	Placentia	745 Dunn	3/16/2010
California	Orange	Irvine	87 Pinestone	3/23/2010
California	Orange	Orange	2300 North Tustin Avenue	3/29/2010
California	Orange	Huntington Beac	8230 Talbert	4/7/2010
California	Orange	Santa Ana	4417 Morningside	4/28/2010
California	Orange	Brea	2595 Imperial Highway	5/20/2010
California	Orange	Santa Ana	800 South Sullivan Street D3	12/23/2011
California	Orange	Anaheim	10141 Gravier St	12/8/2017
California	Plumas	Portola	5630 Casey Jones Road	4/14/2006
California	Plumas	Chester	460 Melissa Avenue	10/11/2007
California	Plumas	Quincy Junction	1426 Butterfly Valley Road	2/17/2010
California	Plumas	Portola	324 Bella Vista	3/9/2010
California	Riverside	Desert Hot Sprin	66366 6th St	1/20/2004
California	Riverside	Riverside	344 N State 148	1/28/2004
California	Riverside	Hemet	531 Cedar Ln 2	2/7/2004
California	Riverside	Perris	332 W 11th St	2/8/2004
California	Riverside	Hemet	1675 Cobble Ln	2/11/2004
California	Riverside	Cathedral City	68557 C Street	2/16/2004
California	Riverside	Hemet	1097 N State St 2	2/18/2004
California	Riverside	Glen Avon Heigh	4080 Conning	2/29/2004
California	Riverside	Corona	734 Viewtop Ln	3/12/2004
California	Riverside	El Cerrito	19078 Rising Sun Rd	3/12/2004

California	Riverside	Norco	2574 Ridgecrest	3/16/2004
California	Riverside	Hemet	772 N State	3/24/2004
California	Riverside	Hemet	225 S Elk St 36	3/30/2004
California	Riverside	Riverside	5861 Mitchell	3/31/2004
California	Riverside	Corona	995 Pomona Rd 17	4/2/2004
California	Riverside	Beaumont	34250 San Timiteo Canyon Rd	4/15/2004
California	Riverside	Beaumont	1016 Palm Ave	4/19/2004
California	Riverside	Lake Elsinore	17911 Thoreson	4/29/2004
California	Riverside	Hemet	43939 Florida Ave	5/4/2004
California	Riverside	Hemet	585 S Santa Fe	5/15/2004
California	Riverside	Winchester	33091 Willard	5/20/2004
California	Riverside	Hemet	2688 E Florida Ave 18	6/4/2004
California	Riverside	Indio	46540 Padua Cir	6/9/2004
California	Riverside	Anza	57310 Valley Vista	6/11/2004
California	Riverside	Perris	143 Perou St	6/27/2004
California	Riverside	Victorville	20197 Nandina Ave	7/9/2004
California	Riverside	Corona	1330 W 8th St 18	7/21/2004
California	Riverside	Perris	618 Bond Dr	7/29/2004
California	Riverside	San Jacinto	437 Mead	8/2/2004
California	Riverside	Moreno Valley	25204 Bridle Trail	8/29/2004
California	Riverside	Indio	47800 Madison St 169	9/21/2004
California	Riverside	Lake Matthews	17224 Cajon Dr	9/28/2004
California	Riverside	Banning	1007 Linda Vista Rd	10/26/2004
California	Riverside	Victorville	22875 Rios	11/16/2004
California	Riverside	Menifee	26814 Madera Ct	12/6/2004
California	Riverside	Hemet	4400 Florida W Ave 117	12/8/2004
California	Riverside	Hemet	41251 Rope Rd	1/29/2005
California	Riverside	Perris	4715 Wade Ave	3/3/2005
California	Riverside	San Jacinto	344 N State St Sp 196	6/15/2005
California	Riverside	Perris	19881 Gustin Rd	12/12/2005
California	Riverside	Hemet	525 Gilbert N 49	1/20/2006
California	Riverside	Lake Elsinore	34323 Sunrise Drive	1/27/2006
California	Riverside	Corona	446 Francis E St	2/2/2006
California	Riverside	San Jacinto	610 Washington E Ave	2/22/2006
California	Riverside	Hemet	25873 Riverview Lane	3/15/2006
California	Riverside	Desert Hot Sprin	13255 Mexquite Avenue	3/23/2006
California	Riverside	San Jacinto	182 De Anza	4/20/2006
California	Riverside	Nuevo	22788 Via Santana	4/21/2006
California	Riverside	Calimesa	9453 Sharondale Road	6/8/2006
California	Riverside	Riverside	11235 Cypress	6/27/2006
California	Riverside	Mountain Cente	63137 Jeraboa Road	4/12/2007
California	Riverside	Corona	379 East Rancho Road	1/2/2008
California	Riverside	Norco	3117 Shadow Canyon Circle	1/31/2008
California	Riverside	Hemet	32809 Red Mountain Road	2/18/2008
California	Riverside	Palm Springs	383 Vereda Norte	6/20/2008
California	Riverside	Perris	21747 Webster Avenue	8/7/2008
California	Riverside	Perris	21881 Oleander Avenue	8/29/2008

California	Riverside	Mira Loma	10351 Oak Bark Lane	11/12/2008
California	Riverside	Desert Hot Sprin	12155 Ocotillo Road	4/29/2009
California	Riverside	Hemet	871 San Mateo Circle	5/21/2009
California	Riverside	Temecula	29774 Calle Pantano	2/2/2010
California	Riverside	Riverside	4080 Pedley Road	2/5/2010
California	Riverside	Banning	514 East Victory Avenue	3/21/2010
California	Riverside	Riverside	11744 Hazeldell Drive	4/2/2010
California	Riverside	Riverside	12172 Severn Way	4/2/2010
California	Riverside	Perris	644 Primrose Place	4/8/2011
California	Riverside	Perris	2520 Spectacular Bid Street	7/29/2014
California	Riverside	Moreno Valley	16329 Saddleback Lane	2/3/2015
California	Riverside	Moreno Valley	25399 Todd Drive	8/15/2015
California	Riverside	Moreno Valley	16329 Saddlebrook Lane	2/9/2016
California	Riverside	Hemet	1610 Bluejay Way	3/2/2016
California	Riverside	Indio	43430 Monroe St	9/3/2016
California	Riverside	Coachella	731 Orchard St	10/4/2016
California	Riverside	Mira Loma	12332 Kern River Dr	12/6/2017
California	Riverside	Temecula	30984 Lolita Rd	12/7/2017
California	Sacramento	Sacramento	4405 23rd St	2/4/2004
California	Sacramento	Sacramento	4719 Hayford Way	2/24/2004
California	Sacramento	Sacramento	7624 Birdie Ct	3/23/2004
California	Sacramento	Sacramento	1536 Strader Ave	3/26/2004
California	Sacramento	Sacramento	5867 Auburn Blvd 30	3/30/2004
California	Sacramento	Sacramento	2530 Street S 8	4/1/2004
California	Sacramento	Rancho Cordova	10892 Walnutwood Way	4/4/2004
California	Sacramento	Elverta	2495 Rhine Way	8/5/2004
California	Sacramento	Sacramento	3534 Summer Park Dr 354	10/8/2004
California	Sacramento	Elk Grove	5354 Jade Creek	2/23/2005
California	Sacramento	Elverta	2110 Quail Ranch Court	2/28/2006
California	Sacramento	Sacramento	4144 Cabinet Circle	3/6/2006
California	Sacramento		5140 W Sherman Island Road	5/13/2006
California	Sacramento	Sacramento	7662 Country Park Drive	6/6/2006
California	Sacramento	Sacramento	5230 Palm	1/30/2007
California	Sacramento	Sacramento	2681 Fairfield Street	2/13/2007
California	Sacramento	Citrus Heights	7401 Lovato	6/23/2007
California	Sacramento	Sacramento	6316 Welty Way	12/3/2008
California	Sacramento	Galt	132 4th	4/20/2010
California	San Bernardino	Fontana	14430 Santa Ana	1/15/2004
California	San Bernardino	Ontario	844 Wysteria E Ct	1/21/2004
California	San Bernardino	Redlands	1034 Alta St	1/28/2004
California	San Bernardino	Victorville	16717 C St	1/30/2004
California	San Bernardino	Chino	11838 Central Ave 93	2/11/2004
California	San Bernardino	Rialto	349 N Lilac	2/17/2004
California	San Bernardino	Apple Valley	21845 Arapahoe St 1	2/17/2004
California	San Bernardino	Victorville	16868 Stoddard Wells Rd	2/19/2004
California	San Bernardino	Twentynine Paln	4828 Lear Ave	2/22/2004
California	San Bernardino	Hesperia	14926 Fir St	2/25/2004

California	San Bernardino	San Bernardino	1443 Cedar 23	3/9/2004
California	San Bernardino	Victorville	15330 Condor Rd	3/9/2004
California	San Bernardino	Newberry Spring	52875 Bedford Rd	3/25/2004
California	San Bernardino	Fontana	13519 Arrow Rt	3/30/2004
California	San Bernardino	Twentynine Paln	7580 Mac Rd	3/31/2004
California	San Bernardino	San Bernardino	1443 Cedar St 1	4/9/2004
California	San Bernardino	Twentynine Paln	5665 Aeronia	4/15/2004
California	San Bernardino	Baker	71759 Baker Blvd	4/16/2004
California	San Bernardino	Highland	7409 Los Feliz Dr	4/23/2004
California	San Bernardino	San Bernardino	3160 N State St	4/23/2004
California	San Bernardino	Phelan	8135 Joshua St	4/27/2004
California	San Bernardino	Chino	12018 Central Ave	5/13/2004
California	San Bernardino	Highland	25715 Lime St	5/18/2004
California	San Bernardino	Apple Valley	10620 Matilija	5/21/2004
California	San Bernardino	Highland	28457 Merrion Ave	5/21/2004
California	San Bernardino	San Bernardino	2176 Amanda St	5/21/2004
California	San Bernardino	Joshua Tree	62475 Cove Ln	5/27/2004
California	San Bernardino	Apple Valley	10808 Mills Rd	6/2/2004
California	San Bernardino	Barstow	24966 Camino Del Sol St	6/7/2004
California	San Bernardino	Hesperia	15356 Pendleton	6/16/2004
California	San Bernardino	Twentynine Paln	68077 Indian Trail	6/16/2004
California	San Bernardino	Muscoy	2544 3rd St	6/23/2004
California	San Bernardino	Newberry Spring	47962 Horner Rd	6/24/2004
California	San Bernardino	Hesperia	11976 Mariposa Rd	7/3/2004
California	San Bernardino	Ontario	1506 E Highland Ct	7/26/2004
California	San Bernardino	Fontana	7642 Kempster Ave	9/7/2004
California	San Bernardino	Phelan	6721 Nielson Rd	9/17/2004
California	San Bernardino	Barstow	2577 Community Blvd	9/18/2004
California	San Bernardino	Joshua Tree	3255 Sunset Rd	9/26/2004
California	San Bernardino	Rancho Cucamor	7651 Effen	10/1/2004
California	San Bernardino	Hesperia	7892 Alston	10/1/2004
California	San Bernardino	Newberry Spring	35377 Newberry Rd	10/11/2004
California	San Bernardino	Phelan	11480 Macron	10/19/2004
California	San Bernardino	Victorville	17053 B St	10/19/2004
California	San Bernardino	Victorville	16688 Hughes	10/21/2004
California	San Bernardino	Redlands	28565 San Timoteo Canyon	10/25/2004
California	San Bernardino	San Bernardino	1162 E 2nd	11/16/2004
California	San Bernardino	Bloomington	16742 14th St	11/17/2004
California	San Bernardino	Barstow	29779 N 1st	11/18/2004
California	San Bernardino	Chino Hills	15553 Esther St	12/13/2004
California	San Bernardino	San Bernardino	2547 3rd Ave	12/28/2004
California	San Bernardino	Trona	13860 Fremont St 2	12/30/2004
California	San Bernardino	Barstow	434 S Second St 1	1/1/2005
California	San Bernardino	Upland	359 Seventh St	1/5/2005
California	San Bernardino	San Bernardino	123 E 11th St	1/19/2005
California	San Bernardino	San Bernardino	1318 E Gould St	1/22/2005
California	San Bernardino	Redlands	2155 Citrus Ave 112	2/14/2005

California	San Bernardino	Yucaipa	12470 15th St	5/25/2005
California	San Bernardino	Hesperia	10721 Maple St	7/29/2005
California	San Bernardino	Victorville	16262 Yucca Ave	8/1/2005
California	San Bernardino	San Bernardino	11571 5th St	8/29/2005
California	San Bernardino	Victorville	11550 White Rd	10/17/2005
California	San Bernardino	Hesperia	9553 Los Banos Ave	1/12/2006
California	San Bernardino	Victorville	13126 Mesa	2/7/2006
California	San Bernardino	Ontario	956 Princeton W St	2/10/2006
California	San Bernardino	Victorville	16755 Union St B	2/24/2006
California	San Bernardino	Victorville	15618 Topango Road	3/2/2006
California	San Bernardino	San Bernardino	2131 Genevieve Street	3/10/2006
California	San Bernardino	Victorville	13602 Nassau Drive	3/15/2006
California	San Bernardino	San Bernardino	756 W 19 St	3/16/2006
California	San Bernardino	Fontana	17265 Lurelane Street	3/20/2006
California	San Bernardino	Redlands	828 6th Street	3/23/2006
California	San Bernardino	Hesperia	11516 Hawthorne	3/25/2006
California	San Bernardino	Newberry Spring	42378 Silver Valley Road	4/21/2006
California	San Bernardino	Hesperia	9393 Hickory	6/8/2006
California	San Bernardino	Hesperia	10983 4th Avenue	6/9/2006
California	San Bernardino	Oro Grande	21451 National Trails Highway	6/13/2006
California	San Bernardino	Fontana	13449 Ivy	6/15/2006
California	San Bernardino	Loma Linda	26232 Newport Avenue	8/1/2006
California	San Bernardino	Yermo	37933 Grandview Avenue	8/10/2006
California	San Bernardino	Yucca Valley	58620 San Marino Drive	9/6/2006
California	San Bernardino	San Bernardino	19829 Kendall Drive	9/12/2006
California	San Bernardino	San Bernardino	2292 Portola Street	10/13/2006
California	San Bernardino	Apple Valley	12618 Pocono Road	10/15/2006
California	San Bernardino	Fontana	14349 Figwood Drive	12/13/2006
California	San Bernardino	Victorville	14349 Hesperia Road	12/21/2006
California	San Bernardino	Apple Valley	20024 Happy Trails Highway	1/4/2007
California	San Bernardino	Hesperia	13010 Prairie Trail	2/22/2007
California	San Bernardino	Pinon Hills	11475 Prado Road	3/27/2007
California	San Bernardino	Victorville	13852 Burning Tree Lane	5/3/2007
California	San Bernardino	Redlands	511 Redlands Boulevard	5/16/2007
California	San Bernardino	Colton	1822 Admiralty Street	6/15/2007
California	San Bernardino	San Bernardino	243 Meridian Avenue	7/18/2007
California	San Bernardino	Victorville	16753 Zenda Street	8/6/2007
California	San Bernardino	Ontario	740 Camalot	9/10/2007
California	San Bernardino	San Bernardino	223 49th	11/7/2007
California	San Bernardino	San Bernardino	1431 7th Street	11/26/2007
California	San Bernardino	Adelanto	17526 Keats Road	11/29/2007
California	San Bernardino	Rialto	624 Etiwanda Avenue	12/22/2007
California	San Bernardino	Joshua Tree	8997 Tortuga Road	1/14/2008
California	San Bernardino	San Bernardino	6317 Bonnie Street	4/3/2008
California	San Bernardino	Fontana	16411 Athol Street	4/17/2008
California	San Bernardino	San Bernardino	7234 Dwight Way	7/1/2008
California	San Bernardino	Landers	57646 Linn Road	10/14/2008

California	San Bernardino	Hesperia	9519 Maple Avenue	10/18/2008
California	San Bernardino	Hinkley	23572 State Highway 58	4/5/2009
California	San Bernardino	Apple Valley	9611 Navajo Road	5/5/2009
California	San Bernardino	Victorville	13143 Sleepy Ridge Lane	3/5/2010
California	San Bernardino	San Bernardino	205 West Benedict Road	4/2/2010
California	San Diego	Boulevard	2605 Paseo Alta Ct	1/7/2004
California	San Diego	San Ysidro	905 Hwy Caliente Rd	1/16/2004
California	San Diego	San Diego	875 Hotel S Cir	1/30/2004
California	San Diego	Santee	8593 Magnolia Ave	1/30/2004
California	San Diego	Escondido	1306 Ronda Ave	3/23/2004
California	San Diego	Fallbrook	422 Catalpa Ln	5/19/2004
California	San Diego	San Diego	6173 Fauna Drive	5/21/2004
California	San Diego	Lakeside	11441 El Nopal	8/12/2004
California	San Diego	Escondido	431 4th E Ave 1b	8/31/2004
California	San Diego	San Diego	4242 34th St D	9/16/2004
California	San Diego	Vista	1280 Hacienda Dr G6	11/24/2004
California	San Diego	Escondido	16975 Guejito Rd	3/3/2005
California	San Diego	Escondido	1825 East Valley Way	6/6/2006
California	San Diego	Vista	1710 Avocado Drive	9/14/2006
California	San Diego	Oceanside	3965 Brown Street	9/20/2006
California	San Diego	Vista	663 Eucalyptus	4/3/2007
California	San Diego	La Puente	1254 Bannon	5/10/2007
California	San Diego	San Diego	3835 Midway #203 Drive	6/20/2007
California	San Diego	Vista	526 Mar Vista Drive	11/29/2007
California	San Diego	Vista	1610 N Santa Fe	4/9/2008
California	San Diego	Valley Center	30118 Miller Road	11/7/2008
California	San Diego	San Diego	9777 De La Amistad Viaduct	6/12/2009
California	San Diego	Escondido Juncti	1531 Montiel	1/20/2010
California	San Diego	Carlsbad	847 Laguna	8/8/2010
California	San Diego	Carlsbad	382 Acacia	8/8/2010
California	San Diego	Alpine	404 Summerhill Terrace	12/2/2013
California	San Francisco	San Francisco	35 Belvedere St 5	3/29/2006
California	San Joaquin	Stockton	7790 N Ashley Ln	1/20/2004
California	San Joaquin	Stockton	9800 E Eight Mile Rd	4/16/2004
California	San Joaquin	Stockton	5708 N Highway 99	4/18/2004
California	San Joaquin	Stockton	1560 Silver Creek	4/22/2004
California	San Joaquin	Stockton	10285 Hildreth Ln	6/30/2004
California	San Joaquin	Stockton	2717 W March Ln	7/31/2004
California	San Joaquin	Stockton	2654 W March Ln 304	8/4/2004
California	San Joaquin	Stockton	3416 Farmington E Rd 2	8/26/2004
California	San Joaquin	Stockton	2274 E Fremont	9/25/2004
California	San Joaquin	Stockton	2071 La Jolla Dr	4/25/2005
California	San Joaquin	Stockton	2553 Michaelangelo Drive	6/1/2006
California	San Joaquin	Tracy	14703 Finck Road	8/3/2006
California	San Joaquin	Stockton	301 Morada	4/19/2007
California	San Joaquin	Manteca	481 South Union Road	4/20/2007
California	San Joaquin	Lathrop	15523 Sixth Street	10/11/2007

California	San Joaquin	Tracy	11422 West Larch Road	3/14/2008
California	San Luis Obispo	Atascadero	1400 San Ramon	1/5/2004
California	San Luis Obispo	Atascadero	4080 Dolores Avenue	3/14/2006
California	San Luis Obispo	Grover Beach	448 North 9th Street	3/30/2006
California	San Luis Obispo	Morro Bay	525 Atascadero Road	7/12/2006
California	San Luis Obispo	San Luis Obispo	3500 Bullock	8/29/2006
California	San Luis Obispo	Paso Robles	749 Orchard	9/5/2006
California	San Luis Obispo	Templeton	30 Danelion Road	1/15/2007
California	San Luis Obispo	Nipomo	155 East Price Street	4/29/2008
California	San Luis Obispo	San Luis Obispo	1771 Cordova	12/7/2011
California	San Mateo	East Palo Alto	1894 Bay Road	6/4/2006
California	San Mateo	Belmont	926 South Road	6/21/2006
California	San Mateo	Daly City	439 Bonnie Street	1/14/2010
California	Santa Clara	San Jose	3570 Columbine Dr	1/15/2004
California	Santa Clara	San Jose	110 Roundtable Dr 1	2/8/2004
California	Santa Clara	Gilroy	7860 Driftwood Ter A	4/3/2004
California	Santa Clara	San Jose	1374 Randol Ave	5/5/2004
California	Santa Clara	Santa Clara	1232 Warburton Ave	6/8/2004
California	Santa Clara	San Jose	90 Saddlebrook Dr	6/22/2004
California	Santa Clara	San Jose	935 Foxchase Dr 413	9/21/2004
California	Santa Clara	Morgan Hill	6760 Croy Rd	9/29/2004
California	Santa Clara	Los Altos	25562 Fernhill Dr	10/26/2004
California	Santa Clara	San Jose	2251 Lansford Ave	11/15/2004
California	Santa Clara	San Jose	1425 Stahl St	10/16/2005
California	Santa Clara	San Jose	1560 Darlene Ave	1/24/2006
California	Santa Clara	San Jose	1919 Fruitdale Avenue	5/11/2006
California	Santa Clara	San Jose	4075 Hobart Avenue	4/27/2007
California	Santa Clara	Campbell	768 Nevins Street	7/11/2007
California	Santa Clara	San Jose	2475 Glen Angus Way	2/21/2008
California	Santa Clara	Santa Clara	2597 Borax Drive	2/22/2008
California	Santa Clara	San Jose	843 Spindrift Way	3/18/2008
California	Santa Clara	San Jose	1480 Douglas Street	3/20/2008
California	Santa Clara	San Jose	71 Avenida Espana	5/29/2008
California	Santa Clara	San Jose	973 Idlewood Drive	8/31/2008
California	Santa Clara	San Jose	800 Saratoga Avenue A308	6/10/2010
California	Santa Clara	Gilroy	2250 Roop Rd Road	8/19/2010
California	Santa Clara	San Jose	5674 San Felipe Road	8/26/2010
California	Santa Clara	Santa Clara	2147 Newhall Street	3/9/2011
California	Santa Clara	San Jose	315 N 21st Street	9/18/2015
California	Santa Clara	Santa Clara	930 El Camino Real	5/19/2016
California	Santa Cruz	Soquel	2600 41st St	8/12/2004
California	Santa Cruz	Santa Cruz	911 Soquel Ave	3/18/2005
California	Santa Cruz	Santa Cruz	231 Felix Street	5/2/2006
California	Santa Cruz	Santa Cruz	870 17th Avenue	9/29/2006
California	Santa Cruz	Watsonville	216 Silverleaf Drive	10/17/2007
California	Santa Cruz	Santa Cruz	15769 Comstock Mill Road	3/13/2008
California	Santa Cruz	Capitola	1066 41st Avenue	9/12/2010

California	Shasta	Redding	1420 Arizona Street	2/2/2004
California	Shasta	Redding	781 S Street	3/21/2004
California	Shasta	Redding	12691 Williamson Rd	3/30/2004
California	Shasta	Anderson	6465 Saddle Trail Rd	7/29/2004
California	Shasta	Redding	80 Churn Creek Rd	7/18/2005
California	Shasta	Igo	14463 Windwalker Ln	3/27/2006
California	Shasta	Shingletown	7498 Hilda Rd	4/13/2006
California	Shasta	Redding	3115 Stratford Avenue	9/19/2006
California	Shasta	Redding	1571 College View Drive	8/29/2007
California	Shasta	Redding	13922a Sundust Road	3/11/2010
California	Siskiyou	Weed	208 Jackson St	2/21/2004
California	Siskiyou	Dorris	2100 Sheepy Island Rd 437	3/3/2004
California	Solano	Vallejo	1130 Monterey St	2/12/2004
California	Solano	Dixon	805 N Adams St 110	3/23/2004
California	Solano	Vallejo	1163 Lewis Ave	3/30/2004
California	Solano	Vallejo	618 Main St	4/20/2004
California	Solano	Vallejo	136 Hogan St	5/14/2004
California	Solano	Suisun City	515 Crested Dr	3/9/2005
California	Solano	Vacaville	7234 Shelton Ln	9/29/2005
California	Solano	Dixon	9155 Olmo Rd	3/3/2006
California	Solano	Vallejo	318 Taper Avenue	1/31/2008
California	Solano	Vacaville	148 Lomita Avenue	3/5/2008
California	Solano	Vallejo	264 Flyingcloud Court	4/30/2010
California	Stanislaus	Ceres	4837 Faith Home Rd 119	1/1/2004
California	Stanislaus	Oakdale	143 N 6th St	1/5/2004
California	Stanislaus	Modesto	3356 Maze W Blvd	1/17/2004
California	Stanislaus	Hickman	948 Hickman Rd	1/20/2004
California	Stanislaus	Modesto	1520 Prospect Ln	1/24/2004
California	Stanislaus	Stanislaus	13660 Carpenter Rd	2/7/2004
California	Stanislaus	Waterford	575 E St	3/5/2004
California	Stanislaus	Turlock	6407 Mitchell Rd	4/12/2004
California	Stanislaus	Turlock	1625 Larkspur St	6/29/2004
California	Stanislaus	Ceres	4022 Esmail Keyes	7/2/2004
California	Stanislaus	Modesto	1312 Mchenry 111	7/13/2004
California	Stanislaus	Modesto	2009 Monticello Ave	7/13/2004
California	Stanislaus	Modesto	1516 Bollinger Ct	9/1/2004
California	Stanislaus	Modesto	1240 N 9th St 10	9/5/2004
California	Stanislaus	Denair	5319 Berkeley Ave	9/19/2004
California	Stanislaus	Modesto	8100 Yosemite Blvd	10/3/2004
California	Stanislaus	Oakdale	13537 Orange Blossom Rd	10/22/2004
California	Stanislaus	Oakdale	410 Arboles Way	10/26/2004
California	Stanislaus	Turlock	265 Ironwood	10/30/2004
California	Stanislaus	Turlock	357 E Olive Ave	11/4/2004
California	Stanislaus	Oakdale	755 River Ave	11/29/2004
California	Stanislaus	Oakdale	445 N Fifth	12/6/2004
California	Stanislaus	Modesto	3708 Almeria Dr	12/11/2004
California	Stanislaus	Ceres	2033 Hackett Rd	1/18/2005

California	Stanislaus	Denair	4540 Arnold Rd	2/2/2005
California	Stanislaus	Modesto	400 Algen Ave	2/2/2005
California	Stanislaus	Modesto	1022 Calder Ct	3/26/2005
California	Stanislaus	Grayson	1705 Hito Dr	4/7/2005
California	Stanislaus	Modesto	205 Glacier Ave	1/18/2006
California	Stanislaus	Riverbank	3939 Minniear Ave	1/31/2006
California	Stanislaus	Modesto	3500 Plain View Road	3/7/2006
California	Stanislaus	Ceres	527 Mitchell Rd	3/22/2006
California	Stanislaus	Ceres	3707 Monte Vista E Ave	3/24/2006
California	Stanislaus	Modesto	1411 Scenic Drive	4/24/2006
California	Stanislaus	Modesto	110 Wisenor	5/18/2006
California	Stanislaus	Modesto	2008 Stracker Way	6/8/2006
California	Stanislaus	Modesto	620 Paradise Road	9/13/2006
California	Stanislaus	Modesto	306 Locust Street	9/14/2006
California	Stanislaus	Ceres	1743 Central	10/20/2006
California	Stanislaus	Modesto	665 7th Street	12/4/2006
California	Stanislaus	Modesto	1331 Paradise Road	6/3/2007
California	Stanislaus	Turlock	201 G Street	6/26/2007
California	Stanislaus	Turlock	1105 Berea	9/15/2007
California	Stanislaus	Turlock	1090 Denair Avenue	1/6/2008
California	Stanislaus	Newman	531 Lady Slipper	1/15/2008
California	Stanislaus	Turlock	1125 South Tegner Road A	2/16/2008
California	Stanislaus	Turlock	3800 Crowell Road	4/18/2008
California	Stanislaus	Modesto	1016 East Marlow	6/19/2008
California	Stanislaus	Hickman	861 Meier Road	6/19/2008
California	Stanislaus	Modesto	1016 Marlow	6/19/2008
California	Stanislaus	Turlock	590 Minaret Avenue	8/5/2008
California	Stanislaus	Ceres	112 Taylor Road	8/25/2008
California	Stanislaus	Ceres	1948 Evans Road	11/16/2008
California	Stanislaus	Ceres	1528 Evans Road	11/18/2008
California	Stanislaus	Turlock	677 North Soderquist Road	12/15/2008
California	Stanislaus	Denair	18000 Keyes Road	4/14/2009
California	Stanislaus	Turlock	4519 Moffett Road	4/22/2009
California	Stanislaus	Patterson	1830 Orange Avenue	5/3/2009
California	Stanislaus	Ceres	3107 East Taylor Road	5/19/2009
California	Stanislaus	Turlock	6107 Mountain View Road	5/19/2009
California	Stanislaus	Ceres	3107 Taylor Road	5/19/2009
California	Stanislaus	Modesto	1898 Skylane Way	5/21/2009
California	Stanislaus	Oakdale	20601 Warnerville Road	5/28/2009
California	Stanislaus	Turlock	460 Moffet Road	5/29/2009
California	Stanislaus	Riverbank	2924 Stanislaus Street	6/18/2009
California	Stanislaus	Oakdale	10742 Pioneer Avenue	6/30/2009
California	Stanislaus	Ceres	2329 6th Street	2/5/2010
California	Stanislaus	Turlock	1180 West Linwood Avenue	2/9/2010
California	Stanislaus	Riverbank	3238 Pocket Avenue	5/22/2010
California	Stanislaus	Newman	1200 Main Street	7/26/2010
California	Stanislaus	Modesto	1600 French	8/11/2011

California	Stanislaus	Hughson	1828 White Birtch Drive	8/28/2011
California	Stanislaus	Modesto	1749 Poland	2/9/2012
California	Sutter	Yuba City	2898 Mckenly Rd	1/11/2004
California	Sutter	Yuba City	1400 Lytle Rd	2/17/2004
California	Sutter	Yuba City	1718 Elmer Rd	3/10/2004
California	Sutter	Yuba City	1292 Harter Rd	5/11/2004
California	Sutter	Sutter	2235 Madrone St	5/17/2004
California	Sutter	Yuba City	1619 Franklin Rd K	6/7/2004
California	Sutter	Yuba City	1081 Northridge Dr	9/1/2004
California	Sutter	Yuba City	400 Walton N Ave 3	9/2/2004
California	Sutter	Yuba City	761 Chestnut St	10/18/2004
California	Sutter	Yuba City	413 Pine St	10/30/2004
California	Sutter	Yuba City	1368 Hutchinson A	11/5/2004
California	Sutter	Live Oak	2691 Stafford Dr	11/10/2004
California	Sutter	Yuba City	24 Central Ave	12/11/2004
California	Sutter	Yuba City	132 S Walton Ave A	12/22/2004
California	Sutter	Yuba City	1587 Gray Ave	2/15/2005
California	Sutter	Live Oak	9755 O St	4/7/2005
California	Sutter	Yuba City	1341 Dustin Dr 39	9/1/2005
California	Sutter	Yuba City	4098 Marlette Rd	1/23/2006
California	Sutter	Yuba City	1115 Marcia Avenue	2/18/2006
California	Sutter	Yuba City	1250 Kenny Drive	5/19/2006
California	Sutter	Yuba City	617 Forbes Avenue	1/2/2007
California	Tehama	Corning	6330 Piedmont Rd	9/27/2004
California	Tehama	Corning	323 Rio Del Rey Court	7/31/2006
California	Tehama	Red Bluff	19932 Sawtooth Drive	8/1/2006
California	Tehama	Los Molinos	24881 68th	4/28/2010
California	Trinity	Trinity Center	360 Maude Avenue	3/11/2007
California	Tulare	Woodville	16477 Hudson Ave	1/29/2004
California	Tulare	Porterville	27003 Avenue 120	2/7/2004
California	Tulare	Lindsay	1445 E Honolulu	3/24/2004
California	Tulare	Dinuba	39780 Road 56	3/31/2004
California	Tulare	Tulare	26442 99 Hwy 210	5/26/2004
California	Tulare	Porterville	670 E Poplar	1/7/2006
California	Tulare	Porterville	1611 E Success Drive	1/7/2006
California	Tulare	Cutler	39500 Road 136	4/28/2006
California	Tulare	Tipton	14144 Road 152	8/9/2006
California	Tulare	Dinuba	38929 Road 84	8/17/2006
California	Ventura	N/a	5892 Santa Clara Rd	2/22/2006
California	Ventura	Ventura	1300 Saratoga Street	5/4/2006
California	Ventura	Fillmore	2989 West W Telegraph Road H	6/14/2006
California	Ventura	Oxnard	765 Kohala Street	11/9/2006
California	Ventura	Thousand Oaks	982 East Janas Road	3/20/2007
California	Yolo	West Sacrament	1155 Linden Rd	1/13/2004
California	Yolo	Woodland	1730 Donner Way	3/10/2004
California	Yolo	West Sacrament	1900 Evergreen Avenue	3/30/2007
California	Yuba	Marysville	1118 I St	4/6/2004

California	Yuba	Marysville	1205 E 22nd St	4/12/2004
California	Yuba	Marysville	222 H St	4/14/2004
California	Yuba	Marysville	1804 Hile Ave C	5/12/2004
California	Yuba	Marysville	1505 Ramirez Rd	5/20/2004
California	Yuba	Arboga	13814 Charlies Ln	5/27/2004
California	Yuba	Marysville	5956 Park Ave O	7/18/2004
California	Yuba	Marysville	5818 Park Ave	8/3/2004
California	Yuba	Marysville	5931 Redburn Ave	8/8/2004
California	Yuba	Marysville	1735 N Beale Rd	9/10/2004
California	Yuba	Olivehurst	3735 Arboga Rd	9/27/2004
California	Yuba	Olivehurst	4456 College	9/28/2004
California	Yuba	Marysville	2209 Boulton Way	10/18/2004
California	Yuba	Marysville	976 Kay St	10/25/2004
California	Yuba	Olivehurst	1941 14th St	11/3/2004
California	Yuba	Olivehurst	4461 College Way	11/17/2004
California	Yuba	Marysville	5395 Feather River Blvd	12/21/2004
California	Yuba	Olivehurst	1696 10th Ave	1/27/2005
California	Yuba	Marysville	5528 Alicia Ave	2/22/2005
California	Yuba	Marysville	5696 Arboga Rd	3/9/2005
California	Yuba	Marysville	1100 E 17th St 36	5/18/2005
California	Yuba	Marysville	885 Grand Ave	5/24/2005
California	Yuba	Marysville	209 E St	12/13/2005
California	Yuba	Marysville	1097 Vine Ave	1/12/2006
California	Yuba	Olivehurst	1440 Broadway Rd	1/17/2006
California	Yuba	Loma Rica	5124 Wolf Trail	1/25/2006
California	Yuba	Olivehurst	3948 Shimer Rd	1/31/2006
California	Yuba	Olivehurst	4605 Summers Ln	1/31/2006
California	Yuba	Marysville	647 Ramirez Rd B	2/16/2006
California	Yuba	Marysville	714 Boyer Road	3/30/2006
California	Yuba	Marysville	5514 Feather River Boulevard	7/13/2006
California	Yuba	Marysville	8369 Hwy 70	10/3/2006
California	Yuba	Marysville	7340 Doc Adams Road	10/9/2006
California	Yuba	Marysville	1164 Redwood Avenue	6/11/2007
California	Yuba	Marysville	4499 East Erle Road	7/7/2007

APPENDIX C

PHOTOGRAPHS

PHOTOGRAPHS
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California



1. View west from southeast portion of Site.



2. View north from southeast portion of Site.

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PHOTOGRAPHS
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California



3. View north from southeast portion of Site.



4. View northwest from southeast portion of Site.

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PHOTOGRAPHS
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California



5. View northwest from southeast portion of Site.



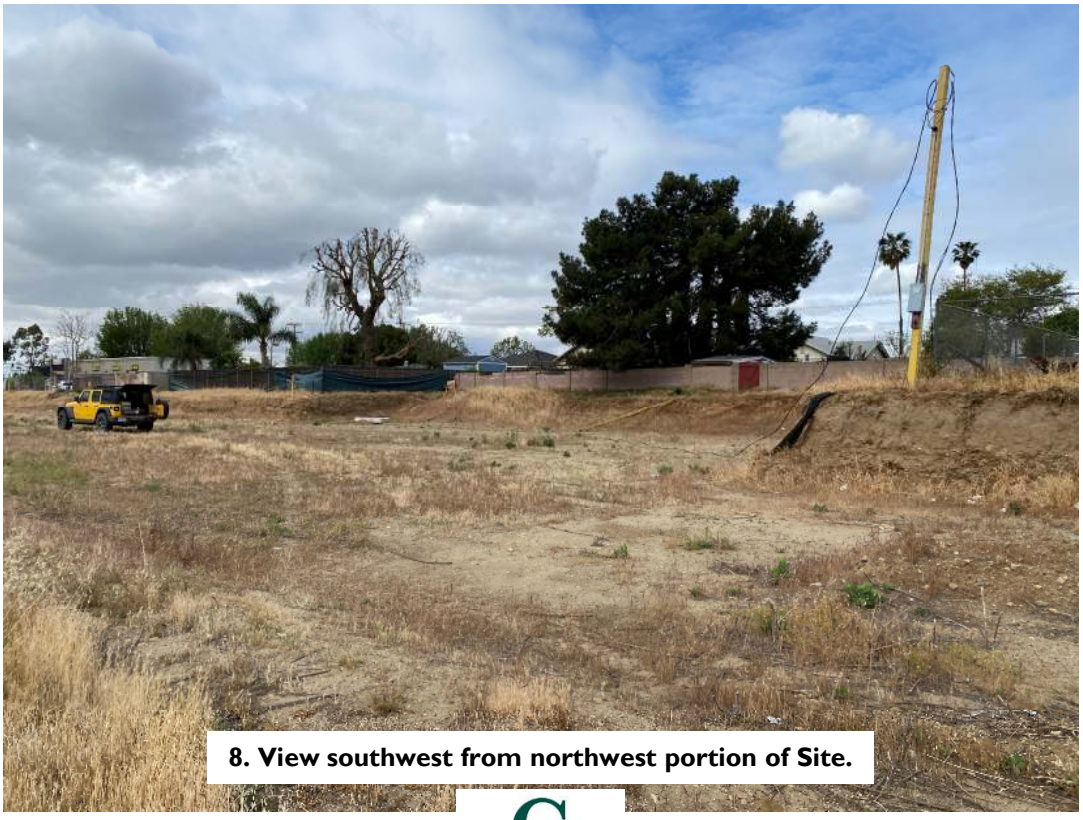
6. View southwest from northeast portion of Site.

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PHOTOGRAPHS
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California



7. View east from northwest portion of Site.



8. View southwest from northwest portion of Site.

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PHOTOGRAPHS
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California



9. View south from northwest portion of Site.



10. View southeast from northwest portion of Site.

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APPENDIX D

ENVIRONMENTAL DATABASE REPORT

2749-CR
Foothill Blvd & N Acacia Ave
Rialto, CA 92376

Inquiry Number: 6463208.2s
April 23, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

FOOTHILL BLVD & N ACACIA AVE
RIALTO, CA 92376

COORDINATES

Latitude (North):	34.1078750 - 34° 6' 28.35''
Longitude (West):	117.3599910 - 117° 21' 35.96''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	466796.9
UTM Y (Meters):	3773980.8
Elevation:	1244 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012
Southwest Map:	5619058 FONTANA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
FOOTHILL BLVD & N ACACIA AVE
RIALTO, CA 92376

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	ACACIA PLAZA CLEANER	587 E FOOTHILL BLVD	RCRA-SQG, CERS HAZ WASTE, FINDS, ECHO,...	Lower	1 ft.
A2	ACACIA CLEANERS	587 E FOOTHILL BLVD	EDR Hist Cleaner	Lower	1 ft.
A3	A & A CLEANERS INC D	587 E FOOTHILL BLVD	HAZNET, HWTS	Lower	1 ft.
A4	BEST CLEANERS	587 E FOOTHILL BLVD	DRYCLEANERS	Lower	1 ft.
A5	A & A CLEANERS INC D	587 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	1 ft.
A6	PM 6899 PARCEL 2 APN	534 EAST FOOTHILL BO	FINDS	Lower	1 ft.
A7	A & A CLEANERS INC D	587 E FOOTHILL BLVD	FINDS, ECHO	Lower	1 ft.
A8	PM 6899 PARCEL 2 APN	534 EAST FOOTHILL BO	NPDES, CIWQS, CERS	Lower	1 ft.
A9	PM 6899 PARCEL 2 APN	534 EAST FOOTHILL BO	ECHO	Lower	1 ft.
B10	CAMINO WEST COAST SE	510 E FOOTHILL BLVD	HAZNET, San Bern. Co. Permit, HWTS	Lower	40, 0.008, SW
B11	CALIFORNIA TIRES AND	510 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	40, 0.008, SW
B12	TIRE GUYS GOODYEAR	510 E FOOTHILL BLVD	San Bern. Co. Permit	Lower	40, 0.008, SW
A13	ACME AUTO SALES	612 E FOOTHILL BLVD	San Bern. Co. Permit, HWTS	Lower	97, 0.018, SE
A14	A1 TIRES & WHEELS	629 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	102, 0.019, South
C15	WEST COAST AUTO CENT	631 E FOOTHILL BLVD	EDR Hist Auto	Lower	200, 0.038, SE
C16	RAVEN'S AUTO BODY PA	631 E FOOTHILL BLVD	RCRA-SQG, FINDS, ECHO	Lower	200, 0.038, SE
C17	IMPERIAL AUTO BODY &	631 E FOOTHILL BLVD	HAZNET, San Bern. Co. Permit, HWTS	Lower	200, 0.038, SE
C18	AUTO FOURTEEN	631 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	200, 0.038, SE
C19	FOOTHILL AUTO BODY	631 E FOOTHILL BLVD	San Bern. Co. Permit, HWTS	Lower	200, 0.038, SE
C20	ANGELES MACHINE SHOP	644 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	211, 0.040, SE
C21	MENDOZA AUTOMOTIVE R	644 E FOOTHILL BLVD	RCRA-SQG, FINDS, ECHO, San Bern. Co. Permit, HWTS	Lower	211, 0.040, SE
D22	SHURTE JOHN R	503 E FOOTHILL BLVD	EDR Hist Auto	Lower	215, 0.041, SSW
D23	JOHNS MOBL	503 E FOOTHILL	HIST UST	Lower	215, 0.041, SSW
D24	JOHN'S TEXACO	503 E FOOTHILL	SWEEPS UST, CA FID UST	Lower	215, 0.041, SSW
B25	PIERCE PAINT & AUTO	501 E FOOTHILL	EDR Hist Auto	Higher	227, 0.043, SW
B26	PIERCES AUTO BODY	501 E FOOTHILL	RCRA-SQG, FINDS, ECHO	Higher	227, 0.043, SW
C27	RIALTO CAR WASH	660 RIALTO	LUST, HIST CORTESE	Lower	273, 0.052, ESE
E28	RIALTO CAR WASH	660 E FOOTHILL BLVD	LUST, HIST UST	Lower	289, 0.055, ESE
E29	RIALTO CAR WASH	660 E FOOTHILL BLVD	SWEEPS UST, CA FID UST, Cortese, CERS	Lower	289, 0.055, ESE
E30	SHELL STATION	684 EAST FOOTHILL BO	Notify 65	Lower	356, 0.067, ESE
E31	MARY BESS ATKINSON	684 E FOOTHILL	HIST UST	Lower	356, 0.067, ESE
E32	JAMES BYRON V	684 E FOOTHILL BLVD	EDR Hist Auto	Lower	356, 0.067, ESE
E33	SHELL SVC STN	684 E FOOTHILL	RCRA-SQG, FINDS, ECHO	Lower	356, 0.067, ESE
E34	SURU'S SHELL	684 E FOOTHILL BLVD	LUST, Cortese, CERS	Lower	356, 0.067, ESE
E35	SHELL SERVICE STATIO	684 FOOTHILL	HIST CORTESE	Lower	372, 0.070, ESE
E36	SURU'S SHELL	684 FOOTHILL BLVD	LUST, SWEEPS UST, CA FID UST	Lower	418, 0.079, ESE
F37	STATER BROS MARKETS	571 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	464, 0.088, South
F38	STATER BROS. MARKETS	571 E FOOTHILL BLVD	CERS HAZ WASTE, HAZNET, San Bern. Co. Permit,...	Lower	464, 0.088, South
G39	PEP BOYS #790	505 E FOOTHILL BLVD	San Bern. Co. Permit	Lower	503, 0.095, SSW

MAPPED SITES SUMMARY

Target Property Address:
FOOTHILL BLVD & N ACACIA AVE
RIALTO, CA 92376

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	PEP BOYS STORE#0790	505 E FOOTHILL BLVD	RCRA NonGen / NLR	Lower	503, 0.095, SSW
G41	PEP BOYS STORE#0790	505 E FOOTHILL BLVD	CERS HAZ WASTE, HAZNET, CERS, HWTS	Lower	503, 0.095, SSW
E42	SHURTE JOHN R	681 E FOOTHILL	EDR Hist Auto	Lower	517, 0.098, SE
43	AUTOZONE #5626	702 E FOOTHILL BLVD	CERS HAZ WASTE, San Bern. Co. Permit, CERS	Lower	627, 0.119, ESE
44	BERBER RECYCLING	728 E FOOTHILL BLVD	SWRCY	Lower	632, 0.120, East
45	STEVE CAMERON	630 N ENCINA AVE	RCRA NonGen / NLR	Higher	861, 0.163, NNW
H46	EAGLE SMOG CHECK	364 E FOOTHILL BLVD	San Bern. Co. Permit	Higher	1112, 0.211, WSW
47	EDEL ZAYAS	595 N CHESTNUT AVE	RCRA NonGen / NLR	Higher	1189, 0.225, ENE
H48	DON'S POOL AND SPA S	407 E FOOTHILL BLVD	San Bern. Co. Permit	Higher	1284, 0.243, WSW
49	MARLIYN HUDSON	418 E MCKINLEY ST	RCRA NonGen / NLR	Lower	1299, 0.246, SSW
H50	NED'S OIL SALES INC	312 E FOOTHILL BLVD	HIST UST, San Bern. Co. Permit	Higher	1303, 0.247, West
I51	THRIFTY OIL #77 / AR	280 E FOOTHILL BLVD	LUST, Cortese, CERS	Higher	1635, 0.310, West
I52	THRIFTY OIL #77 / AR	280 FOOTHILL BLVD	LUST	Higher	1658, 0.314, WSW
53	RIALTO COMMUNITY SCH	RIALTO AVENUE/ARROWH	ENVIROSTOR, SCH	Lower	2449, 0.464, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROLS Institutional Controls Sites List

Federal ERNS list

ERNS Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST Leaking Underground Storage Tanks on Indian Land
CPS-SLIC Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
UST Active UST Facilities
AST Aboveground Petroleum Storage Tank Facilities
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP Voluntary Cleanup Program Properties
INDIAN VCP Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT Waste Management Unit Database
HAULERS Registered Waste Tire Haulers Listing
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
ODI Open Dump Inventory
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register
HIST Cal-Sites Historical Calsites Database

SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register
PFAS ..... PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

CERS TANKS ..... California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS ..... Environmental Liens Listing
LIENS 2 ..... CERCLA Lien Information
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ..... Formerly Used Defense Sites
DOD ..... Department of Defense Sites
SCRD DRYCLEANERS ..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ..... Financial Assurance Information
EPA WATCH LIST ..... EPA WATCH LIST
2020 COR ACTION ..... 2020 Corrective Action Program List
TSCA ..... Toxic Substances Control Act
TRIS ..... Toxic Chemical Release Inventory System
SSTS ..... Section 7 Tracking Systems
ROD ..... Records Of Decision
RMP ..... Risk Management Plans
RAATS ..... RCRA Administrative Action Tracking System
PRP ..... Potentially Responsible Parties
PADS ..... PCB Activity Database System
ICIS ..... Integrated Compliance Information System
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ..... Material Licensing Tracking System
COAL ASH DOE ..... Steam-Electric Plant Operation Data
COAL ASH EPA ..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ..... PCB Transformer Registration Database
RADINFO ..... Radiation Information Database
HIST FTTS ..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ..... Incident and Accident Data
CONSENT ..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV ..... Indian Reservations
FUSRAP ..... Formerly Utilized Sites Remedial Action Program
UMTRA ..... Uranium Mill Tailings Sites
LEAD SMELTERS ..... Lead Smelter Sites

US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
CUPA Listings ---- CUPA Resources List
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
ICE ---- ICE
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/14/2020 has revealed that there are 5 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PIERCES AUTO BODY EPA ID:: CAD982031650	***501 E FOOTHILL***	***SW 0 - 1/8 (0.043 mi.)***	***B26***	***114***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER EPA ID:: CA0000085977	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
RAVEN'S AUTO BODY PA EPA ID:: CAD982320426	***631 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.038 mi.)***	***C16***	***94***
MENDOZA AUTOMOTIVE R EPA ID:: CAD983581588	***644 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.040 mi.)***	***C21***	***106***
SHELL SVC STN EPA ID:: CAR000081349	***684 E FOOTHILL***	***ESE 0 - 1/8 (0.067 mi.)***	***E33***	***124***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIALTO COMMUNITY SCH Facility Id: 36010042 Status: No Further Action	***RIALTO AVENUE/ARROWH***	***SSE 1/4 - 1/2 (0.464 mi.)***	***53***	***218***

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THRIFTY OIL #77 / AR	***280 E FOOTHILL BLVD***	***W 1/4 - 1/2 (0.310 mi.)***	***I51***	***214***
Database: LUST, Date of Government Version: 03/08/2021 Status: Completed - Case Closed Global Id: T0607100501				
THRIFTY OIL #77 / AR	280 FOOTHILL BLVD	WSW 1/4 - 1/2 (0.314 mi.)	I52	217
Database: LUST REG 8, Date of Government Version: 02/14/2005 Facility Status: Preliminary site assessment workplan submitted Global ID: T0607100501				

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIALTO CAR WASH	***660 RIALTO***	***ESE 0 - 1/8 (0.052 mi.)***	***C27***	***117***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Facility Status: Case Closed Global ID: T0607100607				
RIALTO CAR WASH	***660 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.055 mi.)***	***E28***	***118***
Database: LUST, Date of Government Version: 03/08/2021 Status: Completed - Case Closed Global Id: T0607100607				
SURU'S SHELL	***684 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.067 mi.)***	***E34***	***127***
Database: LUST, Date of Government Version: 03/08/2021 Status: Completed - Case Closed Global Id: T0607100150				
SURU'S SHELL	***684 FOOTHILL BLVD***	***ESE 0 - 1/8 (0.079 mi.)***	***E36***	***130***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Facility Status: Case Closed Global ID: T0607100150				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 03/09/2021 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BERBER RECYCLING	728 E FOOTHILL BLVD	E 0 - 1/8 (0.120 mi.)	44	204

EXECUTIVE SUMMARY

Cert Id: RC294935.001

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/20/2021 has revealed that there are 4 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
STATER BROS. MARKETS	***571 E FOOTHILL BLVD***	***S 0 - 1/8 (0.088 mi.)***	***F38***	***135***
PEP BOYS STORE#0790	***505 E FOOTHILL BLVD***	***SSW 0 - 1/8 (0.095 mi.)***	***G41***	***143***
AUTOZONE #5626	***702 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.119 mi.)***	***43***	***199***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JOHN'S TEXACO Status: A Tank Status: A Comp Number: 65286	***503 E FOOTHILL***	***SSW 0 - 1/8 (0.041 mi.)***	***D24***	***112***
RIALTO CAR WASH Status: A Tank Status: A Comp Number: 49479	***660 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.055 mi.)***	***E29***	***120***
SURU'S SHELL Status: A Tank Status: A Comp Number: 18041	***684 FOOTHILL BLVD***	***ESE 0 - 1/8 (0.079 mi.)***	***E36***	***130***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NED'S OIL SALES INC	***312 E FOOTHILL BLVD***	***W 1/8 - 1/4 (0.247 mi.)***	***H50***	***213***

Facility Id: 00000035110

Lower Elevation	Address	Direction / Distance	Map ID	Page
JOHNS MOBL Facility Id: 00000065286	503 E FOOTHILL	SSW 0 - 1/8 (0.041 mi.)	D23	110
RIALTO CAR WASH Facility Id: 00000049479	***660 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.055 mi.)***	***E28***	***118***
MARY BESS ATKINSON Facility Id: 00000018041	684 E FOOTHILL	ESE 0 - 1/8 (0.067 mi.)	E31	123

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 3 CA FID UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JOHN'S TEXACO Facility Id: 36009242 Status: A	***503 E FOOTHILL***	***SSW 0 - 1/8 (0.041 mi.)***	***D24***	***112***
RIALTO CAR WASH Facility Id: 36000649 Status: A	***660 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.055 mi.)***	***E29***	***120***
SURU'S SHELL Facility Id: 36001289 Status: A	***684 FOOTHILL BLVD***	***ESE 0 - 1/8 (0.079 mi.)***	***E36***	***130***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/14/2020 has revealed that there are 10 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STEVE CAMERON EPA ID:: CAC002996881	630 N ENCINA AVE	NNW 1/8 - 1/4 (0.163 mi.)	45	205
EDEL ZAYAS EPA ID:: CAC003014766	595 N CHESTNUT AVE	ENE 1/8 - 1/4 (0.225 mi.)	47	208

Lower Elevation	Address	Direction / Distance	Map ID	Page
A & A CLEANERS INC D	587 E FOOTHILL BLVD	0 - 1/8 (0.000 mi.)	A5	59

EPA ID:: CAL000284978				
CALIFORNIA TIRES AND EPA ID:: CAL000431970	510 E FOOTHILL BLVD	SW 0 - 1/8 (0.008 mi.)	B11	86
A1 TIRES & WHEELS EPA ID:: CAL000361165	629 E FOOTHILL BLVD	S 0 - 1/8 (0.019 mi.)	A14	91
AUTO FOURTEEN EPA ID:: CAL000406948	631 E FOOTHILL BLVD	SE 0 - 1/8 (0.038 mi.)	C18	99
ANGELES MACHINE SHOP EPA ID:: CAL000445222	644 E FOOTHILL BLVD	SE 0 - 1/8 (0.040 mi.)	C20	104
STATER BROS MARKETS EPA ID:: CAL000340278	571 E FOOTHILL BLVD	S 0 - 1/8 (0.088 mi.)	F37	133
PEP BOYS STORE#0790 EPA ID:: CAL913263326	505 E FOOTHILL BLVD	SSW 0 - 1/8 (0.095 mi.)	G40	141
MARLIYN HUDSON EPA ID:: CAC003058706	418 E MCKINLEY ST	SSW 1/8 - 1/4 (0.246 mi.)	49	211

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 02/03/2021 has revealed that there are 3 FINDS sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER Registry ID:: 110002612940	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
PM 6899 PARCEL 2 APN	534 EAST FOOTHILL BO	0 - 1/8 (0.000 mi.)	A6	62
A & A CLEANERS INC D Registry ID:: 110070455514	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A7***	***62***

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 01/02/2021 has revealed that there are 3 ECHO sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER Registry ID: 110002612940	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
A & A CLEANERS INC D Registry ID: 110070455514	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A7***	***62***
PM 6899 PARCEL 2 APN	534 EAST FOOTHILL BO	0 - 1/8 (0.000 mi.)	A9	73

Registry ID: 110070743189

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 12/17/2020 has revealed that there are 3 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THRIFTY OIL #77 / AR	***280 E FOOTHILL BLVD***	***W 1/4 - 1/2 (0.310 mi.)***	***I51***	***214***
Cleanup Status: COMPLETED - CASE CLOSED				

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIALTO CAR WASH	***660 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.055 mi.)***	***E29***	***120***
Cleanup Status: COMPLETED - CASE CLOSED				
SURU'S SHELL	***684 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.067 mi.)***	***E34***	***127***
Cleanup Status: COMPLETED - CASE CLOSED				

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, has revealed that there are 2 DRYCLEANERS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
Database: DRYCLEAN SOUTH COAST, Date of Government Version: 11/17/2020				
Database: DRYCLEANERS, Date of Government Version: 11/23/2020				
EPA Id: CAL000284978				
BEST CLEANERS	587 E FOOTHILL BLVD	0 - 1/8 (0.000 mi.)	A4	59
Database: DRYCLEAN SOUTH COAST, Date of Government Version: 11/17/2020				

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2019 has revealed that there are 2 HAZNET sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
GEPAID: CA0000085977				
A & A CLEANERS INC D	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A3***	***52***

GEPAID: CAL000284978

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIALTO CAR WASH Reg Id: 083603579T	***660 RIALTO***	***ESE 0 - 1/8 (0.052 mi.)***	***C27***	***117***
SHELL SERVICE STATIO Reg Id: 083601286T	684 FOOTHILL	ESE 0 - 1/8 (0.070 mi.)	E35	130

NPDES: A listing of NPDES permits, including stormwater.

A review of the NPDES list, as provided by EDR, and dated 11/09/2020 has revealed that there is 1 NPDES site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PM 6899 PARCEL 2 APN Facility Status: Terminated	***534 EAST FOOTHILL BO***	***0 - 1/8 (0.000 mi.)***	***A8***	***63***

San Bern. Co. Permit: San Bernardino County Fire Department Hazardous Materials Division.

A review of the San Bern. Co. Permit list, as provided by EDR, and dated 11/16/2020 has revealed that there are 13 San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EAGLE SMOG CHECK Facility Status: INACTIVE Facility Id: FA0007322	364 E FOOTHILL BLVD	WSW 1/8 - 1/4 (0.211 mi.)	H46	207
DON'S POOL AND SPA S Facility Status: INACTIVE Facility Id: FA0015329	407 E FOOTHILL BLVD	WSW 1/8 - 1/4 (0.243 mi.)	H48	210
NED'S OIL SALES INC Facility Status: INACTIVE Facility Id: FA0004953	***312 E FOOTHILL BLVD***	***W 1/8 - 1/4 (0.247 mi.)***	***H50***	***213***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER Facility Status: ACTIVE Facility Id: FA0000215	***587 E FOOTHILL BLVD***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
CAMINO WEST COAST SE Facility Status: INACTIVE	***510 E FOOTHILL BLVD***	***SW 0 - 1/8 (0.008 mi.)***	***B10***	***73***

Facility Id: FA0015466				
TIRE GUYS GOODYEAR Facility Status: INACTIVE Facility Id: FA0003530	510 E FOOTHILL BLVD	SW 0 - 1/8 (0.008 mi.)	B12	89
ACME AUTO SALES Facility Status: INACTIVE Facility Id: FA0000247	***612 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.018 mi.)***	***A13***	***89***
IMPERIAL AUTO BODY & Facility Status: INACTIVE Facility Id: FA0015671	***631 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.038 mi.)***	***C17***	***97***
FOOTHILL AUTO BODY Facility Status: INACTIVE Facility Id: FA0013332 Facility Id: FA0011614 Facility Id: FA0010205 Facility Id: FA0007252	***631 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.038 mi.)***	***C19***	***102***
MENDOZA AUTOMOTIVE R Facility Status: INACTIVE Facility Id: FA0004658	***644 E FOOTHILL BLVD***	***SE 0 - 1/8 (0.040 mi.)***	***C21***	***106***
STATER BROS. MARKETS Facility Status: ACTIVE Facility Status: FEE EXEMPT Facility Id: FA0011494	***571 E FOOTHILL BLVD***	***S 0 - 1/8 (0.088 mi.)***	***F38***	***135***
PEP BOYS #790 Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0005275	505 E FOOTHILL BLVD	SSW 0 - 1/8 (0.095 mi.)	G39	140
AUTOZONE #5626 Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0000003	***702 E FOOTHILL BLVD***	***ESE 0 - 1/8 (0.119 mi.)***	***43***	***199***

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 12/07/2020 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL STATION	684 EAST FOOTHILL BO	ESE 0 - 1/8 (0.067 mi.)	E30	122

CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

A review of the CIWQS list, as provided by EDR, and dated 11/30/2020 has revealed that there is 1 CIWQS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PM 6899 PARCEL 2 APN	*534 EAST FOOTHILL BO*	*0 - 1/8 (0.000 mi.)*	*A8*	*63*

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 01/20/2021 has revealed that there are 2 CERS sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER	*587 E FOOTHILL BLVD*	*0 - 1/8 (0.000 mi.)*	*A1*	*9*
PM 6899 PARCEL 2 APN	*534 EAST FOOTHILL BO*	*0 - 1/8 (0.000 mi.)*	*A8*	*63*

HWTS: DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

A review of the HWTS list, as provided by EDR, and dated 04/08/2021 has revealed that there are 2 HWTS sites within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA PLAZA CLEANER	*587 E FOOTHILL BLVD*	*0 - 1/8 (0.000 mi.)*	*A1*	*9*
A & A CLEANERS INC D	*587 E FOOTHILL BLVD*	*0 - 1/8 (0.000 mi.)*	*A3*	*52*

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 5 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PIERCE PAINT & AUTO	501 E FOOTHILL	SW 0 - 1/8 (0.043 mi.)	B25	113

Lower Elevation	Address	Direction / Distance	Map ID	Page
WEST COAST AUTO CENT	631 E FOOTHILL BLVD	SE 0 - 1/8 (0.038 mi.)	C15	93

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHURTE JOHN R	503 E FOOTHILL BLVD	SSW 0 - 1/8 (0.041 mi.)	D22	110
JAMES BYRON V	684 E FOOTHILL BLVD	ESE 0 - 1/8 (0.067 mi.)	E32	124
SHURTE JOHN R	681 E FOOTHILL	SE 0 - 1/8 (0.098 mi.)	E42	199

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

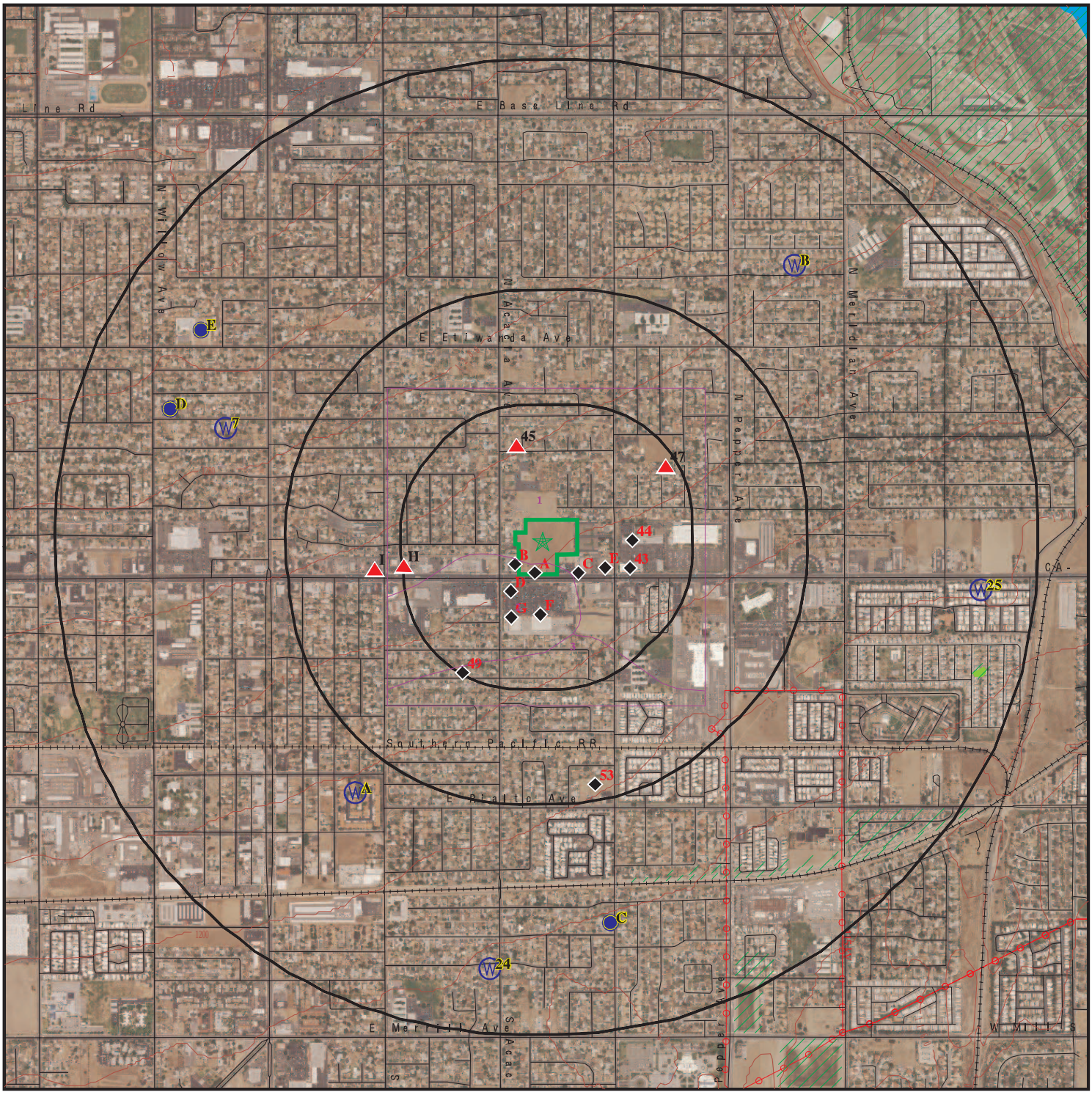
Lower Elevation	Address	Direction / Distance	Map ID	Page
ACACIA CLEANERS	587 E FOOTHILL BLVD	0 - 1/8 (0.000 mi.)	A2	52

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
TOSCO/ UNOCAL #1995	LUST, HIST CORTESE
SECCOMBE LAKE STATE REC AREA	SEMS-ARCHIVE
NORTON A F B BLDG 754	LUST

OVERVIEW MAP - 6463208.2S



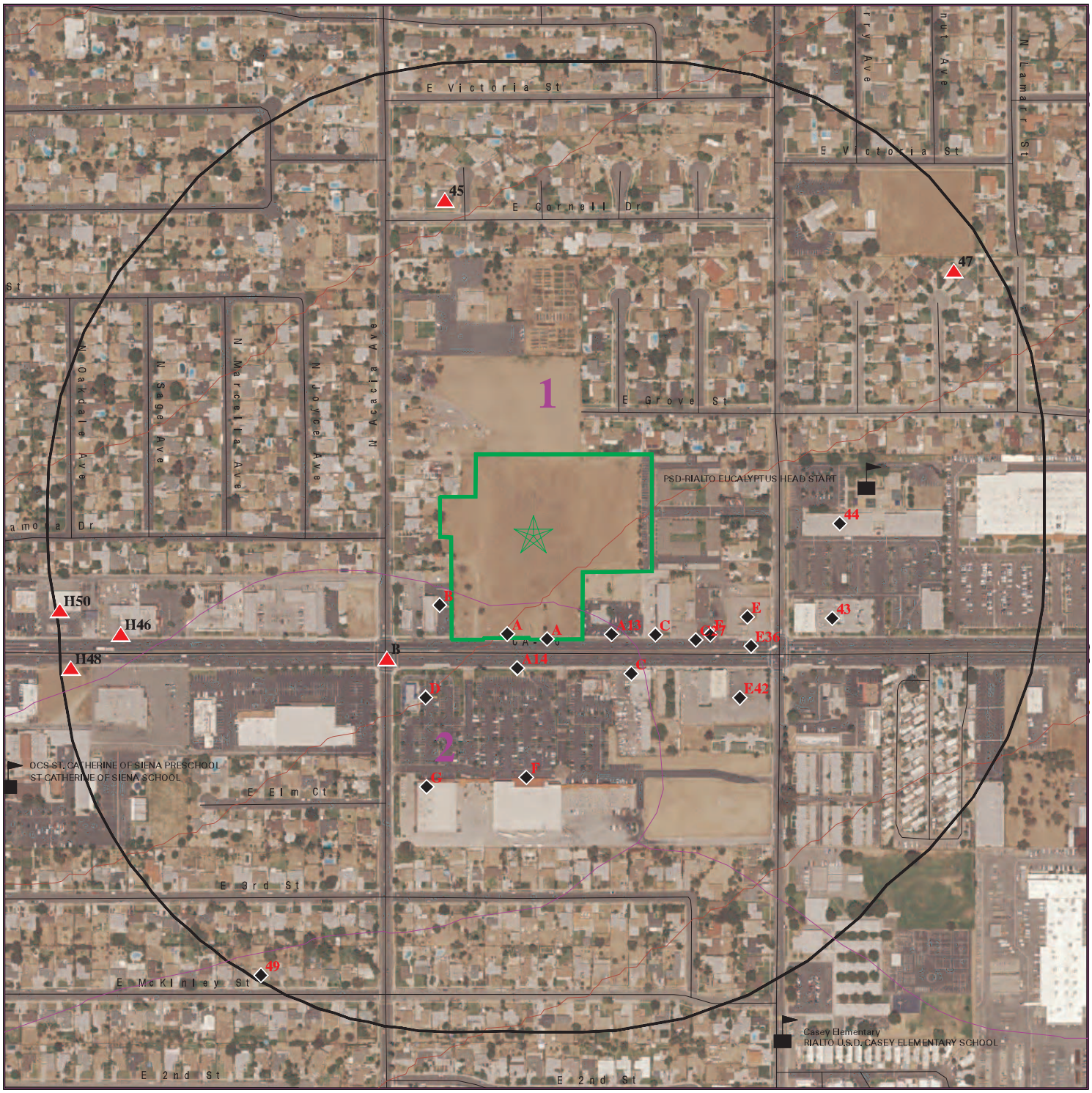
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	2749-CR	CLIENT:	Geotek
ADDRESS:	Foothill Blvd & N Acacia Ave Rialto CA 92376	CONTACT:	Gabriela Pocius
LAT/LONG:	34.107875 / 117.359991	INQUIRY #:	6463208.2s
		DATE:	April 23, 2021 1:19 pm

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DETAIL MAP - 6463208.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2749-CR	CLIENT: Geotek
ADDRESS: Foothill Blvd & N Acacia Ave Rialto CA 92376	CONTACT: Gabriela Pocius
LAT/LONG: 34.107875 / 117.359991	INQUIRY #: 6463208.2s DATE: April 23, 2021 1:22 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		5	0	NR	NR	NR	5
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	0	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		4	0	2	NR	NR	6

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		4	0	NR	NR	NR	4
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		3	0	NR	NR	NR	3
HIST UST	0.250		3	1	NR	NR	NR	4
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		3	0	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		7	3	NR	NR	NR	10
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		3	NR	NR	NR	NR	3
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		3	NR	NR	NR	NR	3
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		2	0	1	NR	NR	3
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		2	0	NR	NR	NR	2
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		2	NR	NR	NR	NR	2
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		2	0	0	NR	NR	2
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		1	NR	NR	NR	NR	1
San Bern. Co. Permit	0.250		10	3	NR	NR	NR	13
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		1	0	0	0	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		1	NR	NR	NR	NR	1
CERS	0.001		2	NR	NR	NR	NR	2
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	0.001		2	NR	NR	NR	NR	2
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		5	NR	NR	NR	NR	5
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	67	7	4	0	0	78

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **ACACIA PLAZA CLEANERS** **RCRA-SQG** **1000886158**
587 E FOOTHILL BLVD **CERS HAZ WASTE** **CA0000085977**
< 1/8 **RIALTO, CA 92376** **FINDS**
1 ft. **ECHO**
Site 1 of 11 in cluster A **DRYCLEANERS**
HAZNET
Relative: **San Bern. Co. Permit**
Lower **CERS**
HWTS
Actual:
1238 ft.

RCRA-SQG:

Date Form Received by Agency:		1993-12-21 00:00:00.0
Handler Name:	ACACIA PLAZA CLEANERS	
Handler Address:		587 E FOOTHILL BLVD
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CA0000085977
Contact Name:		PETER YANG
Contact Address:		587 E FOOTHILL BLVD
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		909-820-7050
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		E FOOTHILL BLVD
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		PETER K YANG
Owner Type:		Private
Operator Name:		Not reported
Operator Type:		Not reported
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		NN
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2000-09-15 17:31:31.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	PETER K YANG
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	587 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-820-7050
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1993-12-21 00:00:00.0
Handler Name: ACACIA PLAZA CLEANERS	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

CERS HAZ WASTE:
Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Site ID: 89370
CERS ID: 10034338
CERS Description: Hazardous Waste Generator

FINDS:
Registry ID: 110002612940

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000886158
Registry ID: 110002612940
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002612940
Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376

DRYCLEAN SOUTH COAST:
Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Facility ID: 137509

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Application Number:	418568
Permit Number:	F62753
Status:	A
Representative Name:	ATUL DOSHI
Representative Telephone:	909 8207050
Permit Status:	INACTIVE
BCAT Number:	000603
BCAT Description:	DRY CLEANING,DRY-TO-DRY NV,W/ SIC,PERC
CCAT Number:	Not reported
CCAT Description:	Not reported
UTM East:	466.8210144
UTM North:	3773.8479004
Application Date:	07/29/2003
PO Issue Date:	08/19/2003
NAICS Code:	812320
SIC Code:	7216

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Facility ID:	137509
Application Number:	468161
Permit Number:	F89962
Status:	A
Representative Name:	ATUL DOSHI
Representative Telephone:	909 8207050
Permit Status:	ACTIVE
BCAT Number:	000603
BCAT Description:	DRY CLEANING,DRY-TO-DRY NV,W/ SIC,PERC
CCAT Number:	Not reported
CCAT Description:	Not reported
UTM East:	466.8210144
UTM North:	3773.8479004
Application Date:	04/24/2007
PO Issue Date:	05/22/2007
NAICS Code:	812320
SIC Code:	7216

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Facility ID:	137509
Application Number:	612451
Permit Number:	Not reported
Status:	A
Representative Name:	ATUL DOSHI
Representative Telephone:	909 8207050
Permit Status:	Not reported
BCAT Number:	000233
BCAT Description:	DRY CLEANING EQUIP PETROLEUM SOLVENT
CCAT Number:	Not reported
CCAT Description:	Not reported
UTM East:	466.8210144
UTM North:	3773.8479004
Application Date:	05/03/2019
PO Issue Date:	12/31/9999
NAICS Code:	812320

ACACIA PLAZA CLEANERS (Continued) **1000886158**

SIC Code: 7216

Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Facility ID: 98596
Application Number: 284437
Permit Number: D82372
Status: S
Representative Name: HAE KWAN YANG
Representative Telephone: 909 8207050
Permit Status: INACTIVE
BCAT Number: 000234
BCAT Description: DRY CLEANING EQUIP PERCHLOROETHYLENE
CCAT Number: Not reported
CCAT Description: Not reported
UTM East: 466.8210144
UTM North: 3773.8479004
Application Date: 08/23/1993
PO Issue Date: 04/28/1994
NAICS Code: 812320
SIC Code: 7210

Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Facility ID: 98596
Application Number: 370895
Permit Number: F38824
Status: S
Representative Name: HAE KWAN YANG
Representative Telephone: 909 8207050
Permit Status: INACTIVE
BCAT Number: 000601
BCAT Description: DRY CLEANING, DRY-TO-DRY NON-VENT, PERC
CCAT Number: 04
CCAT Description: VAPOR RECOVERY UNIT COMPRESS & CONDENSE
UTM East: 466.8210144
UTM North: 3773.8479004
Application Date: 06/14/2000
PO Issue Date: 04/13/2001
NAICS Code: 812320
SIC Code: 7210

Name: ACACIA PLAZA CLEANERS
Address: 587 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Facility ID: 98596
Application Number: 401842
Permit Number: F52572
Status: S
Representative Name: HAE KWAN YANG
Representative Telephone: 909 8207050
Permit Status: INACTIVE
BCAT Number: 000603
BCAT Description: DRY CLEANING,DRY-TO-DRY NV,W/ SIC,PERC
CCAT Number: 04

ACACIA PLAZA CLEANERS (Continued) **1000886158**

CCAT Description:	VAPOR RECOVERY UNIT COMPRESS & CONDENSE
UTM East:	466.8210144
UTM North:	3773.8479004
Application Date:	05/24/2002
PO Issue Date:	06/04/2002
NAICS Code:	812320
SIC Code:	7210

DRYCLEANERS:

Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
EPA Id:	CAL000284978
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	07/23/2004
Facility Active:	Yes
Inactive Date:	Not reported
Facility Addr2:	Not reported
Owner Name:	A & A CLEANERS INC
Owner Address:	23593 GOLD NUGGET AVE
Owner Address 2:	Not reported
Owner Telephone:	9099794703
Contact Name:	AVTAR S. CHAHAL PRES
Contact Address:	589 E FOOTHILL BLVD
Contact Address 2:	Not reported
Contact Telephone:	9098207050
Mailing Name:	Not reported
Mailing Address 1:	587 E FOOTHILL BLVD
Mailing Address 2:	Not reported
Mailing City:	RIALTO
Mailing State:	CA
Mailing Zip:	923765223
Owner Fax:	0
Region Code:	4

HAZNET:

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923760000
Contact:	PETER YANG OWNER
Telephone:	9098207050
Mailing Name:	Not reported
Mailing Address:	587 E FOOTHILL BLVD
Year:	2004
Gepaid:	CA0000085977
TSD EPA ID:	CAD008302903
CA Waste Code:	211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	R01 - Recycler
Tons:	0.22935

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Year: 2004
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: -
Tons: Not reported

Year: 2003
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: R01 - Recycler
Tons: 0.22935

Year: 2003
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: -
Tons: Not reported

Year: 2001
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: R01 - Recycler
Tons: 0.4586

Year: 2001
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: -
Tons: 0

Year: 2001
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: H01 - Transfer Station
Tons: 0.06

Year: 2001
Gepaid: CA0000085977
TSD EPA ID: CAD008302903
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: -
Tons: 0

Year: 2000
Gepaid: CA0000085977

ACACIA PLAZA CLEANERS (Continued) **1000886158**

TSD EPA ID: CAD981397417
CA Waste Code: -
Disposal Method: R01 - Recycler
Tons: 0

Year: 2000
Gepaid: CA0000085977
TSD EPA ID: AZD009015389
CA Waste Code: 211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: R01 - Recycler
Tons: 0.1042

Click this hyperlink while viewing on your computer to access
11 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2000
Gen EPA ID: CA0000085977

Shipment Date: 20001211
Creation Date: 3/22/2001 0:00:00
Receipt Date: 20001218
Manifest ID: 20589292
Trans EPA ID: CAD983657719
Trans Name: Not reported
Trans 2 EPA ID: CAD981446156
Trans 2 Name: Not reported
TSDF EPA ID: AZD009015389
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: - Not reported
RCRA Code: Not reported
Meth Code: D80 - Disposal, Land Fill
Quantity Tons: 0
Waste Quantity: 0
Quantity Unit: Not reported
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20001211
Creation Date: 3/22/2001 0:00:00
Receipt Date: 20001218
Manifest ID: 20589292
Trans EPA ID: CAD983657719
Trans Name: Not reported
Trans 2 EPA ID: CAD981446156
Trans 2 Name: Not reported
TSDF EPA ID: AZD009015389
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.1042
Waste Quantity:	25
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000207
Creation Date:	8/9/2000 0:00:00
Receipt Date:	20000208
Manifest ID:	99690182
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.1
Waste Quantity:	24
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000207
Creation Date:	8/9/2000 0:00:00
Receipt Date:	20000208
Manifest ID:	99690182
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000110
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000111
Manifest ID:	99707282
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0959
Waste Quantity:	23
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000110
Creation Date:	8/1/2000 0:00:00
Receipt Date:	20000111
Manifest ID:	99707282
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1999

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Gen EPA ID:	CA0000085977
Shipment Date:	19991005
Creation Date:	5/1/2000 0:00:00
Receipt Date:	19991006
Manifest ID:	99558787
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19991005
Creation Date:	5/1/2000 0:00:00
Receipt Date:	19991006
Manifest ID:	99558787
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990805
Creation Date:	3/22/2000 0:00:00
Receipt Date:	19990806
Manifest ID:	99455830
Trans EPA ID:	CAD981414386

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990805
Creation Date:	3/22/2000 0:00:00
Receipt Date:	19990806
Manifest ID:	99455830
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0917
Waste Quantity:	22
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990609
Creation Date:	11/22/1999 0:00:00
Receipt Date:	19990601
Manifest ID:	99110888
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990609
Creation Date:	11/22/1999 0:00:00
Receipt Date:	19990601
Manifest ID:	99110888
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990503
Creation Date:	11/18/1999 0:00:00
Receipt Date:	19990504
Manifest ID:	99102142
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990503
Creation Date:	11/18/1999 0:00:00
Receipt Date:	19990504
Manifest ID:	99102142
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.075
Waste Quantity:	18
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990329
Creation Date:	8/16/1999 0:00:00
Receipt Date:	19990330
Manifest ID:	99182677
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.075
Waste Quantity:	18
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990329

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Creation Date:	8/16/1999 0:00:00
Receipt Date:	19990330
Manifest ID:	99182677
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1998
Gen EPA ID:	CA0000085977
Shipment Date:	19981130
Creation Date:	3/15/1999 0:00:00
Receipt Date:	19981201
Manifest ID:	98462087
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981130
Creation Date:	3/15/1999 0:00:00
Receipt Date:	19981201
Manifest ID:	98462087

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0959
Waste Quantity:	23
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980803
Creation Date:	12/7/1998 0:00:00
Receipt Date:	19980804
Manifest ID:	98078014
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980803
Creation Date:	12/7/1998 0:00:00
Receipt Date:	19980804
Manifest ID:	98078014
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417

ACACIA PLAZA CLEANERS (Continued) **1000886158**

TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0542
Waste Quantity:	13
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980601
Creation Date:	9/15/1998 0:00:00
Receipt Date:	19980602
Manifest ID:	98024542
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980601
Creation Date:	9/15/1998 0:00:00
Receipt Date:	19980602
Manifest ID:	98024542
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.1167
Waste Quantity:	28

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980202
Creation Date:	5/8/1998 0:00:00
Receipt Date:	19980203
Manifest ID:	97352711
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980202
Creation Date:	5/8/1998 0:00:00
Receipt Date:	19980203
Manifest ID:	97352711
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0333
Waste Quantity:	8
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Shipment Date:	19980105
Creation Date:	4/16/1998 0:00:00
Receipt Date:	19980106
Manifest ID:	97316628
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19980105
Creation Date:	4/16/1998 0:00:00
Receipt Date:	19980106
Manifest ID:	97316628
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0458
Waste Quantity:	11
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2003
Gen EPA ID:	CA0000085977

Shipment Date:	20030903
Creation Date:	7/29/2004 15:04:35
Receipt Date:	20030904

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Manifest ID:	22418648
Trans EPA ID:	CAR000036921
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.22935
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20030903
Creation Date:	7/29/2004 15:04:35
Receipt Date:	20030904
Manifest ID:	22418648
Trans EPA ID:	CAR000036921
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1997
Gen EPA ID:	CA0000085977

Shipment Date:	19971103
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971104
Manifest ID:	97286370
Trans EPA ID:	CAD981414386
Trans Name:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971103
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971104
Manifest ID:	97286370
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0917
Waste Quantity:	22
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970602
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970603
Manifest ID:	96715440
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride,

ACACIA PLAZA CLEANERS (Continued) **1000886158**

	perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970602
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970603
Manifest ID:	96715440
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970331
Creation Date:	7/17/1997 0:00:00
Receipt Date:	19970401
Manifest ID:	96798019
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0917
Waste Quantity:	22
Quantity Unit:	G
Additional Code 1:	Not reported

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Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970331
Creation Date:	7/17/1997 0:00:00
Receipt Date:	19970401
Manifest ID:	96798019
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2004
Gen EPA ID:	CA0000085977
Shipment Date:	20040203
Creation Date:	9/10/2004 8:42:02
Receipt Date:	20040212
Manifest ID:	22929110
Trans EPA ID:	CAR000036921
Trans Name:	CONSOLIDATED WESTERN LLC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	ONYX ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.22935
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Additional Code 5:	Not reported
Shipment Date:	20040203
Creation Date:	9/10/2004 8:42:02
Receipt Date:	20040212
Manifest ID:	22929110
Trans EPA ID:	CAR000036921
Trans Name:	CONSOLIDATED WESTERN LLC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	ONYX ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2001
Gen EPA ID:	CA0000085977
Shipment Date:	20010821
Creation Date:	11/1/2001 0:00:00
Receipt Date:	20010829
Manifest ID:	21139839
Trans EPA ID:	CAR000095927
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2293
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010821

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Creation Date:	11/1/2001 0:00:00
Receipt Date:	20010829
Manifest ID:	21139839
Trans EPA ID:	CAR000095927
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	D001
Meth Code:	- Not reported
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20010821
Creation Date:	11/1/2001 0:00:00
Receipt Date:	20010829
Manifest ID:	21139839
Trans EPA ID:	CAR000095927
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20010403
Creation Date:	6/12/2001 0:00:00
Receipt Date:	20010409
Manifest ID:	20826564
Trans EPA ID:	CAR000036921
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2293
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010403
Creation Date:	6/12/2001 0:00:00
Receipt Date:	20010409
Manifest ID:	20826564
Trans EPA ID:	CAR000036921
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD008302903
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010108
Creation Date:	4/9/2001 0:00:00
Receipt Date:	20010111
Manifest ID:	20589566
Trans EPA ID:	CAD983657719
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010108
Creation Date:	4/9/2001 0:00:00
Receipt Date:	20010111
Manifest ID:	20589566
Trans EPA ID:	CAD983657719
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008302903
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.06
Waste Quantity:	120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1995
Gen EPA ID:	CA0000085977
Shipment Date:	19951206
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951207
Manifest ID:	95896845
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.1501
Waste Quantity:	36
Quantity Unit:	G

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19951206
Creation Date:	9/18/1996 0:00:00
Receipt Date:	19951207
Manifest ID:	95896845
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950808
Creation Date:	7/26/1996 0:00:00
Receipt Date:	19950809
Manifest ID:	95473219
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950808

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Creation Date:	7/26/1996 0:00:00
Receipt Date:	19950809
Manifest ID:	95473219
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0542
Waste Quantity:	13
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950606
Creation Date:	10/24/1995 0:00:00
Receipt Date:	Not reported
Manifest ID:	95661635
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950606
Creation Date:	10/24/1995 0:00:00
Receipt Date:	Not reported
Manifest ID:	95661635
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	0.0208
Waste Quantity:	5
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950509
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950510
Manifest ID:	95621238
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0583
Waste Quantity:	14
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950509
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950510
Manifest ID:	95621238
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950308
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950309
Manifest ID:	95218548
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950308
Creation Date:	4/2/1996 0:00:00
Receipt Date:	19950309
Manifest ID:	95218548
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD981397417
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Additional Info:

Year:	1996
Gen EPA ID:	CA0000085977
Shipment Date:	19961204
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19961205
Manifest ID:	96314836
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961204
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19961205
Manifest ID:	96314836
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0875
Waste Quantity:	21
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961007
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961008
Manifest ID:	96535303

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.2107
Waste Quantity:	0.25
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961007
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961008
Manifest ID:	96535303
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960807
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19960808
Manifest ID:	96585139
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0583
Waste Quantity:	14
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960807
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19960808
Manifest ID:	96585139
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960604
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19960605
Manifest ID:	96062619
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0583
Waste Quantity:	14

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960604
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19960605
Manifest ID:	96062619
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960319
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960320
Manifest ID:	96028450
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.0834
Waste Quantity:	20
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Shipment Date:	19960319
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960320
Manifest ID:	96028450
Trans EPA ID:	CAD981414386
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981397417
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	0
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

San Bern. Co. Permit:

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0000215
Owner:	A & A CLEANERS
Permit Number:	PT0006921
Permit Category:	SMALL QUANTITY GENERATOR
Facility Status:	ACTIVE
Expiration Date:	11/30/2020

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0000215
Owner:	A & A CLEANERS
Permit Number:	PT0006920
Permit Category:	HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status:	ACTIVE
Expiration Date:	11/30/2020

CERS:

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	89370
CERS ID:	10034338
CERS Description:	Chemical Storage Facilities

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Violations:

Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	10-29-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 01/22/2014. Failure to manage hazardous waste lawfully (CHSC 25154) COMPLIANCE DOCUMENTATION WAS RECEIVED. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-14-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 02/01/2017. Failure to store hazardous waste in sound containers (CCR 66265.171) RING SEAL ON THE SOLID HAZARDOUS WASTE CONTAINER IS NOT WORKING; REPAIR/REPLACE THIS DAMAGED RING SEAL. C OF C SIGNED DOCUMENT WAS RECEIVED ON 2/1/2017. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	10-29-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 01/22/2014. Hazardous waste accumulation time exceeded (CCR 66262.34(a)) COMPLIANCE DOCUMENTATION WAS RECEIVED. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS

Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-14-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 01/19/2017. UPDATED BUSINESS PLAN WAS SUBMITTED ON 1/19/2017.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	10-29-2013

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Citation:	HSC 6.95 25505(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)
Violation Description:	Owner/Operator failed to complete and/or submit a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes:	Returned to compliance on 01/19/2017.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-02-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	OBSERVATION: Observed the CERS business plan was last certified / updated on 01/19/2017. CORRECTIVE ACTION: Review and certify the business plan via CERS. Your CERS ID number is 10034338.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-02-2019
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes:	OBSERVATION: Observed facility only had one Consolidated Hazardous Waste Manifest from 10/30/2019 available for review. CORRECTIVE ACTION: Locate copies of all manifests for last three years and submit copies of the two most recent manifest records to this Division.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-14-2016
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Training - General
Violation Notes:	Returned to compliance on 02/01/2017. Failure to train facility personnel in hazardous waste management procedures (CCR 66265.16) C OF C SIGNED DOCUMENT WAS RECEIVED ON 2/1/2017. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	89370

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	10-29-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 01/22/2014. Failure to note accumulation start date on labels (CCR 66262.34(f)(2)) COMPLIANCE DOCUMENTATION WAS RECEIVED. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-02-2019
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	OBSERVATION: Observed no employee training documentation available for review at the time of inspection. CORRECTIVE ACTION: Conduct initial and annual employee training and maintain training records for a minimum of three years. Submit a signed statement indicating that training has been conducted and that training records will be kept on site for review.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	10-29-2013
Citation:	HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description:	Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 01/22/2014. Failure to complete hazardous waste labels (CCR 66262.34(f)(3)) COMPLIANCE DOCUMENTATION WAS RECEIVED. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HW
Violation Source:	CERS
Site ID:	89370
Site Name:	ACACIA PLAZA CLEANERS
Violation Date:	12-02-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	OBSERVATION: Observed approximately 123 gallons of Green Earth SD32 (Cyclopentasiloxane) in newly installed dry cleaning machine. Facility no longer uses Perchloroethylene as dry cleaning solvent. CORRECTIVE ACTION: Update CERS inventory to reflect change in dry cleaning solvent. Submit an accurate and complete hazardous materials inventory

ACACIA PLAZA CLEANERS (Continued) **1000886158**

via CERS.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: REGULAR INSPECTION.
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: REGULAR INSPECTION.
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-02-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-02-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-14-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-14-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 89370
Site Name: ACACIA PLAZA CLEANERS
Site Address: 587 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 89370
Site Name: ACACIA PLAZA CLEANERS
Site Address: 587 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 89370
Site Name: ACACIA PLAZA CLEANERS
Site Address: 587 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 12-14-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 89370
Site Name: ACACIA PLAZA CLEANERS
Site Address: 587 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 12-14-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Coordinates:

Site ID:	89370
Facility Name:	ACACIA PLAZA CLEANERS
Env Int Type Code:	HWG
Program ID:	10034338
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	34.106720
Longitude:	-117.359708

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401

Affiliation Type Desc:	Environmental Contact
Entity Name:	AVTAR CHAHAL
Entity Title:	Not reported
Affiliation Address:	23593 Gold Nugget Ave
Affiliation City:	RIALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92376
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Avtar Chahal
Entity Title:	OWNER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	A & A CLEANERS
Entity Title:	Not reported
Affiliation Address:	587 E FOOTHILL BLVD
Affiliation City:	RIALTO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92376-5223
Affiliation Phone:	(909) 820-7050

Affiliation Type Desc:	Operator
Entity Name:	AVTAR CHAHAL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

ACACIA PLAZA CLEANERS (Continued) **1000886158**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(909) 979-4703
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	587 E FOOTHILL BLVD
Affiliation City:	RIALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92376-5223
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Avtar Chahal
Entity Title:	Not reported
Affiliation Address:	587 E. Foothill Blvd.
Affiliation City:	Rialto
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92376
Affiliation Phone:	(909) 979-4703
Affiliation Type Desc:	Parent Corporation
Entity Name:	ACACIA PLAZA CLEANERS
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HWTS:

Name:	ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923760000
EPA ID:	CA0000085977
Inactive Date:	06/30/2003
Create Date:	12/08/1995
Last Act Date:	07/06/2010
Mailing Name:	Not reported
Mailing Address:	587 E FOOTHILL BLVD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RIALTO, CA 923760000
Owner Name:	PETER YANG
Owner Address:	587 E FOOTHILL BLVD
Owner Address 2:	Not reported
Owner City,State,Zip:	RIALTO, CA 923760000
Contact Name:	PETER YANG OWNER
Contact Address:	587 E FOOTHILL BLVD
Contact Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923760000

A2 **ACACIA CLEANERS** **EDR Hist Cleaner** **1019920412**
587 E FOOTHILL BLVD **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 2 of 11 in cluster A

Relative: EDR Hist Cleaner
Lower

Actual:
1238 ft.

Year:	Name:	Type:
1992	BEST CLEANERS	Drycleaning Plants, Except Rugs
1993	BEST CLEANERS	Drycleaning Plants, Except Rugs
2001	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2002	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2003	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2004	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2005	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2006	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2007	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2008	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2009	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2010	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2011	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2012	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2013	ACACIA CLEANERS	Drycleaning Plants, Except Rugs
2014	ACACIA CLEANERS	Drycleaning Plants, Except Rugs

A3 **A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS** **HAZNET** **S113133305**
587 E FOOTHILL BLVD **HWTS** **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 3 of 11 in cluster A

Relative: HAZNET:
Lower

Actual:
1238 ft.

Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765223
Contact:	AVTAR S. CHAHAL PRES
Telephone:	9098207050
Mailing Name:	Not reported
Mailing Address:	587 E FOOTHILL BLVD
Year:	2012
Gepaid:	CAL000284978
TSD EPA ID:	CAD980675276
CA Waste Code:	611 - Contaminated soil from site clean-up
Disposal Method:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	4.72
Year:	2005
Gepaid:	CAL000284978
TSD EPA ID:	NVR000076158
CA Waste Code:	-
Disposal Method:	R01 - Recycler
Tons:	Not reported
Year:	2005
Gepaid:	CAL000284978
TSD EPA ID:	NVR000076158

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

CA Waste Code:	211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	-
Tons:	0.4587
Year:	2005
Gepaid:	CAL000284978
TSD EPA ID:	NVR000076158
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	R01 - Recycler
Tons:	Not reported
Year:	2005
Gepaid:	CAL000284978
TSD EPA ID:	NVR000076158
CA Waste Code:	211 - Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	R01 - Recycler
Tons:	0.4587
Year:	2005
Gepaid:	CAL000284978
TSD EPA ID:	NVR000076158
CA Waste Code:	-
Disposal Method:	-
Tons:	Not reported

Additional Info:

Year:	2012
Gen EPA ID:	CAL000284978
Shipment Date:	20120724
Creation Date:	9/27/2012 22:15:12
Receipt Date:	20120726
Manifest ID:	005334426FLE
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENVIRONMENTAL SERVICES INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980675276
Trans Name:	CLEAN HARBORS BUTTONWILLOW LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	611 - Contaminated soil from site clean-ups
RCRA Code:	F002
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	4.72
Waste Quantity:	4
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

Additional Info:

Year:	2005
Gen EPA ID:	CAL000284978
Shipment Date:	20051101
Creation Date:	1/3/2007 18:30:08
Receipt Date:	20051107
Manifest ID:	24799783
Trans EPA ID:	CAR000166827
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20051101
Creation Date:	1/3/2007 18:30:08
Receipt Date:	20051107
Manifest ID:	24799783
Trans EPA ID:	CAR000166827
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.22935
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20051101
Creation Date:	1/3/2007 18:30:08
Receipt Date:	20051107
Manifest ID:	24799783

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

Trans EPA ID:	CAR000166827
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20051101
Creation Date:	1/3/2007 18:30:08
Receipt Date:	20051107
Manifest ID:	24799783
Trans EPA ID:	CAR000166827
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20050718
Creation Date:	10/27/2005 10:10:50
Receipt Date:	20050728
Manifest ID:	24550075
Trans EPA ID:	CAR000036921
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride,

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

	perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20050718
Creation Date:	10/27/2005 10:10:50
Receipt Date:	20050728
Manifest ID:	24550075
Trans EPA ID:	CAR000036921
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20050718
Creation Date:	10/27/2005 10:10:50
Receipt Date:	20050728
Manifest ID:	24550075
Trans EPA ID:	CAR000036921
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	R01 - Recycler
Quantity Tons:	0.22935
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20050718
Creation Date:	10/27/2005 10:10:50
Receipt Date:	20050728
Manifest ID:	24550075
Trans EPA ID:	CAR000036921
Trans Name:	AMERICAN INDUSTRIAL SERVICES
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	R01 - Recycler
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20050314
Creation Date:	8/24/2005 7:27:35
Receipt Date:	20050324
Manifest ID:	24186657
Trans EPA ID:	CAR000036921
Trans Name:	CONSOLIDATED WESTERN
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20050314
Creation Date:	8/24/2005 7:27:35
Receipt Date:	20050324
Manifest ID:	24186657
Trans EPA ID:	CAR000036921

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **S113133305**

Trans Name:	CONSOLIDATED WESTERN
Trans 2 EPA ID:	CAD981375983
Trans 2 Name:	TECHNICHEM INC
TSDF EPA ID:	NVR000076158
Trans Name:	RESOLVENT INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	211 - Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.
RCRA Code:	F002
Meth Code:	- Not reported
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 92376
EPA ID:	CAL000284978
Inactive Date:	Not reported
Create Date:	07/23/2004
Last Act Date:	08/29/2020
Mailing Name:	Not reported
Mailing Address:	587 E FOOTHILL BLVD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RIALTO, CA 923765223
Owner Name:	A & A CLEANERS INC
Owner Address:	23593 GOLD NUGGET AVE
Owner Address 2:	Not reported
Owner City,State,Zip:	DIAMOND BAR, CA 917650000
Contact Name:	AVTAR S. CHAHAL PRES
Contact Address:	589 E FOOTHILL BLVD
Contact Address 2:	Not reported
City,State,Zip:	RIALTO, CA 92376

NAICS:

EPA ID:	CAL000284978
Create Date:	2004-07-23 15:24:27.003
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
Issued EPA ID Date:	2004-07-23 15:24:26.97300
Inactive Date:	Not reported
Facility Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Facility Address:	587 E FOOTHILL BLVD
Facility Address 2:	Not reported
Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	92376

A4 **BEST CLEANERS** **DRYCLEANERS** **S121700158**
587 E FOOTHILL BLVD **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 4 of 11 in cluster A

Relative: DRYCLEAN SOUTH COAST:
Lower

Name:	BEST CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Facility ID:	88886
Application Number:	257859
Permit Number:	D63917
Status:	A
Representative Name:	ANDREW SK CHO
Representative Telephone:	714 7943505
Permit Status:	INACT_NR
BCAT Number:	000234
BCAT Description:	DRY CLEANING EQUIP PERCHLOROETHYLENE
CCAT Number:	Not reported
CCAT Description:	Not reported
UTM East:	0
UTM North:	0
Application Date:	11/14/1991
PO Issue Date:	10/16/1992
NAICS Code:	812320
SIC Code:	7216

Actual:
1238 ft.

A5 **A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS** **RCRA NonGen / NLR** **1024809513**
587 E FOOTHILL BLVD **CAL000284978**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 5 of 11 in cluster A

Relative: RCRA NonGen / NLR:
Lower

Date Form Received by Agency:	2004-07-23 00:00:00.0
Handler Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Handler Address:	587 E FOOTHILL BLVD
Handler City,State,Zip:	RIALTO, CA 92376
EPA ID:	CAL000284978
Contact Name:	AVTAR S. CHAHAL PRES
Contact Address:	589 E FOOTHILL BLVD
Contact City,State,Zip:	RIALTO, CA 92376
Contact Telephone:	909-820-7050
Contact Fax:	000-000-0000
Contact Email:	AVTARCHAHAL51@GMAIL.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	587 E FOOTHILL BLVD
Mailing City,State,Zip:	RIALTO, CA 92376-5223
Owner Name:	A & A CLEANERS INC
Owner Type:	Other

Actual:
1238 ft.

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **1024809513**

Operator Name:	AVTAR S. CHAHAL PRES
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-05 20:25:55.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS (Continued) **1024809513**

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	A & A CLEANERS INC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	23593 GOLD NUGGET AVE
Owner/Operator City,State,Zip:	DIAMOND BAR, CA 91765-0000
Owner/Operator Telephone:	909-979-4703
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	AVTAR S. CHAHAL PRES
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	589 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-820-7050
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2004-07-23 00:00:00.0
Handler Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	81232
NAICS Description:	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

A6 **PM 6899 PARCEL 2 APN 0133-171-31-000** **FINDS** **1026421583**
534 EAST FOOTHILL BOULEVARD **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 6 of 11 in cluster A

Relative: FINDS:
Lower Registry ID: 110070743189

Actual:
1240 ft. Click Here:

Environmental Interest/Information System:
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A7 **A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS** **FINDS** **1024667120**
587 E FOOTHILL BLVD **ECHO** **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 7 of 11 in cluster A

Relative: FINDS:
Lower Registry ID: 110070455514

Actual:
1238 ft. Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1024667120
Registry ID:	110070455514
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110070455514
Name:	A & A CLEANERS INC DBA ACACIA PLAZA CLEANERS
Address:	587 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376

A8 **PM 6899 PARCEL 2 APN 0133-171-31-000** **NPDES S119084080**
534 EAST FOOTHILL BOULEVARD **CIWQS N/A**
< 1/8 **RIALTO, CA 92376** **CERS**
1 ft.

Site 8 of 11 in cluster A

Relative: **Lower**

Actual: **1240 ft.**

NPDES:

Name:	AZURE ROUTE 66 PLAZA
Address:	534 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	8 36C377631
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Terminated
Status Date:	03/04/2020
Operator Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Operator Address:	1071 N BATAVIA
Operator City:	ORANGE
Operator State:	California
Operator Zip:	92867

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	8
Regulatory Measure ID:	478401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	8 36C377631
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/27/2016
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Discharge Address:	1071 N BATAVIA
Discharge City:	ORANGE
Discharge State:	California
Discharge Zip:	92867
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Region:	8
Regulatory Measure ID:	478401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	8 36C377631
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	09/23/2016
Processed Date:	09/27/2016
Status:	Active
Status Date:	09/27/2016
Place Size:	8.32
Place Size Unit:	Acres
Contact:	Kevin Ha
Contact Title:	Not reported
Contact Phone:	888-310-0587
Contact Phone Ext:	Not reported
Contact Email:	kevinhalong09@gmail.com
Operator Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Operator Address:	1071 N BATAVIA
Operator City:	ORANGE
Operator State:	California
Operator Zip:	92867
Operator Contact:	Kevin Ha
Operator Contact Title:	Not reported
Operator Contact Phone:	888-310-0587
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kevinhalong09@gmail.com
Operator Type:	Private Business
Developer:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Developer Address:	1071 N BATAVIA
Developer City:	ORANGE
Developer State:	California
Developer Zip:	92867
Developer Contact:	Kevin Ha
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Living facility buildings

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Kevin Ha
Certifier Title:	Principal
Certification Date:	23-SEP-16
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Name:	AZURE ROUTE 66 PLAZA
Address:	534 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Facility Status:	Terminated
NPDES Number:	CAS000002
Region:	8
Agency Number:	0
Regulatory Measure ID:	478401
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	8 36C377631
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/27/2016
Termination Date Of Regulatory Measure:	03/04/2020
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	1071 N BATAVIA
Discharge Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Discharge City:	ORANGE
Discharge State:	California
Discharge Zip:	92867
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	8
Regulatory Measure ID:	478401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	8 36C377631
Program Type:	Construction

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/27/2016
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Discharge Address:	1071 N BATAVIA
Discharge City:	ORANGE
Discharge State:	California
Discharge Zip:	92867
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	8
Regulatory Measure ID:	478401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	8 36C377631
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	09/23/2016
Processed Date:	09/27/2016
Status:	Active
Status Date:	09/27/2016
Place Size:	8.32
Place Size Unit:	Acres
Contact:	Kevin Ha
Contact Title:	Not reported
Contact Phone:	888-310-0587
Contact Phone Ext:	Not reported
Contact Email:	kevinhalong09@gmail.com
Operator Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Operator Address:	1071 N BATAVIA
Operator City:	ORANGE
Operator State:	California
Operator Zip:	92867
Operator Contact:	Kevin Ha
Operator Contact Title:	Not reported
Operator Contact Phone:	888-310-0587
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kevinhalong09@gmail.com
Operator Type:	Private Business
Developer:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Developer Address:	1071 N BATAVIA
Developer City:	ORANGE
Developer State:	California
Developer Zip:	92867
Developer Contact:	Kevin Ha
Developer Contact Title:	Not reported

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Living facility buildings
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Not reported
Certifier:	Kevin Ha
Certifier Title:	Principal
Certification Date:	23-SEP-16
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Name:	PM 6899 PARCEL 2 APN 0133-171-31-000
Address:	534 EAST FOOTHILL BOULEVARD
City,State,Zip:	RIALTO, CA 92376
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	8 36CN606001
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Undetermined
Status Date:	04/22/2020
Operator Name:	Yasmeh Behzad
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Operator Zip: Not reported

CIWQS:
Name: AZURE ROUTE 66 PLAZA
Address: 534 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Agency: AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Agency Address: 1071 N BATAVIA, Orange, CA 92867
Place/Project Type: Construction - Commercial
SIC/NAICS: Not reported
Region: 8
Program: CONSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 8 36C377631
NPDES Number: CAS000002
Adoption Date: 01/01/1900
Effective Date: 09/27/2016
Termination Date: 03/04/2020
Expiration/Review Date: 01/01/1900
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 5
Violations within 5 years: 4
Latitude: 34.107626
Longitude: -117.36019

CERS:
Name: AZURE ROUTE 66 PLAZA
Address: 534 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Site ID: 526888
CERS ID: 850012
CERS Description: Construction Storm Water

Violations:
Site ID: 526888
Site Name: Azure Route 66 Plaza
Violation Date: 09-02-2019
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Late Report
Violation Notes: Failure to submit 2018 - 2019 Annual Report by due date
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS

Site ID: 526888
Site Name: Azure Route 66 Plaza
Violation Date: 10-08-2018
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Deficient BMP Implementation
Violation Notes: Abandoned site after rough grading, creating slope erosion and sediment ladened run-offs, without perimeter BMPs.
Violation Division: Water Boards

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Violation Program: CONSTW
Violation Source: SMARTS

Site ID: 526888
Site Name: Azure Route 66 Plaza
Violation Date: 09-18-2018
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Late Report
Violation Notes: Failure to submit 2017-18 Annual Report by the September 1, 2018 due date.
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 06-18-2019
Violations Found: No
Eval Type: Construction Storm Water Compliance Evaluation
Eval Notes: Vacant property.
Eval Division: Water Boards
Eval Program: CONSTW
Eval Source: SMARTS

Eval General Type: Complaint Inspection
Eval Date: 10-08-2018
Violations Found: Yes
Eval Type: Industrial Storm Water Complaint Inspection
Eval Notes: City of Rialto's staff (Lynn Merrill and Robert Eisenbeisz) complained about site left unstabilized and incomplete without proper BMPs. The state of the site created erosional issues as well as neighboring property damages. On arrival, I've observed the site appeared to be abandoned. Site underwent partial rough and precise pad grading, as well as utility trenching at the northern and eastern perimeter. According to the City's staff, the rough grading was not authorized to begin. Site began its rough grading before grading permit was issued. The rough grading cut vertical slopes close to the neighboring residential and business property, created erosional and property retentional wall damages. Northern perimeter trenching broke City's existing underground storm water drainage conveyance pipe. To mitigate the flow, additional trenching was performed along the eastern perimeter towards the southern perimeter. According to the southern property owners, the prior storm water flow from the broken conveyance system and site's sheet flows caused flooding to the southern business properties. Homeless group gathered at the two abandoned structures at the western perimeter, with noticeable human waste odors by Regional Board and City staff. City indicated it would be deploying cleaning crew and law enforcement officers to patrol the area to discourage homeless activities at this abandoned site.
Eval Division: Water Boards
Eval Program: CONSTW
Eval Source: SMARTS

Eval General Type: Case Development Inspection
Eval Date: 12-04-2018
Violations Found: No
Eval Type: Industrial Storm Water Enforcement Follow-up

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Eval Notes: Office trailer at site has burned. No one was at the site. Construction at the site appears to have been suspended.
Eval Division: Water Boards
Eval Program: CONSTW
Eval Source: SMARTS

Enforcement Action:
Site ID: 526888
Site Name: Azure Route 66 Plaza
Site Address: 534 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 05-23-2019
Enf Action Type: Industrial Storm Water Enforcement
Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes: Failure to submit 2017-18 Annual Report in SMARTS by September 1, 2018.
Enf Action Division: Water Boards
Enf Action Program: CONSTW
Enf Action Source: SMARTS

Site ID: 526888
Site Name: Azure Route 66 Plaza
Site Address: 534 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 10-07-2019
Enf Action Type: Industrial Storm Water Enforcement
Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes: Failure to submit 2018-2019 Annual Report by due date
Enf Action Division: Water Boards
Enf Action Program: CONSTW
Enf Action Source: SMARTS

Site ID: 526888
Site Name: Azure Route 66 Plaza
Site Address: 534 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 10-08-2018
Enf Action Type: Industrial Storm Water Enforcement
Enf Action Description: Industrial Storm Water Enforcement
Enf Action Notes: Attempting communication with Azure Capital: Mr. Long (Kevin) Ha (kevinhalong09@gmail.com) Mr. Yang Mr. & Mrs. Anza, owners (info@azuregroupusa.com or 714-707-3212) Mr. Ben Yashmed (818-402-9202 or nationaltradinge@aol.com) I contacted Mr. Long (Kevin) Ha in obtaining information about the site. The company Azura Capital released Mr. Ha from the project back in 2016, with Mr. Yang (the project's manager) released from the project shortly after Mr. Ha in 2018. In accordance to Mr. Ha's information, the company was filing for bankruptcy on the property by Mr. and Mrs. Anz, with Ben Yashmed as the primary contact (818-402-9202 or nationaltradinge@aol.com). I've forwarded my communication to Mr. Yashmed as well as Azure Capital (info@azuregroupusa.com or 714-707-3212) after obtaining the information and awaiting response from either Azure Capital or Mr. Yashmed.
Enf Action Division: Water Boards

PM 6899 PARCEL 2 APN 0133-171-31-000 (Continued) **S119084080**

Enf Action Program:	CONSTW
Enf Action Source:	SMARTS
Site ID:	526888
Site Name:	Azure Route 66 Plaza
Site Address:	534 E FOOTHILL BLVD
Site City:	RIALTO
Site Zip:	92376
Enf Action Date:	10-29-2018
Enf Action Type:	Industrial Storm Water Enforcement
Enf Action Description:	Industrial Storm Water Enforcement
Enf Action Notes:	Failure to submit 2017-18 Annual Report by the September 1, 2018 due date.
Enf Action Division:	Water Boards
Enf Action Program:	CONSTW
Enf Action Source:	SMARTS

Affiliation:

Affiliation Type Desc:	Owner/Operator
Entity Name:	AZURE ROUTE 66 ROUTE PLAZA PARTNERS LLC
Entity Title:	Operator
Affiliation Address:	1071 N BATAVIA
Affiliation City:	ORANGE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92867
Affiliation Phone:	Not reported

A9 **PM 6899 PARCEL 2 APN 0133-171-31-000** **ECHO** **1026184444**
534 EAST FOOTHILL BOULEVARD **N/A**
< 1/8 **RIALTO, CA 92376**
1 ft.

Site 9 of 11 in cluster A

Relative: Lower
Actual: 1240 ft.

ECHO:

Envid:	1026184444
Registry ID:	110070743189
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110070743189
Name:	PM 6899 PARCEL 2 APN 0133-171-31-000
Address:	534 EAST FOOTHILL BOULEVARD
City,State,Zip:	RIALTO, CA 92376

B10 **CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS G** **HAZNET** **S113022728**
SW **510 E FOOTHILL BLVD** **San Bern. Co. Permit** **N/A**
< 1/8 **RIALTO, CA 92376** **HWTS**
0.008 mi.
40 ft.

Site 1 of 5 in cluster B

Relative: Lower
Actual: 1243 ft.

HAZNET:

Name:	CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR
Address:	510 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765224
Contact:	SUSAN F FERGUSON
Telephone:	9097931639

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Mailing Name:	Not reported
Mailing Address:	1631 W. Redlands Blvd
Year:	2004
Gepaid:	CAL000003071
TSD EPA ID:	CAT000613927
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01 - Transfer Station
Tons:	0.3612
Year:	2003
Gepaid:	CAL000003071
TSD EPA ID:	CAT000613927
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01 - Transfer Station
Tons:	0.231
Year:	2002
Gepaid:	CAL000003071
TSD EPA ID:	CAT000613927
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01 - Transfer Station
Tons:	0.1512
Year:	2002
Gepaid:	CAL000003071
TSD EPA ID:	CAT000613927
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	-
Tons:	0.0168
Year:	2000
Gepaid:	CAL000003071
TSD EPA ID:	CAT080013352
CA Waste Code:	222 - Oil/water separation sludge
Disposal Method:	R01 - Recycler
Tons:	8.5485
Year:	1998
Gepaid:	CAL000003071
TSD EPA ID:	CAT080013352
CA Waste Code:	222 - Oil/water separation sludge
Disposal Method:	R01 - Recycler
Tons:	2.2935
Year:	1996
Gepaid:	CAL000003071
TSD EPA ID:	CAT080013352
CA Waste Code:	222 - Oil/water separation sludge
Disposal Method:	R01 - Recycler
Tons:	1.8765
Year:	1996

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Gepaid:	CAL000003071
TSD EPA ID:	CAD093459485
CA Waste Code:	214 - Unspecified solvent mixture
Disposal Method:	H01 - Transfer Station
Tons:	0.0144
Year:	1995
Gepaid:	CAL000003071
TSD EPA ID:	CAT080013352
CA Waste Code:	222 - Oil/water separation sludge
Disposal Method:	R01 - Recycler
Tons:	2.085
Year:	1995
Gepaid:	CAL000003071
TSD EPA ID:	CAT080013352
CA Waste Code:	135 - Unspecified aqueous solution
Disposal Method:	R01 - Recycler
Tons:	1.155

Click this hyperlink while viewing on your computer to access
1 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2004
Gen EPA ID:	CAL000003071
Shipment Date:	20040526
Creation Date:	10/15/2004 10:47:43
Receipt Date:	20040527
Manifest ID:	23506931
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20040526
Creation Date:	10/15/2004 10:47:43
Receipt Date:	20040527
Manifest ID:	23506931
Trans EPA ID:	TXR000050930

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1134
Waste Quantity:	27
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20040324
Creation Date:	8/23/2004 8:25:08
Receipt Date:	20040324
Manifest ID:	23459740
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1176
Waste Quantity:	28
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20040324
Creation Date:	8/23/2004 8:25:08
Receipt Date:	20040324
Manifest ID:	23459740
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20040203
Creation Date:	8/19/2004 11:23:49
Receipt Date:	20040204
Manifest ID:	22578688
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0798
Waste Quantity:	19
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20040203
Creation Date:	8/19/2004 11:23:49
Receipt Date:	20040204
Manifest ID:	22578688
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Additional Info:

Year:	1996
Gen EPA ID:	CAL000003071
Shipment Date:	19960228
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960228
Manifest ID:	93721547
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	1.8765
Waste Quantity:	450
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960218
Creation Date:	10/16/1996 0:00:00
Receipt Date:	19960221
Manifest ID:	95757097
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	ILD984908202
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD093459485
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0144
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2003
Gen EPA ID:	CAL000003071

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Shipment Date:	20031220
Creation Date:	8/30/2004 14:52:16
Receipt Date:	20031220
Manifest ID:	23304892
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20031220
Creation Date:	8/30/2004 14:52:16
Receipt Date:	20031220
Manifest ID:	23304892
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.063
Waste Quantity:	15
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20031104
Creation Date:	8/3/2004 15:03:33
Receipt Date:	20031104
Manifest ID:	22526160
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031104
Creation Date:	8/3/2004 15:03:33
Receipt Date:	20031104
Manifest ID:	22526160
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0714
Waste Quantity:	17
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20030908
Creation Date:	7/13/2004 10:48:19
Receipt Date:	20030908
Manifest ID:	22887698
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	SAFETY-KLEEN SYSTEMS INC
TSDF Alt EPA ID:	CAT000613927
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.063
Waste Quantity:	15
Quantity Unit:	G

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1995
Gen EPA ID:	CAL000003071
Shipment Date:	19950222
Creation Date:	3/29/1996 0:00:00
Receipt Date:	19950222
Manifest ID:	95244035
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	2.085
Waste Quantity:	500
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19950126
Creation Date:	10/20/1995 0:00:00
Receipt Date:	19950126
Manifest ID:	95249729
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	1.155
Waste Quantity:	275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Additional Info:

Year:	2002
Gen EPA ID:	CAL000003071
Shipment Date:	20020828
Creation Date:	3/14/2003 18:31:30
Receipt Date:	20020828
Manifest ID:	21901998
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0714
Waste Quantity:	17
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020828
Creation Date:	3/14/2003 18:31:30
Receipt Date:	20020828
Manifest ID:	21901998
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	H01 - Transfer Station
Quantity Tons:	Not reported
Waste Quantity:	4
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020709
Creation Date:	2/7/2003 18:31:14
Receipt Date:	20020709
Manifest ID:	21738892
Trans EPA ID:	SCR000075150

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0798
Waste Quantity:	19
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20020709
Creation Date:	2/7/2003 18:31:14
Receipt Date:	20020709
Manifest ID:	21738892
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613927
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	D039
Meth Code:	- Not reported
Quantity Tons:	0.0168
Waste Quantity:	4
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2000
Gen EPA ID:	CAL000003071

Shipment Date:	20001201
Creation Date:	3/6/2001 0:00:00
Receipt Date:	20001201
Manifest ID:	20780655
Trans EPA ID:	CAD982403198
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	3.336
Waste Quantity:	800
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20001117
Creation Date:	3/5/2001 0:00:00
Receipt Date:	20001117
Manifest ID:	20780410
Trans EPA ID:	CAT028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	3.1275
Waste Quantity:	750
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000308
Creation Date:	5/23/2000 0:00:00
Receipt Date:	20000305
Manifest ID:	99625595
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	2.085
Waste Quantity:	500
Quantity Unit:	G
Additional Code 1:	Not reported

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1998
Gen EPA ID:	CAL000003071
Shipment Date:	19981003
Creation Date:	11/23/1998 0:00:00
Receipt Date:	19981003
Manifest ID:	98164894
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	2.2935
Waste Quantity:	550
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

San Bern. Co. Permit:

Name:	MEINEKE CAR CARE
Address:	510 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0015466
Owner:	A.U.M. AUTOMOTIVE LLC
Permit Number:	PT0033930
Permit Category:	SMALL QUANTITY GENERATOR
Facility Status:	INACTIVE
Expiration Date:	05/31/2016

Name:	MEINEKE CAR CARE
Address:	510 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0015466
Owner:	A.U.M. AUTOMOTIVE LLC
Permit Number:	PT0033929
Permit Category:	HAZARDOUS MATERIALS 4-10 CHEMICALS
Facility Status:	INACTIVE
Expiration Date:	05/31/2016

CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR (Continued) **S113022728**

HWTS:

Name:	CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR
Address:	510 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765224
EPA ID:	CAL000003071
Inactive Date:	06/30/2014
Create Date:	11/14/1989
Last Act Date:	08/25/2014
Mailing Name:	Not reported
Mailing Address:	1631 W. REDLANDS BLVD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	REDLANDS, CA 923730000
Owner Name:	THE TIRE GUYS
Owner Address:	1631 W. REDLANDS BLVD.
Owner Address 2:	Not reported
Owner City,State,Zip:	REDLANDS, CA 923730000
Contact Name:	SUSAN FERGUSON
Contact Address:	1631 W. REDLANDS BLVD.
Contact Address 2:	Not reported
City,State,Zip:	REDLANDS, CA 92373

NAICS:

EPA ID:	CAL000003071
Create Date:	2005-09-27 15:01:35.000
NAICS Code:	811111
NAICS Description:	General Automotive Repair
Issued EPA ID Date:	1989-11-14 00:00:00
Inactive Date:	2014-06-30 00:00:00
Facility Name:	CAMINO WEST COAST SERVICES INC DBA THE TIRE GUYS GOOD YEAR
Facility Address:	510 E FOOTHILL BLVD
Facility Address 2:	Not reported
Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	923765224

B11 **CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR** **RCRA NonGen / NLR** **1024863425**
SW **510 E FOOTHILL BLVD** **CAL000431970**
< 1/8 **RIALTO, CA 92376**
0.008 mi.
40 ft. **Site 2 of 5 in cluster B**

Relative: **Lower**
Actual: **1243 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:	2017-11-07 00:00:00.0
Handler Name:	CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR
Handler Address:	510 E FOOTHILL BLVD
Handler City,State,Zip:	RIALTO, CA 92376
EPA ID:	CAL000431970
Contact Name:	ELSA OROZCO OWNER
Contact Address:	568 S WATERMAN AVE STE A
Contact City,State,Zip:	SAN BERNARDINO, CA 92408
Contact Telephone:	909-640-7009
Contact Fax:	Not reported
Contact Email:	CALIFORNIATIRES200@YAHOO.COM
Contact Title:	Not reported
EPA Region:	09

CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR (Continued) **1024863425**

Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	568 S WATERMAN AVE STE A
Mailing City,State,Zip:	SAN BERNARDINO, CA 92408
Owner Name:	ELSA OROZCO
Owner Type:	Other
Operator Name:	ELSA OROZCO OWNER
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No

CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR (Continued) **1024863425**

Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-07 19:36:57.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ELSA OROZCO
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	568 S WATERMAN AVE STE A
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92408
Owner/Operator Telephone:	909-289-0655
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	ELSA OROZCO OWNER
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	568 S WATERMAN AVE STE A
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92408
Owner/Operator Telephone:	909-640-7009
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2017-11-07 00:00:00.0
Handler Name:	CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	213111
NAICS Description:	DRILLING OIL AND GAS WELLS

CALIFORNIA TIRES AND WHEELS #2 AND AUTO REPAIR (Continued) **1024863425**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

B12 **TIRE GUYS GOODYEAR** **San Bern. Co. Permit** **S104575292**
SW **510 E FOOTHILL BLVD** **N/A**
< 1/8 **RIALTO, CA 92376**
0.008 mi.
40 ft. **Site 3 of 5 in cluster B**

Relative:
Lower

Actual:
1243 ft.

San Bern. Co. Permit:
Name: TIRE GUYS GOODYEAR
Address: 510 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0003530
Owner: JAMES FERGUSON
Permit Number: PT0004798
Permit Category: LARGE QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 08/31/2013

Name: TIRE GUYS GOODYEAR
Address: 510 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0003530
Owner: JAMES FERGUSON
Permit Number: PT0004797
Permit Category: HAZARDOUS MATERIALS 4-10 CHEMICALS
Facility Status: INACTIVE
Expiration Date: 08/31/2013

A13 **ACME AUTO SALES** **San Bern. Co. Permit** **S102041291**
SE **612 E FOOTHILL BLVD** **HWTS** **N/A**
< 1/8 **RIALTO, CA 92376**
0.018 mi.
97 ft. **Site 10 of 11 in cluster A**

Relative:
Lower

Actual:
1236 ft.

San Bern. Co. Permit:
Name: ACME AUTO SALES
Address: 612 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0000247
Owner: CHRZANOWSKI, NORMAN
Permit Number: PT0007629
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 05/31/2008

Name: ACME AUTO SALES

ACME AUTO SALES (Continued) **S102041291**

Address: 612 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0000247
Owner: CHRZANOWSKI, NORMAN
Permit Number: PT0007628
Permit Category: SPECIAL HANDLER
Facility Status: INACTIVE
Expiration Date: 05/31/2008

HWTS:

Name:	ACME AUTO SALES
Address:	612 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765226
EPA ID:	CAL000325305
Inactive Date:	06/30/2014
Create Date:	09/27/2007
Last Act Date:	11/14/2014
Mailing Name:	Not reported
Mailing Address:	PO BOX 99
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RIALTO, CA 923760000
Owner Name:	CHRZANOWSKI NORMAN
Owner Address:	5325 STERLING AVE
Owner Address 2:	Not reported
Owner City,State,Zip:	SAN BERNARDINO, CA 924040000
Contact Name:	NORMAN CHRZANOWSKI
Contact Address:	612 E FOOTHILL BLVD
Contact Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765226

NAICS:

EPA ID:	CAL000325305
Create Date:	2007-09-27 13:57:17.517
NAICS Code:	44111
NAICS Description:	New Car Dealers
Issued EPA ID Date:	2007-09-27 13:57:17.50000
Inactive Date:	2014-06-30 00:00:00
Facility Name:	ACME AUTO SALES
Facility Address:	612 E FOOTHILL BLVD
Facility Address 2:	Not reported
Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	923765226

A14 **A1 TIRES & WHEELS** **RCRA NonGen / NLR** **1024828827**
South **629 E FOOTHILL BLVD** **CAL000361165**
< 1/8 **RIALTO, CA 92376**
0.019 mi.
102 ft. **Site 11 of 11 in cluster A**

Relative: RCRA NonGen / NLR:
Lower

Actual: Date Form Received by Agency:		2011-02-18 00:00:00.0
1238 ft. Handler Name:	A1 TIRES & WHEELS	
Handler Address:		629 E FOOTHILL BLVD
Handler City,State,Zip:		RIALTO, CA 92376-5225
EPA ID:		CAL000361165
Contact Name:		JOSE FELIX OWNER
Contact Address:		629 E FOOTHILL BLVD
Contact City,State,Zip:		RIALTO, CA 92376-5225
Contact Telephone:		909-874-2247
Contact Fax:		909-874-2655
Contact Email:		JFELIX909@YAHOO.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		629 E FOOTHILL BLVD
Mailing City,State,Zip:		RIALTO, CA 92376-5225
Owner Name:		JOSE LUIS FELIX
Owner Type:		Other
Operator Name:		JOSE FELIX OWNER
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes
Universal Waste Destination Facility:		Yes
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

A1 TIRES & WHEELS (Continued) **1024828827**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-05 20:34:03.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	JOSE LUIS FELIX
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	629 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376-5225
Owner/Operator Telephone:	909-728-1017
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	JOSE FELIX OWNER
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	629 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376-5225
Owner/Operator Telephone:	909-874-2247
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

A1 TIRES & WHEELS (Continued) **1024828827**

Historic Generators:
Receive Date: 2011-02-18 00:00:00.0
Handler Name: A1 TIRES & WHEELS
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 811111
NAICS Description: GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

C15 **WEST COAST AUTO CENTER** **EDR Hist Auto** **1022124566**
SE **631 E FOOTHILL BLVD** **N/A**
< 1/8 **RIALTO, CA 92376**
0.038 mi.
200 ft. **Site 1 of 8 in cluster C**

Relative: EDR Hist Auto
Lower

Actual:
1234 ft.

Year:	Name:	Type:
1989	RAVENS AUTO BODY & PAINT	General Automotive Repair Shops
1990	RAVENS AUTO BODY & PAINT	General Automotive Repair Shops
1991	RAVENS AUTO BODY & PAINT	General Automotive Repair Shops
1992	RAVENS AUTO BODY & PAINT	General Automotive Repair Shops
1993	RAVENS AUTO BODY & PAINT	General Automotive Repair Shops
1995	WEST COAST AUTO CENTER	Automotive Transmission Repair Shops
1996	WEST COAST AUTO CENTER	Automotive Transmission Repair Shops
1997	WEST COAST AUTO CENTER	Automotive Transmission Repair Shops
1998	CAMACHOS AUTO REPAIR	General Automotive Repair Shops
1998	WEST COAST AUTO CENTER	Automotive Transmission Repair Shops
1999	CAMACHOS AUTO REPAIR	General Automotive Repair Shops
1999	WEST COAST AUTO CENTER	General Automotive Repair Shops
2000	CAMACHOS AUTO REPAIR	General Automotive Repair Shops
2000	WEST COAST AUTO CENTER	General Automotive Repair Shops
2001	WEST COAST AUTO CENTER	General Automotive Repair Shops
2001	CAMACHOS AUTO REPAIR	General Automotive Repair Shops
2002	WEST COAST AUTO CENTER	General Automotive Repair Shops
2003	WEST COAST AUTO CENTER	General Automotive Repair Shops
2004	WEST COAST AUTO CENTER	General Automotive Repair Shops

C16 **RAVEN'S AUTO BODY PAINT** **RCRA-SQG** **1000206984**
SE **631 E FOOTHILL BLVD** **FINDS** **CAD982320426**
< 1/8 **RIALTO, CA 92376** **ECHO**
0.038 mi.
200 ft. **Site 2 of 8 in cluster C**

Relative: **Lower**

Actual: **1234 ft.**

RCRA-SQG:

Date Form Received by Agency:		1988-03-16 00:00:00.0
Handler Name:	RAVEN'S AUTO BODY PAINT	
Handler Address:		631 E FOOTHILL BLVD
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAD982320426
Contact Name:		ENVIRONMENTAL MANAGER
Contact Address:		631 E FOOTHILL BLVD
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		714-874-1700
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		CA
State District:		4
Mailing Address:		E FOOTHILL BLVD
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		LARRY RAVEN
Owner Type:		Private
Operator Name:		NOT REQUIRED
Operator Type:		Private
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		NN
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

RAVEN'S AUTO BODY PAINT (Continued) **1000206984**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2000-09-15 17:30:09.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	LARRY RAVEN
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

RAVEN'S AUTO BODY PAINT (Continued) **1000206984**

Historic Generators:

Receive Date:	1988-03-16 00:00:00.0
Handler Name:	RAVEN'S AUTO BODY PAINT
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

FINDS:

Registry ID:	110002793362

Click Here:

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000206984
Registry ID:	110002793362
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002793362
Name:	RAVEN'S AUTO BODY PAINT
Address:	631 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376

C17 **IMPERIAL AUTO BODY & PAINT** **HAZNET** **S113152686**
SE **631 E FOOTHILL BLVD** **San Bern. Co. Permit** **N/A**
< 1/8 **RIALTO, CA 92376** **HWTS**
0.038 mi.
200 ft. **Site 3 of 8 in cluster C**

Relative:
Lower

Actual:
1234 ft.

HAZNET:

Name:	IMPERIAL AUTO BODY & PAINT
Address:	631 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 92376
Contact:	MIGUEL MOLINA
Telephone:	9098797569
Mailing Name:	Not reported
Mailing Address:	631 E FOOTHILL BLVD
Year:	2008
Gepaid:	CAL000332795
TSD EPA ID:	CAD008252405
CA Waste Code:	214 - Unspecified solvent mixture
Disposal Method:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.1476

Additional Info:

Year:	2008
Gen EPA ID:	CAL000332795
Shipment Date:	20080805
Creation Date:	1/15/2009 18:30:42
Receipt Date:	20080805
Manifest ID:	003936331JJK
Trans EPA ID:	CAD008252405
Trans Name:	PACIFIC COAST LACQUER
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	F005
Meth Code:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.0108
Waste Quantity:	3
Quantity Unit:	G
Additional Code 1:	F003
Additional Code 2:	D001
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080805
Creation Date:	1/15/2009 18:30:42
Receipt Date:	20080805
Manifest ID:	003936331JJK
Trans EPA ID:	CAD008252405
Trans Name:	PACIFIC COAST LACQUER
Trans 2 EPA ID:	Not reported

IMPERIAL AUTO BODY & PAINT (Continued) **S113152686**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD008252405
Trans Name:	PACIFIC RESOURCE RECOVERY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	F005
Meth Code:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.1368
Waste Quantity:	38
Quantity Unit:	G
Additional Code 1:	F003
Additional Code 2:	D001
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

San Bern. Co. Permit:

Name:	AUTOFOURTEEN
Address:	631 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0015671
Owner:	Octavio Nava
Permit Number:	PT0034235
Permit Category:	HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status:	INACTIVE
Expiration Date:	10/31/2020

Name:	AUTOFOURTEEN
Address:	631 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0015671
Owner:	Octavio Nava
Permit Number:	PT0034234
Permit Category:	CONDITIONALLY EXEMPT SM QTY GENERATOR
Facility Status:	INACTIVE
Expiration Date:	10/31/2020

HWTS:

Name:	IMPERIAL AUTO BODY & PAINT
Address:	631 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 92376
EPA ID:	CAL000332795
Inactive Date:	06/30/2008
Create Date:	05/20/2008
Last Act Date:	04/13/2010
Mailing Name:	Not reported
Mailing Address:	631 E FOOTHILL BLVD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RIALTO, CA 92376
Owner Name:	MIGUEL MOLINA
Owner Address:	17022 MALAGA ST
Owner Address 2:	Not reported

IMPERIAL AUTO BODY & PAINT (Continued) **S113152686**

Owner City,State,Zip:	FONTANA, CA 92336
Contact Name:	MIGUEL MOLINA
Contact Address:	631 E FOOTHILL BLVD
Contact Address 2:	Not reported
City,State,Zip:	RIALTO, CA 92376

NAICS:

EPA ID:	CAL000332795
Create Date:	2008-05-20 15:35:32.283
NAICS Code:	811121
NAICS Description:	Automotive Body, Paint, and Interior Repair and Maintenance
Issued EPA ID Date:	2008-05-20 15:35:32.25300
Inactive Date:	2008-06-30 00:00:00
Facility Name:	IMPERIAL AUTO BODY & PAINT
Facility Address:	631 E FOOTHILL BLVD
Facility Address 2:	Not reported
Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	92376

C18 **AUTO FOURTEEN** **RCRA NonGen / NLR** **1024849868**
SE **631 E FOOTHILL BLVD** **CAL000406948**
< 1/8 **RIALTO, CA 92376**
0.038 mi.
200 ft. **Site 4 of 8 in cluster C**

Relative: **Lower**
Actual: **1234 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		2015-05-19 00:00:00.0
Handler Name:	AUTO FOURTEEN	
Handler Address:		631 E FOOTHILL BLVD
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAL000406948
Contact Name:		OCTAVIO NAVA-GAMBOA
Contact Address:		631 E FOOTHILL BLVD
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		909-265-8879
Contact Fax:		909-440-5017
Contact Email:		AUTOFOURTEEN@OUTLOOK.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		631 E FOOTHILL BLVD
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		OCTAVIO NAVA-GAMBOA
Owner Type:		Other
Operator Name:		OCTAVIO NAVA-GAMBOA
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No

AUTO FOURTEEN (Continued) **1024849868**

Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-06 17:06:08.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:
Owner/Operator Indicator: Operator

AUTO FOURTEEN (Continued) **1024849868**

Owner/Operator Name:	OCTAVIO NAVA-GAMBOA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	631 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-265-8879
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	OCTAVIO NAVA-GAMBOA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	631 E FOOTHILL BLVD
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-265-8879
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2015-05-19 00:00:00.0
Handler Name: AUTO FOURTEEN	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	811111
NAICS Description:	GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

C19 **FOOTHILL AUTO BODY** **San Bern. Co. Permit** **S107592097**
SE **631 E FOOTHILL BLVD** **HWTS** **N/A**
< 1/8 **RIALTO, CA 92376**
0.038 mi.
200 ft. **Site 5 of 8 in cluster C**

Relative: **Lower**

Actual: **1234 ft.**

San Bern. Co. Permit:

Name: M & M CUSTOM CAR CENTER
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0013332
Owner: M & M CUSTOM CAR CENTER
Permit Number: PT0023522
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR SPECIAL
Facility Status: INACTIVE
Expiration Date: 09/30/2011

Name: IMPERIAL AUTO BODY AND PAINT
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0011614
Owner: MOLINA, MIGUEL
Permit Number: PT0020054
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 05/31/2008

Name: IMPERIAL AUTO BODY AND PAINT
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0011614
Owner: MOLINA, MIGUEL
Permit Number: PT0020055
Permit Category: SPECIAL HANDLER
Facility Status: INACTIVE
Expiration Date: 05/31/2008

Name: FOOTHILL AUTO BODY
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0010205
Owner: RETANA, ROWLAND
Permit Number: PT0017350
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES (W/GEN PRMT)
Facility Status: INACTIVE
Expiration Date: 02/28/2006

Name: FOOTHILL AUTO BODY
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0010205
Owner: RETANA, ROWLAND
Permit Number: PT0017349
Permit Category: HAZARDOUS WASTE GENERATOR - 0-10 EMPLOYEES

FOOTHILL AUTO BODY (Continued) **S107592097**

Facility Status: INACTIVE
Expiration Date: 02/28/2006

Name: WEST COAST AUTO CENTER
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0007252
Owner: JORGE UGALDE
Permit Number: PT0000670
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 10/31/2005

Name: WEST COAST AUTO CENTER
Address: 631 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0007252
Owner: JORGE UGALDE
Permit Number: PT0000671
Permit Category: SPECIAL HANDLER
Facility Status: INACTIVE
Expiration Date: 10/31/2005

HWTS:
Name: FOOTHILL AUTO BODY
Address: 631 E FOOTHILL BLVD
Address 2: Not reported
City,State,Zip: RIALTO, CA 92376
EPA ID: CAL000302980
Inactive Date: 06/30/2006
Create Date: 02/03/2006
Last Act Date: 05/25/2007
Mailing Name: Not reported
Mailing Address: 631 E FOOTHILL BLVD
Mailing Address 2: Not reported
Mailing City,State,Zip: RIALTO, CA 92376
Owner Name: ROWLLAND E RETANA
Owner Address: 20 MARIA CT
Owner Address 2: Not reported
Owner City,State,Zip: REDLANDS, CA 92374
Contact Name: ROWLLAND RETANA
Contact Address: 20 MARIA CT
Contact Address 2: Not reported
City,State,Zip: REDLANDS, CA 92374

NAICS:
EPA ID: CAL000302980
Create Date: 2006-02-03 08:30:44.687
NAICS Code: 811121
NAICS Description: Automotive Body, Paint, and Interior Repair and Maintenance
Issued EPA ID Date: 2006-02-03 08:30:44.64000
Inactive Date: 2006-06-30 10:14:52
Facility Name: FOOTHILL AUTO BODY
Facility Address: 631 E FOOTHILL BLVD
Facility Address 2: Not reported

FOOTHILL AUTO BODY (Continued) **S107592097**

Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	92376

C20 **ANGELES MACHINE SHOP** **RCRA NonGen / NLR** **1025872102**
SE **644 E FOOTHILL BLVD UNIT 5** **CAL000445222**
< 1/8 **RIALTO, CA 92376**
0.040 mi.
211 ft. **Site 6 of 8 in cluster C**

Relative: **Lower**

Actual: **1235 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		2019-04-15 00:00:00.0
Handler Name:	ANGELES MACHINE SHOP	
Handler Address:		644 E FOOTHILL BLVD UNIT 5
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAL000445222
Contact Name:		ANGEL LOPEZ
Contact Address:		644 E FOOTHILL BLVD UNIT 5
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		909-961-2767
Contact Fax:		Not reported
Contact Email:		ANGELLOPEZ1955@ICLOUD.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		644 E FOOTHILL BLVD UNIT 5
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		ANGEL LOPEZ
Owner Type:		Other
Operator Name:		ANGEL LOPEZ
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		Yes
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes
Universal Waste Destination Facility:		Yes
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported

ANGELES MACHINE SHOP (Continued) **1025872102**

Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2019-06-28 17:26:56.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ANGEL LOPEZ
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	639 S CLIFFORD
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-609-0499
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	ANGEL LOPEZ
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported

ANGELES MACHINE SHOP (Continued) **1025872102**

Owner/Operator Address: 644 E FOOTHILL BLVD UNIT 5
Owner/Operator City,State,Zip: RIALTO, CA 92376
Owner/Operator Telephone: 909-961-2767
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2019-04-15 00:00:00.0
Handler Name: ANGELES MACHINE SHOP
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

C21 **MENDOZA AUTOMOTIVE REPAIR** **RCRA-SQG** **1000594339**
SE **644 E FOOTHILL BLVD** **FINDS** **CAD983581588**
< 1/8 **RIALTO, CA 92376** **ECHO**
0.040 mi. **San Bern. Co. Permit**
211 ft. **Site 7 of 8 in cluster C** **HWTS**

Relative: **Lower**
Actual: **1235 ft.**

RCRA-SQG:
Date Form Received by Agency: 1991-05-20 00:00:00.0
Handler Name: MENDOZA AUTOMOTIVE REPAIR
Handler Address: 644 E FOOTHILL BLVD
Handler City,State,Zip: RIALTO, CA 92376
EPA ID: CAD983581588
Contact Name: GEORGE MENDOZA
Contact Address: 644 E FOOTHILL BLVD
Contact City,State,Zip: RIALTO, CA 92376
Contact Telephone: 714-873-2343
Contact Fax: Not reported
Contact Email: Not reported
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Small Quantity Generator
Non-Notifier: Not reported
Biennial Report Cycle: Not reported

MENDOZA AUTOMOTIVE REPAIR (Continued) **1000594339**

Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	CA
State District:	4
Mailing Address:	E FOOTHILL BLVD
Mailing City,State,Zip:	RIALTO, CA 92376
Owner Name:	GEORGE MENDOZA
Owner Type:	Private
Operator Name:	NOT REQUIRED
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported

MENDOZA AUTOMOTIVE REPAIR (Continued) **1000594339**

Handler Date of Last Change:	2000-09-15 17:30:31.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GEORGE MENDOZA
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1991-05-20 00:00:00.0
Handler Name:	MENDOZA AUTOMOTIVE REPAIR
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

Facility Has Received Notices of Violations:

Violations:	No Violations Found

MENDOZA AUTOMOTIVE REPAIR (Continued) **1000594339**

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110002843763

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000594339
Registry ID: 110002843763
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002843763
Name: MENDOZA AUTOMOTIVE REPAIR
Address: 644 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376

San Bern. Co. Permit:
Name: MENDOZA AUTOMOTIVE REPAIR
Address: 644 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0004658
Owner: LEON, HECTOR & MARIA
Permit Number: PT0007650
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 05/31/2001

Name: MENDOZA AUTOMOTIVE REPAIR
Address: 644 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0004658
Owner: LEON, HECTOR & MARIA
Permit Number: PT0007651
Permit Category: SPECIAL HANDLER
Facility Status: INACTIVE
Expiration Date: 05/31/2001

HWTS:
Name: MENDOZA AUTOMOTIVE REPAIR
Address: 644 E FOOTHILL BLVD
Address 2: Not reported
City,State,Zip: RIALTO, CA 923760000

MENDOZA AUTOMOTIVE REPAIR (Continued) **1000594339**

EPA ID:	CAD983581588
Inactive Date:	06/30/1998
Create Date:	05/20/1991
Last Act Date:	08/10/2004
Mailing Name:	Not reported
Mailing Address:	644 E FOOTHILL BLVD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	RIALTO, CA 923765284
Owner Name:	GEORGE MENDOZA
Owner Address:	644 E FOOTHILL BLVD
Owner Address 2:	Not reported
Owner City,State,Zip:	RIALTO, CA 923765284
Contact Name:	--
Contact Address:	INACTIVE PER VQ98 - BMI
Contact Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923760000

D22 **SHURTE JOHN R** **EDR Hist Auto** **1020843941**
SSW **503 E FOOTHILL BLVD** **N/A**
< 1/8 **RIALTO, CA 92376**
0.041 mi.
215 ft. **Site 1 of 3 in cluster D**

Relative: EDR Hist Auto
Lower

Actual:
1240 ft.

Year:	Name:	Type:
1969	MAC LAURIN HARRY	Gasoline Service Stations
1970	MAC LAURIN HARRY	Gasoline Service Stations
1973	SHURTE JOHN R	Gasoline Service Stations
1974	SHURTE JOHN R	Gasoline Service Stations
1975	SHURTE JOHN R	Gasoline Service Stations
1976	SHURTE JOHN R	Gasoline Service Stations
1977	SHURTE JOHN R	Gasoline Service Stations
1978	SHURTE JOHN R	Gasoline Service Stations
1979	SHURTE JOHN R	Gasoline Service Stations
1980	SHURTE JOHN R	Gasoline Service Stations
1982	SHURTE JOHN R	Gasoline Service Stations
1983	SHURTE JOHN R	Gasoline Service Stations
1985	SHURTE JOHN R	Gasoline Service Stations
1986	SHURTE JOHN R	Gasoline Service Stations
1987	SHURTE JOHN R	Gasoline Service Stations
1988	SHURTE JOHN R	Gasoline Service Stations
1990	CHRISTIAN CAR CENTER	General Automotive Repair Shops

D23 **JOHNS MOBL** **HIST UST** **U001575542**
SSW **503 E FOOTHILL** **N/A**
< 1/8 **RIALTO, CA 92376**
0.041 mi.
215 ft. **Site 2 of 3 in cluster D**

Relative: HIST UST:
Lower

Actual:
1240 ft.

Name:	JOHNS MOBL
Address:	503 E FOOTHILL
City,State,Zip:	RIALTO, CA 92376
File Number:	0002A085
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002A085.pdf

JOHNS MOBL (Continued) **U001575542**

Region:	STATE
Facility ID:	00000065286
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	7148759671
Owner Name:	JOHN R. SHURTE
Owner Address:	503 E. FOOTHILL
Owner City,St,Zip:	RIALTO, CA 92376
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00000100
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00007500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

D24
SSW
< 1/8
0.041 mi.
215 ft.

JOHN'S TEXACO
503 E FOOTHILL
RIALTO, CA 92376

Site 3 of 3 in cluster D

SWEEPS UST **S101591828**
CA FID UST **N/A**

Relative:
Lower

Actual:
1240 ft.

SWEEPS UST:

Name:	JOHN'S TEXACO
Address:	503 E FOOTHILL
City:	RIALTO
Status:	Active
Comp Number:	65286
Number:	9
Board Of Equalization:	44-021406
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	36-000-065286-000001
Tank Status:	A
Capacity:	7500
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	4

Name:	JOHN'S TEXACO
Address:	503 E FOOTHILL
City:	RIALTO
Status:	Active
Comp Number:	65286
Number:	9
Board Of Equalization:	44-021406
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	4
SWRCB Tank Id:	36-000-065286-000002
Tank Status:	A
Capacity:	100
Active Date:	07-01-85
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

Name:	JOHN'S TEXACO
Address:	503 E FOOTHILL
City:	RIALTO
Status:	Active
Comp Number:	65286
Number:	9
Board Of Equalization:	44-021406
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	3
SWRCB Tank Id:	36-000-065286-000003

JOHN'S TEXACO (Continued) **S101591828**

Tank Status: A
Capacity: 7500
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: JOHN'S TEXACO
Address: 503 E FOOTHILL
City: RIALTO
Status: Active
Comp Number: 65286
Number: 9
Board Of Equalization: 44-021406
Referral Date: 07-28-92
Action Date: 07-28-92
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 36-000-065286-000004
Tank Status: A
Capacity: 7500
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 36009242
Regulated By: UTNKA
Regulated ID: 00065286
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 503 E FOOTHILL
Mailing Address 2: Not reported
Mailing City,St,Zip: RIALTO 92376
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

B25 **PIERCE PAINT & AUTO BODY** **EDR Hist Auto** **1020563624**
SW **501 E FOOTHILL** **N/A**
< 1/8 **RIALTO, CA 92376**
0.043 mi.
227 ft. **Site 4 of 5 in cluster B**

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
1244 ft. 1971 CARLIN EDWARD A Not reported

PIERCE PAINT & AUTO BODY (Continued) **1020563624**

1972	CARLIN EDWARD A	Not reported
1973	CARLIN EDWARD A	Not reported
1974	CARLIN EDWARD A	Not reported
1987	PIERCE PAINT & AUTO BODY	Not reported

B26 **PIERCES AUTO BODY** **RCRA-SQG** **1000354371**
SW **501 E FOOTHILL** **FINDS** **CAD982031650**
< 1/8 **RIALTO, CA 92376** **ECHO**
0.043 mi.
227 ft. **Site 5 of 5 in cluster B**

Relative: **Higher**
Actual: **1244 ft.**

RCRA-SQG:

Date Form Received by Agency:		1987-08-25 00:00:00.0
Handler Name:	PIERCES AUTO BODY	
Handler Address:		501 E FOOTHILL
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAD982031650
Contact Name:		ENVIRONMENTAL MANAGER
Contact Address:		501 E FOOTHILL
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		714-871-1200
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		CA
State District:		4
Mailing Address:		E FOOTHILL
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		MIKE PIERCE OWNER
Owner Type:		Private
Operator Name:		NOT REQUIRED
Operator Type:		Private
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		NN

PIERCES AUTO BODY (Continued) **1000354371**

Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2000-09-15 17:30:06.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	MIKE PIERCE OWNER
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED

PIERCES AUTO BODY (Continued) **1000354371**

Owner/Operator City,State,Zip: NOT REQUIRED, ME 99999
Owner/Operator Telephone: 415-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 1987-08-25 00:00:00.0
Handler Name: PIERCES AUTO BODY
Federal Waste Generator Description: Small Quantity Generator
State District Owner: CA
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110002783257

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000354371
Registry ID: 110002783257
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002783257
Name: PIERCES AUTO BODY
Address: 501 E FOOTHILL
City,State,Zip: RIALTO, CA 92376

C27 **RIALTO CAR WASH** **LUST** **S105025785**
ESE **660 RIALTO** **HIST CORTESE** **N/A**
< 1/8 **RIALTO, CA 92376**
0.052 mi.
273 ft. **Site 8 of 8 in cluster C**

Relative: **Lower**

Actual: **1233 ft.**

LUST REG 8:

Name:	RIALTO CAR WASH
Address:	660 FOOTHILL BLVD
City:	RIALTO
Region:	8
County:	San Bernardino
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083603579T
Local Case Num:	99120
Case Type:	Undefined
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	EUCALYPTUS
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0607100607
How Stopped Date:	7/27/1999
Enter Date:	12/17/1999
Date Confirmation of Leak Began:	7/27/1999
Date Preliminary Assessment Began:	Not reported
Discover Date:	7/27/1999
Enforcement Date:	Not reported
Close Date:	4/21/2000
Date Prelim Assessment Workplan Submitted:	8/31/1999
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/17/1999
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.1067
Longitude:	-117.3525
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	TME
Staff Initials:	LH6
Lead Agency:	Local Agency

RIALTO CAR WASH (Continued) **S105025785**

Local Agency:	36000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No
Summary:	Not reported

HIST CORTESE:

edr_fname:	RIALTO CAR WASH
edr_fadd1:	660 RIALTO
City,State,Zip:	RIALTO, CA 92376
Region:	CORTESE
Facility County Code:	36
Reg By:	LTNKA
Reg Id:	083603579T

E28 **RIALTO CAR WASH** **LUST U001575554**
ESE **660 E FOOTHILL BLVD** **HIST UST N/A**
< 1/8 **RIALTO, CA 92376**
0.055 mi.
289 ft. **Site 1 of 10 in cluster E**

Relative:
Lower

Actual:
1233 ft.

LUST:

Name:	RIALTO CAR WASH
Address:	660 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Lead Agency:	SAN BERNARDINO COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100607
Global Id:	T0607100607
Latitude:	34.1067
Longitude:	-117.3525
Status:	Completed - Case Closed
Status Date:	04/21/2000
Case Worker:	Not reported
RB Case Number:	083603579T
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	99120
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0607100607
Contact Type:	Regional Board Caseworker
Contact Name:	MIGUEL OVIEDO
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 Main Street, Suite 500
City:	RIVERSIDE
Email:	miguel.oviedo@waterboards.ca.gov
Phone Number:	9517823238

LUST:

Global Id:	T0607100607
Action Type:	Other

RIALTO CAR WASH (Continued) **U001575554**

Date: 07/27/1999
Action: Leak Discovery

Global Id: T0607100607
Action Type: Other
Date: 07/27/1999
Action: Leak Stopped

Global Id: T0607100607
Action Type: Other
Date: 08/31/1999
Action: Leak Reported

LUST:
Global Id: T0607100607
Status: Open - Case Begin Date
Status Date: 07/27/1999

Global Id: T0607100607
Status: Open - Site Assessment
Status Date: 07/27/1999

Global Id: T0607100607
Status: Open - Site Assessment
Status Date: 08/31/1999

Global Id: T0607100607
Status: Completed - Case Closed
Status Date: 04/21/2000

HIST UST:
Name: RIALTO CAR WASH
Address: 660 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
File Number: 00029EF2
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00029EF2.pdf
Region: STATE
Facility ID: 00000049479
Facility Type: Gas Station
Other Type: Not reported
Contact Name: JEF STEELMAN
Telephone: 7148741460
Owner Name: GAIL M. BURCHAM
Owner Address: 41061 QUAIL RD.
Owner City,St,Zip: HEMET, CA 92344
Total Tanks: 0003

Tank Num: 001
Container Num: 3
Year Installed: 1979
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

RIALTO CAR WASH (Continued) **U001575554**

Tank Num:	002
Container Num:	1
Year Installed:	1979
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	2
Year Installed:	1979
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

E29 **RIALTO CAR WASH** **SWEEPS UST** **S101619405**
ESE **660 E FOOTHILL BLVD** **CA FID UST** **N/A**
< 1/8 **RIALTO, CA 92376** **Cortese**
0.055 mi. **CERS**
289 ft. **Site 2 of 10 in cluster E**

Relative: **Lower**

Actual: **1233 ft.**

SWEEPS UST:

Name:	RIALTO CAR WASH
Address:	660 E FOOTHILL BLVD
City:	RIALTO
Status:	Active
Comp Number:	49479
Number:	9
Board Of Equalization:	44-021127
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	3
SWRCB Tank Id:	36-000-049479-000001
Tank Status:	A
Capacity:	8000
Active Date:	08-25-88
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	3

Name:	RIALTO CAR WASH
Address:	660 E FOOTHILL BLVD
City:	RIALTO
Status:	Active
Comp Number:	49479
Number:	9
Board Of Equalization:	44-021127
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	1

RIALTO CAR WASH (Continued) **S101619405**

SWRCB Tank Id: 36-000-049479-000002
Tank Status: A
Capacity: 10000
Active Date: 08-25-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: RIALTO CAR WASH
Address: 660 E FOOTHILL BLVD
City: RIALTO
Status: Active
Comp Number: 49479
Number: 9
Board Of Equalization: 44-021127
Referral Date: 07-28-92
Action Date: 07-28-92
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 36-000-049479-000003
Tank Status: A
Capacity: 8000
Active Date: 08-25-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 36000649
Regulated By: UTNKA
Regulated ID: 00049479
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 660 E FOOTHILL BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: RIALTO 92376
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CORTESE:
Name: RIALTO CAR WASH
Address: 660 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0607100607
Site/Facility Type: LUST CLEANUP SITE

RIALTO CAR WASH (Continued) **S101619405**

Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	RIALTO CAR WASH
Address:	660 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	251338
CERS ID:	T0607100607
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	MIGUEL OVIEDO - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 Main Street, Suite 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9517823238

E30 **SHELL STATION** **Notify 65** **S100179186**
ESE **684 EAST FOOTHILL BOULEVA** **N/A**
< 1/8 **RIALTO, CA 90017**
0.067 mi.
356 ft. **Site 3 of 10 in cluster E**

Relative:
Lower

Actual:
1233 ft.

NOTIFY 65:

Name:	SHELL STATION
Address:	684 EAST FOOTHILL BOULEVA
City,State,Zip:	RIALTO, CA 90017
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported
Global ID:	Not reported
Status:	Not reported

E31
ESE
< 1/8
0.067 mi.
356 ft.

MARY BESS ATKINSON
684 E FOOTHILL
RIALTO, CA 92376

Site 4 of 10 in cluster E

HIST UST **U001575546**
N/A

Relative:
Lower

Actual:
1233 ft.

HIST UST:

Name:	MARY BESS ATKINSON
Address:	684 E FOOTHILL
City,State,Zip:	RIALTO, CA 92376
File Number:	0002A642
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002A642.pdf
Region:	STATE
Facility ID:	00000018041
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	7148201316
Owner Name:	SHELL OIL COMPANY
Owner Address:	P.O. BOX 4848
Owner City,St,Zip:	ANAHEIM, CA 92803
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, 10
Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	12
Leak Detection:	Stock Inventor, 10

MARY BESS ATKINSON (Continued) **U001575546**

Click here for Geo Tracker PDF:

E32 **JAMES BYRON V** **EDR Hist Auto** **1021855863**
ESE **684 E FOOTHILL BLVD** **N/A**
< 1/8 **RIALTO, CA 92376**
0.067 mi.
356 ft. **Site 5 of 10 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: **1233 ft.**

Year:	Name:	Type:
1969	JAMES BYRON V	Gasoline Service Stations
1970	JAMES BYRON V	Gasoline Service Stations
1971	JAMES BYRON V	Gasoline Service Stations

E33 **SHELL SVC STN** **RCRA-SQG** **1004676139**
ESE **684 E FOOTHILL** **FINDS** **CAR000081349**
< 1/8 **RIALTO, CA 92376** **ECHO**
0.067 mi.
356 ft. **Site 6 of 10 in cluster E**

Relative: RCRA-SQG:
Lower

Actual: **1233 ft.**

Date Form Received by Agency:		2000-08-29 00:00:00.0
Handler Name:	SHELL SVC STN	
Handler Address:		684 E FOOTHILL
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAR000081349
Contact Name:		SONDRA BIENVENU
Contact Address:		P O BOX 2099
Contact City,State,Zip:		HOUSTON, TX 77252-2099
Contact Telephone:		713-241-5036
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		P O BOX 2099
Mailing City,State,Zip:		HOUSTON, TX 77252-2099
Owner Name:		EQUILON ENTERPRISES LLC
Owner Type:		Private
Operator Name:		Not reported
Operator Type:		Not reported
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No

SHELL SVC STN (Continued) **1004676139**

Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2006-09-05 00:00:00.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D018
Waste Description:	BENZENE

SHELL SVC STN (Continued) **1004676139**

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	EQUILON ENTERPRISES LLC
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	P O BOX 2099
Owner/Operator City,State,Zip:	HOUSTON, TX 77252-2099
Owner/Operator Telephone:	713-241-5036
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	EQUILON ENTERPRISES LLC
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	P O BOX 2099
Owner/Operator City,State,Zip:	HOUSTON, TX 77252-2099
Owner/Operator Telephone:	713-241-5036
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2000-08-29 00:00:00.0
Handler Name: SHELL SVC STN	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	2000-08-29 00:00:00.0
Handler Name: SHELL SVC STN	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

SHELL SVC STN (Continued) **1004676139**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110012266788

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1004676139
Registry ID:	110012266788
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110012266788
Name:	SHELL SVC STN
Address:	684 E FOOTHILL
City,State,Zip:	RIALTO, CA 92376

E34 **SURU'S SHELL** **LUST** **S104577955**
ESE **684 E FOOTHILL BLVD** **Cortese** **N/A**
< 1/8 **RIALTO, CA 92376** **CERS**
0.067 mi.
356 ft. **Site 7 of 10 in cluster E**

Relative:
Lower

Actual:
1233 ft.

LUST:

Name:	SURU'S SHELL
Address:	684 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Lead Agency:	SAN BERNARDINO COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100150
Global Id:	T0607100150
Latitude:	34.107102
Longitude:	-117.35761
Status:	Completed - Case Closed
Status Date:	08/23/1990
Case Worker:	CR2
RB Case Number:	083601286T
Local Agency:	SAN BERNARDINO COUNTY
File Location:	Local Agency
Local Case Number:	90202
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

SURU'S SHELL (Continued) **S104577955**

LUST:
Global Id: T0607100150
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: carl.bernhardt@waterboards.ca.gov
Phone Number: 9517824495

Global Id: T0607100150
Contact Type: Local Agency Caseworker
Contact Name: CATHERINE RICHARDS
Organization Name: SAN BERNARDINO COUNTY
Address: 620 SOUTH E STREET
City: SAN BERNARDINO
Email: crichards@sbcfire.org
Phone Number: 9093868419

LUST:
Global Id: T0607100150
Action Type: ENFORCEMENT
Date: 08/23/1990
Action: Closure/No Further Action Letter

Global Id: T0607100150
Action Type: Other
Date: 01/05/1990
Action: Leak Discovery

Global Id: T0607100150
Action Type: Other
Date: 01/05/1990
Action: Leak Stopped

Global Id: T0607100150
Action Type: Other
Date: 06/24/1989
Action: Leak Reported

LUST:
Global Id: T0607100150
Status: Open - Case Begin Date
Status Date: 06/24/1989

Global Id: T0607100150
Status: Open - Site Assessment
Status Date: 04/02/1990

Global Id: T0607100150
Status: Completed - Case Closed
Status Date: 08/23/1990

CORTESE:

SURU'S SHELL (Continued) **S104577955**

Name:	SURU'S SHELL
Address:	684 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0607100150
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	SURU'S SHELL
Address:	684 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	231599
CERS ID:	T0607100150
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	CATHERINE RICHARDS - SAN BERNARDINO COUNTY
Entity Title:	Not reported
Affiliation Address:	620 SOUTH E STREET
Affiliation City:	SAN BERNARDINO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9093868419

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	CARL BERNHARDT - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9517824495

E35 **SHELL SERVICE STATION** **HIST CORTESE** **S104791947**
ESE **684 FOOTHILL** **N/A**
< 1/8 **RIALTO, CA 92376**
0.070 mi.
372 ft. **Site 8 of 10 in cluster E**

Relative: HIST CORTESE:
Lower
Actual: edr_fname: SHELL SERVICE STATION
1232 ft. edr_fadd1: 684 FOOTHILL
City,State,Zip: RIALTO, CA 92376
Region: CORTESE
Facility County Code: 36
Reg By: LTNKA
Reg Id: 083601286T

E36 **SURU'S SHELL** **LUST** **S101591084**
ESE **684 FOOTHILL BLVD** **SWEEPS UST** **N/A**
< 1/8 **RIALTO, CA 92376** **CA FID UST**
0.079 mi.
418 ft. **Site 9 of 10 in cluster E**

Relative: LUST REG 8:
Lower
Actual: Name: SURU'S SHELL
1231 ft. Address: 684 FOOTHILL BLVD
City: RIALTO
Region: 8
County: San Bernardino
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083601286T
Local Case Num: 90202
Case Type: Soil only
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street: EUCALYPTUS
Enf Type: CLOS
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Other Cause
Leak Source: Tank
Global ID: T0607100150
How Stopped Date: 1/5/1990
Enter Date: 9/7/1989
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: 4/2/1990
Discover Date: 1/5/1990
Enforcement Date: 1/1/1965
Close Date: 8/23/1990
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 9/7/1989
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported

SURU'S SHELL (Continued) **S101591084**

Facility Contact:	Not reported
Interim:	Yes
Oversite Program:	LUST
Latitude:	34.1069422
Longitude:	-117.3576267
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	CR2
Lead Agency:	Local Agency
Local Agency:	36000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	PREVIOUS LEAK ON 4/12/89 STILL ACTIVE

SWEEPS UST:

Name:	SURU'S SHELL GAS MART
Address:	684 E FOOTHILL
City:	RIALTO
Status:	Active
Comp Number:	18041
Number:	9
Board Of Equalization:	44-020662
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	36-000-018041-000001
Tank Status:	A
Capacity:	12000
Active Date:	08-03-89
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	3

Name:	SURU'S SHELL GAS MART
Address:	684 E FOOTHILL
City:	RIALTO
Status:	Active
Comp Number:	18041
Number:	9
Board Of Equalization:	44-020662
Referral Date:	07-28-92
Action Date:	07-28-92
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	36-000-018041-000002
Tank Status:	A

SURU'S SHELL (Continued) **S101591084**

Capacity: 12000
Active Date: 08-03-89
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: SURU'S SHELL GAS MART
Address: 684 E FOOTHILL
City: RIALTO
Status: Active
Comp Number: 18041
Number: 9
Board Of Equalization: 44-020662
Referral Date: 07-28-92
Action Date: 07-28-92
Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 36-000-018041-000003
Tank Status: A
Capacity: 12000
Active Date: 08-03-89
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Name: SURU'S SHELL GAS MART
Address: 684 E FOOTHILL
City: RIALTO
Status: Not reported
Comp Number: 18041
Number: Not reported
Board Of Equalization: 44-020662
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 36-000-018041-000004
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: 1

CA FID UST:
Facility ID: 36001289
Regulated By: UTNKA
Regulated ID: 86008433
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: Not reported
Mail To: Not reported
Mailing Address: 684 E FOOTHILL
Mailing Address 2: Not reported

SURU'S SHELL (Continued) **S101591084**

Mailing City,St,Zip:	RIALTO 92376
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

F37 **STATER BROS MARKETS # 12 SO. RIALTO** **RCRA NonGen / NLR** **1024822317**
South **571 E FOOTHILL BLVD** **CAL000340278**
< 1/8 **RIALTO, CA 92376**
0.088 mi.
464 ft. **Site 1 of 2 in cluster F**

Relative: RCRA NonGen / NLR:
Lower

Actual: Date Form Received by Agency:	2009-02-03 00:00:00.0
1232 ft. Handler Name:	STATER BROS MARKETS # 12 SO. RIALTO
Handler Address:	571 E FOOTHILL BLVD
Handler City,State,Zip:	RIALTO, CA 92376-5223
EPA ID:	CAL000340278
Contact Name:	CHERYL SKALICKY
Contact Address:	301 S. TIPPECANOE AVE.
Contact City,State,Zip:	SAN BERNARDINO, CA 92408
Contact Telephone:	909-733-5288
Contact Fax:	909-733-4288
Contact Email:	CHERYL.SKALICKY@STATERBROS.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	PO BOX 150
Mailing City,State,Zip:	SAN BERNARDINO, CA 92402-0000
Owner Name:	STATER BROS MARKETS
Owner Type:	Other
Operator Name:	CHERYL SKALICKY
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported

STATER BROS MARKETS # 12 SO. RIALTO (Continued) **1024822317**

Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-05 20:31:03.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	CHERYL SKALICKY
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	301 S. TIPPECANOE AVE.
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92408
Owner/Operator Telephone:	909-733-5288
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	STATER BROS MARKETS

STATER BROS MARKETS # 12 SO. RIALTO (Continued) **1024822317**

Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	301 S TIPPECANOE AVE
Owner/Operator City,State,Zip:	SAN BERNARDINO, CA 92408-0121
Owner/Operator Telephone:	909-733-5000
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2009-02-03 00:00:00.0
Handler Name:	STATER BROS MARKETS # 12 SO. RIALTO
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	45291
NAICS Description:	WAREHOUSE CLUBS AND SUPERCENTERS

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

F38 **STATER BROS. MARKETS 012** **CERS HAZ WASTE** **S109117885**
South **571 E FOOTHILL BLVD** **HAZNET** **N/A**
< 1/8 **RIALTO, CA 92376** **San Bern. Co. Permit**
0.088 mi. **CERS**
464 ft. **Site 2 of 2 in cluster F** **HWTS**

Relative: Lower
Actual: 1232 ft.

CERS HAZ WASTE:

Name:	STATER BROS. MARKETS 012
Address:	571 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	71257
CERS ID:	10053013
CERS Description:	Hazardous Waste Generator

HAZNET:

Name:	STATER BROS MARKETS # 12 SO. RIALTO
Address:	571 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 924020000
Contact:	CHERYL SKALICKY

STATER BROS. MARKETS 012 (Continued) **S109117885**

Telephone: 9097335288
Mailing Name: Not reported
Mailing Address: PO BOX 150

Year: 2018
Gepaid: CAL000340278
TSD EPA ID: AZR000515924
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.01500

Year: 2018
Gepaid: CAL000340278
TSD EPA ID: ARD981057870
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H061 - Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.01000

Year: 2016
Gepaid: CAL000340278
TSD EPA ID: CAD028409019
CA Waste Code: 311 - Pharmaceutical waste
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0625

Year: 2016
Gepaid: CAL000340278
TSD EPA ID: AZR000515924
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.025

Year: 2016
Gepaid: CAL000340278
TSD EPA ID: CAD028409019
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.02

San Bern. Co. Permit:
Name: STATER BROS. MARKETS 012
Address: 571 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0011494
Owner: STATER BROS. MARKETS
Permit Number: PT0024996
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR SPECIAL
Facility Status: ACTIVE
Expiration Date: 03/31/2021

Name: STATER BROS. MARKETS 012

STATER BROS. MARKETS 012 (Continued) **S109117885**

Address: 571 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0011494
Owner: STATER BROS. MARKETS
Permit Number: PT0019897
Permit Category: HAZMAT HANDLER GENERAL ACT.(NB)
Facility Status: FEE EXEMPT
Expiration Date: 03/31/2014

CERS:
Name: STATER BROS. MARKETS 012
Address: 571 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Site ID: 71257
CERS ID: 10053013
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-17-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-08-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Routine inspection
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 71257
Facility Name: Stater Bros. Markets 012
Env Int Type Code: HWG
Program ID: 10053013
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 34.105621
Longitude: -117.360069

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Chris Ramirez
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

STATER BROS. MARKETS 012 (Continued) **S109117885**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Stater Bros. Markets
Entity Title:	Not reported
Affiliation Address:	PO BOX 150
Affiliation City:	SAN BERNARDINO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92402
Affiliation Phone:	(909) 733-5000
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	571 E. Foothill Blvd.
Affiliation City:	Rialto
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92376
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Stater Bros. Markets 012
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(909) 733-5000
Affiliation Type Desc:	Parent Corporation
Entity Name:	Stater Bros. Markets
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401
Affiliation Type Desc:	Environmental Contact
Entity Name:	Chris Ramirez
Entity Title:	Not reported
Affiliation Address:	P.O. Box 150
Affiliation City:	SAN BERNARDINO

STATER BROS. MARKETS 012 (Continued) **S109117885**

Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92402
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Chris Ramirez
Entity Title:	Supervisor of Support Services
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Stater Bros. Markets
Entity Title:	Not reported
Affiliation Address:	P.O. Box 150
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92402
Affiliation Phone:	(909) 733-5000

HWTS:

Name:	STATER BROS MARKETS # 12 SO. RIALTO
Address:	571 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923765223
EPA ID:	CAL000340278
Inactive Date:	Not reported
Create Date:	02/03/2009
Last Act Date:	09/17/2020
Mailing Name:	Not reported
Mailing Address:	PO BOX 150
Mailing Address 2:	Not reported
Mailing City,State,Zip:	SAN BERNARDINO, CA 924020000
Owner Name:	STATER BROS MARKETS
Owner Address:	301 S TIPPECANOE AVE
Owner Address 2:	Not reported
Owner City,State,Zip:	SAN BERNARDINO, CA 924080121
Contact Name:	JAMIE JACOBSON
Contact Address:	301 S. TIPPECANOE AVE.
Contact Address 2:	Not reported
City,State,Zip:	SAN BERNARDINO, CA 92408

NAICS:

EPA ID:	CAL000340278
Create Date:	2009-02-03 11:17:37.527
NAICS Code:	45291
NAICS Description:	Warehouse Clubs and Superstores
Issued EPA ID Date:	2009-02-03 11:17:37.51000
Inactive Date:	Not reported
Facility Name:	STATER BROS MARKETS # 12 SO. RIALTO
Facility Address:	571 E FOOTHILL BLVD

STATER BROS. MARKETS 012 (Continued) **S109117885**

Facility Address 2: Not reported
Facility City: RIALTO
Facility County: Not reported
Facility State: CA
Facility Zip: 923765223

G39 **PEP BOYS #790** **San Bern. Co. Permit** **S102041452**
SSW **505 E FOOTHILL BLVD** **N/A**
< 1/8 **RIALTO, CA 92376**
0.095 mi.
503 ft. **Site 1 of 3 in cluster G**

Relative:
Lower

Actual:
1235 ft.

San Bern. Co. Permit:
Name: PEP BOYS #790
Address: 505 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0005275
Owner: PEP BOYS CORPORATION
Permit Number: PT0005910
Permit Category: LARGE QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 09/30/2021

Name: PEP BOYS #790
Address: 505 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0005275
Owner: PEP BOYS CORPORATION
Permit Number: PT0005911
Permit Category: HAZARDOUS MATERIALS 4-10 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 09/30/2021

Name: PEP BOYS #790
Address: 505 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0005275
Owner: PEP BOYS CORPORATION
Permit Number: PT0005909
Permit Category: CE ANNUAL FEE
Facility Status: INACTIVE
Expiration Date: 09/30/2007

G40 **PEP BOYS STORE#0790** **RCRA NonGen / NLR** **1024875580**
SSW **505 E FOOTHILL BLVD** **CAL913263326**
< 1/8 **RIALTO, CA 92376**
0.095 mi.
503 ft. **Site 2 of 3 in cluster G**

Relative: **Lower**

Actual: **1235 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		1991-11-22 00:00:00.0
Handler Name:	PEP BOYS STORE#0790	
Handler Address:		505 E FOOTHILL BLVD
Handler City,State,Zip:		RIALTO, CA 92376-0000
EPA ID:		CAL913263326
Contact Name:		ALANA PERSAD
Contact Address:		PEP BOYS -MANNY, MOE & JACK
Contact City,State,Zip:		PHILADELPHIA, PA 19132
Contact Telephone:		215-430-9226
Contact Fax:		215-430-4639
Contact Email:		ALANA_PERSAD@PEPBOYS.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		3111 W ALLEGHENY AVE
Mailing City,State,Zip:		PHILADELPHIA, PA 19132-1116
Owner Name:		THE PEP BOYS MANNY MOE & JACK OF CA
Owner Type:		Other
Operator Name:		ALANA PERSAD
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes
Universal Waste Destination Facility:		Yes
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

PEP BOYS STORE#0790 (Continued) **1024875580**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-07 19:39:05.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	THE PEP BOYS MANNY MOE & JACK OF CA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3111 WEST ALLEGHENY AVE
Owner/Operator City,State,Zip:	PHILADELPHIA, PA 19132-0000
Owner/Operator Telephone:	215-430-9226
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	ALANA PERSAD
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	PEP BOYS -MANNY, MOE & JACK
Owner/Operator City,State,Zip:	PHILADELPHIA, PA 19132
Owner/Operator Telephone:	215-430-9226
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

PEP BOYS STORE#0790 (Continued) **1024875580**

Historic Generators:
- Receive Date: 1991-11-22 00:00:00.0
- Handler Name: PEP BOYS STORE#0790
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 811111
- NAICS Description: GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

G41 **PEP BOYS STORE#0790** **CERS HAZ WASTE** **S113164153**
SSW **505 E FOOTHILL BLVD** **HAZNET** **N/A**
< 1/8 **RIALTO, CA 92376** **CERS**
0.095 mi. **HWTS**
503 ft. **Site 3 of 3 in cluster G**

Relative: **Lower**

Actual: **1235 ft.**

CERS HAZ WASTE:
- Name: PEP BOYS #790
- Address: 505 E FOOTHILL BLVD
- City,State,Zip: RIALTO, CA 92376
- Site ID: 56157
- CERS ID: 10043032
- CERS Description: Hazardous Waste Generator

HAZNET:
- Name: PEP BOYS STORE#0790
- Address: 505 E FOOTHILL BLVD
- Address 2: Not reported
- City,State,Zip: RIALTO, CA 191321116
- Contact: ALANA PERSAD
- Telephone: 2154309226
- Mailing Name: Not reported
- Mailing Address: 3111 W ALLEGHENY AVE

- Year: 2019
- Gepaid: CAL913263326
- TSD EPA ID: AZR000515924
- CA Waste Code: 352 - Other organic solids
- Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

PEP BOYS STORE#0790 (Continued) **S113164153**

Tons:	0.35000
Year:	2019
Gepaid:	CAL913263326
TSD EPA ID:	CAT080025711
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.36279
Year:	2019
Gepaid:	CAL913263326
TSD EPA ID:	CAT080013352
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.22101
Year:	2019
Gepaid:	CAL913263326
TSD EPA ID:	AZR000521146
CA Waste Code:	352 - Other organic solids
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.66000
Year:	2019
Gepaid:	CAL913263326
TSD EPA ID:	AZR000521146
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.13250
Year:	2018
Gepaid:	CAL913263326
TSD EPA ID:	CAT080025711
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.50040
Year:	2018
Gepaid:	CAL913263326
TSD EPA ID:	CAT080013352
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.12510
Year:	2018
Gepaid:	CAL913263326
TSD EPA ID:	AZR000515924
CA Waste Code:	352 - Other organic solids
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.09500

PEP BOYS STORE#0790 (Continued) **S113164153**

Year:	2018
Gepaid:	CAL913263326
TSD EPA ID:	AZR000515924
CA Waste Code:	181 - Other inorganic solid waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.08500

Year:	2018
Gepaid:	CAL913263326
TSD EPA ID:	CAT080025711
CA Waste Code:	222 - Oil/water separation sludge
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.25020

Click this hyperlink while viewing on your computer to access
61 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	2012
Gen EPA ID:	CAL913263326
Shipment Date:	20121203
Creation Date:	2/14/2013 22:15:30
Receipt Date:	20121207
Manifest ID:	010781527JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	CROSBY & OVERTON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121102
Creation Date:	3/22/2013 22:15:24
Receipt Date:	20121112
Manifest ID:	010781199JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID:	NVR000001925
Trans Name:	THERMO FLUIDS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.168
Waste Quantity:	40
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20121102
Creation Date:	3/22/2013 22:15:24
Receipt Date:	20121112
Manifest ID:	010781199JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000001925
Trans Name:	THERMO FLUIDS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.3753
Waste Quantity:	90
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20120810
Creation Date:	9/27/2012 22:15:12
Receipt Date:	20120810
Manifest ID:	010439470JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981696420
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

PEP BOYS STORE#0790 (Continued) **S113164153**

Quantity Tons:	0.252
Waste Quantity:	60
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20120810
Creation Date:	9/27/2012 22:15:12
Receipt Date:	20120810
Manifest ID:	010439486JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981696420
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.40866
Waste Quantity:	98
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20120712
Creation Date:	2/15/2013 16:03:57
Receipt Date:	20120724
Manifest ID:	005525440FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	D001
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.0105
Waste Quantity:	21
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 5:	Not reported
Shipment Date:	20120712
Creation Date:	2/15/2013 16:03:57
Receipt Date:	20120724
Manifest ID:	005525440FLE
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	INR000110197
Trans Name:	STERICYCLE INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	561 - Not reported
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.001
Waste Quantity:	2
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20120524
Creation Date:	5/28/2013 22:15:05
Receipt Date:	20120601
Manifest ID:	009734680JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000082925
Trans Name:	ROADRUNNER GLYCOL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.231
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20120524
Creation Date:	8/1/2012 22:15:22
Receipt Date:	20120525
Manifest ID:	009734684JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.3116
Waste Quantity:	82
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20120420
Creation Date:	6/12/2012 20:30:16
Receipt Date:	20120423
Manifest ID:	009734275JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.532
Waste Quantity:	140
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2016
Gen EPA ID:	CAL913263326

Shipment Date:	20151229
Creation Date:	6/6/2016 18:31:19
Receipt Date:	20160104
Manifest ID:	004860731SKS
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO / KERDOON

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.72975
Waste Quantity:	175
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150520
Creation Date:	11/5/2015 22:15:08
Receipt Date:	20150526
Manifest ID:	013086766JJK
Trans EPA ID:	CAT080012800
Trans Name:	HAZ MAT TRANS INC
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150323
Creation Date:	6/26/2015 22:15:35
Receipt Date:	20150330
Manifest ID:	013387600JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	CROSBY & OVERTON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.015

PEP BOYS STORE#0790 (Continued) **S113164153**

Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150323
Creation Date:	9/22/2015 22:15:09
Receipt Date:	20150330
Manifest ID:	014192758JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO/KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.72975
Waste Quantity:	175
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2014
Gen EPA ID:	CAL913263326
Shipment Date:	20141107
Creation Date:	1/8/2015 22:15:01
Receipt Date:	20141110
Manifest ID:	013385639JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.72975
Waste Quantity:	175
Quantity Unit:	G
Additional Code 1:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140428
Creation Date:	7/12/2014 22:15:17
Receipt Date:	20140505
Manifest ID:	012261990JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.1676
Waste Quantity:	280
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140407
Creation Date:	6/18/2014 22:14:38
Receipt Date:	20140410
Manifest ID:	012261983JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.3761
Waste Quantity:	330
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20140110
Creation Date:	3/12/2014 22:15:20

PEP BOYS STORE#0790 (Continued) **S113164153**

Receipt Date:	20140116
Manifest ID:	012263917JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.6255
Waste Quantity:	150
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1999
Gen EPA ID:	CAL913263326
Shipment Date:	19990928
Creation Date:	11/18/1999 0:00:00
Receipt Date:	19990928
Manifest ID:	99127093
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.525
Waste Quantity:	125
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990901
Creation Date:	10/26/1999 0:00:00
Receipt Date:	19990901
Manifest ID:	99242504
Trans EPA ID:	CAD028277036
Trans Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.3127
Waste Quantity:	75
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990728
Creation Date:	9/21/1999 0:00:00
Receipt Date:	19990728
Manifest ID:	99128973
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	1.47
Waste Quantity:	350
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990409
Creation Date:	5/27/1999 0:00:00
Receipt Date:	19990409
Manifest ID:	98847452
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station

PEP BOYS STORE#0790 (Continued) **S113164153**

Quantity Tons:	0.147
Waste Quantity:	35
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990301
Creation Date:	4/20/1999 0:00:00
Receipt Date:	19990301
Manifest ID:	98843805
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.525
Waste Quantity:	125
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2006
Gen EPA ID:	CAL913263326
Shipment Date:	20061108
Creation Date:	3/30/2007 13:33:47
Receipt Date:	20061116
Manifest ID:	000412735JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000037432
Trans Name:	EV-CON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.924
Waste Quantity:	220
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20061108
Creation Date:	3/30/2007 13:32:34
Receipt Date:	20061110
Manifest ID:	000412671JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.893
Waste Quantity:	235
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20061011
Creation Date:	4/19/2007 18:30:58
Receipt Date:	20061012
Manifest ID:	000412503JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000037432
Trans Name:	EV-CON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	1.0416
Waste Quantity:	248
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20061011
Creation Date:	3/30/2007 13:33:40
Receipt Date:	20061018
Manifest ID:	000412414JJK

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.722
Waste Quantity:	190
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060919
Creation Date:	3/30/2007 13:31:11
Receipt Date:	20060921
Manifest ID:	000412270JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.817
Waste Quantity:	215
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060829
Creation Date:	10/25/2006 18:31:09
Receipt Date:	20060908
Manifest ID:	24927987
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	CAL000253361
Trans 2 Name:	ALL PHASE ENVIRONMENTAL
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	CAD099452708

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	4.845
Waste Quantity:	1275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060823
Creation Date:	10/5/2006 18:32:35
Receipt Date:	20060829
Manifest ID:	24927750
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	CAL000253361
Trans 2 Name:	ALL PHASE ENVIRONMENTAL
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	CAD099452708
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.9044
Waste Quantity:	238
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060727
Creation Date:	9/28/2006 18:30:24
Receipt Date:	20060802
Manifest ID:	24927552
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000037432
Trans Name:	EV CON
TSDF Alt EPA ID:	NVR000037432
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.9828
Waste Quantity:	234
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060710
Creation Date:	9/13/2006 18:31:19
Receipt Date:	20060711
Manifest ID:	24927204
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	CAL000253361
Trans 2 Name:	ALL PHASE ENVIRONMENTAL
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	CAD099452708
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.912
Waste Quantity:	240
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20060612
Creation Date:	9/14/2006 18:36:39
Receipt Date:	20060614
Manifest ID:	24923361
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000037432
Trans Name:	EV CON
TSDF Alt EPA ID:	NVR000037432
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.777
Waste Quantity:	185
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2017
Gen EPA ID:	CAL913263326
Shipment Date:	20171219

PEP BOYS STORE#0790 (Continued) **S113164153**

Creation Date:	8/3/2018 18:30:42
Receipt Date:	20171227
Manifest ID:	018165301JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO / KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.05004
Waste Quantity:	12
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171219
Creation Date:	10/16/2018 18:30:53
Receipt Date:	20171226
Manifest ID:	018165300JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEM INC
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20171214
Creation Date:	8/10/2018 18:30:24
Receipt Date:	20171218
Manifest ID:	018165290JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	1.0008
Waste Quantity:	240
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20171006
Creation Date:	7/17/2018 18:30:34
Receipt Date:	20171012
Manifest ID:	017794492JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEM INC
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.06
Waste Quantity:	120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170902
Creation Date:	5/30/2018 18:33:04
Receipt Date:	20170912
Manifest ID:	017794565JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO / KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid

PEP BOYS STORE#0790 (Continued) **S113164153**

	Regeneration, Organics Recovery Ect
Quantity Tons:	0.06255
Waste Quantity:	15
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170902
Creation Date:	11/1/2018 18:30:30
Receipt Date:	20170915
Manifest ID:	017794572JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEM INC
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20170315
Creation Date:	5/11/2018 18:34:27
Receipt Date:	20170327
Manifest ID:	016857556JJK
Trans EPA ID:	CAD028277036
Trans Name:	ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEM INC
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA YES LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.03
Waste Quantity:	60
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2013
Gen EPA ID:	CAL913263326
Shipment Date:	20130906
Creation Date:	10/29/2013 22:15:09
Receipt Date:	20130909
Manifest ID:	011682386JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.6255
Waste Quantity:	150
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20130523
Creation Date:	8/10/2013 22:15:09
Receipt Date:	20130531
Manifest ID:	011275516JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.07923
Waste Quantity:	19
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Shipment Date:	20130417
Creation Date:	6/18/2013 22:15:15
Receipt Date:	20130418
Manifest ID:	011273846JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.21
Waste Quantity:	50
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20130417
Creation Date:	6/18/2013 22:15:15
Receipt Date:	20130418
Manifest ID:	011273846JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.7506
Waste Quantity:	180
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20130212
Creation Date:	4/17/2013 22:15:49
Receipt Date:	20130213
Manifest ID:	010782173JJK
Trans EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO-KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.2352
Waste Quantity:	56
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1993
Gen EPA ID:	CAL913263326
Shipment Date:	19930202
Creation Date:	9/6/1995 0:00:00
Receipt Date:	19930203
Manifest ID:	92317783
Trans EPA ID:	CAT080029770
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD981696420
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	5.004
Waste Quantity:	1200
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1997
Gen EPA ID:	CAL913263326
Shipment Date:	19970730
Creation Date:	12/11/1997 0:00:00
Receipt Date:	19970801
Manifest ID:	96817957
Trans EPA ID:	CAD028277036
Trans Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	1.0425
Waste Quantity:	250
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19970331
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19970331
Manifest ID:	96785411
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.5212
Waste Quantity:	125
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2000
Gen EPA ID:	CAL913263326

Shipment Date:	20000608
Creation Date:	7/12/2000 0:00:00
Receipt Date:	20000608
Manifest ID:	20235363
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.84
Waste Quantity:	200
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000420
Creation Date:	6/7/2000 0:00:00
Receipt Date:	20000420
Manifest ID:	20095272
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.462
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000202
Creation Date:	3/22/2000 0:00:00
Receipt Date:	20000202
Manifest ID:	99363980
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.462
Waste Quantity:	110
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1996
Gen EPA ID:	CAL913263326
Shipment Date:	19961120
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19961120
Manifest ID:	96344159
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.7506
Waste Quantity:	180
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960429
Creation Date:	10/29/1996 0:00:00
Receipt Date:	19960429
Manifest ID:	95807729
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	4.17
Waste Quantity:	1000
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Info:

Year:	1998
Gen EPA ID:	CAL913263326
Shipment Date:	19981211
Creation Date:	1/28/1999 0:00:00
Receipt Date:	19981211
Manifest ID:	98511797
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.525
Waste Quantity:	125
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980914
Creation Date:	11/19/1998 0:00:00
Receipt Date:	19980914
Manifest ID:	98500965
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.252
Waste Quantity:	60
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980810
Creation Date:	10/20/1998 0:00:00
Receipt Date:	19980813
Manifest ID:	96347455
Trans EPA ID:	CAD028277036

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	1.0425
Waste Quantity:	250
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19980422
Creation Date:	6/26/1998 0:00:00
Receipt Date:	19980423
Manifest ID:	96832392
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.5838
Waste Quantity:	140
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19980128
Creation Date:	4/16/1998 0:00:00
Receipt Date:	19980128
Manifest ID:	97231320
Trans EPA ID:	CAD028277036
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	133 - Aqueous solution with 10% or more total organic residues
RCRA Code:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Meth Code:	R01 - Recycler
Quantity Tons:	1.0008
Waste Quantity:	240
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2011
Gen EPA ID:	CAL913263326
Shipment Date:	20111214
Creation Date:	3/13/2012 20:30:40
Receipt Date:	20111214
Manifest ID:	009288764JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.6232
Waste Quantity:	164
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111209
Creation Date:	3/13/2012 20:30:40
Receipt Date:	20111214
Manifest ID:	009288868JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9462
Waste Quantity:	249

PEP BOYS STORE#0790 (Continued) **S113164153**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111209
Creation Date:	4/26/2012 20:30:19
Receipt Date:	20111215
Manifest ID:	009288845JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000082925
Trans Name:	ROADRUNNER GLYCOL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.294
Waste Quantity:	70
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111111
Creation Date:	1/27/2012 20:30:28
Receipt Date:	20111114
Manifest ID:	009288390JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.2352
Waste Quantity:	56
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20111111

PEP BOYS STORE#0790 (Continued) **S113164153**

Creation Date:	2/15/2012 20:30:28
Receipt Date:	20111117
Manifest ID:	009288411JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	1.0184
Waste Quantity:	268
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20111014
Creation Date:	1/6/2012 18:30:33
Receipt Date:	20111019
Manifest ID:	009287916JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.3192
Waste Quantity:	76
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20111014
Creation Date:	1/12/2012 18:30:51
Receipt Date:	20111020
Manifest ID:	009287979JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9234
Waste Quantity:	243
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20110926
Creation Date:	3/22/2012 20:30:11
Receipt Date:	20110927
Manifest ID:	009287701JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZD983481813
Trans Name:	WASTE MANAGEMENT-BUTTERFIELD STATION FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	5.092
Waste Quantity:	1340
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20110909
Creation Date:	12/9/2011 18:30:43
Receipt Date:	20110913
Manifest ID:	009287335JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect

PEP BOYS STORE#0790 (Continued) **S113164153**

Quantity Tons:	0.3864
Waste Quantity:	92
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20110909
Creation Date:	12/9/2011 18:30:36
Receipt Date:	20110910
Manifest ID:	009287363JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	1.0222
Waste Quantity:	269
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2008
Gen EPA ID:	CAL913263326
Shipment Date:	20081205
Creation Date:	2/2/2009 18:30:18
Receipt Date:	20081208
Manifest ID:	005526269JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9728
Waste Quantity:	256
Quantity Unit:	G

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20081205
Creation Date:	2/4/2009 18:30:27
Receipt Date:	20081213
Manifest ID:	005526194JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	1.0122
Waste Quantity:	241
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20081106
Creation Date:	1/9/2009 18:30:34
Receipt Date:	20081110
Manifest ID:	005525803JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.315
Waste Quantity:	75
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20081003

PEP BOYS STORE#0790 (Continued) **S113164153**

Creation Date:	11/18/2008 18:30:24
Receipt Date:	20081006
Manifest ID:	004720819JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.3906
Waste Quantity:	93
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20081003
Creation Date:	11/18/2008 18:30:24
Receipt Date:	20081007
Manifest ID:	004720834JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9652
Waste Quantity:	254
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20080912
Creation Date:	11/3/2008 18:30:32
Receipt Date:	20080916
Manifest ID:	004720541JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.2128
Waste Quantity:	56
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080912
Creation Date:	11/3/2008 18:30:32
Receipt Date:	20080913
Manifest ID:	004720528JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.1386
Waste Quantity:	33
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080827
Creation Date:	10/13/2008 18:30:47
Receipt Date:	20080830
Manifest ID:	004715682JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No

PEP BOYS STORE#0790 (Continued) **S113164153**

	Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	4.845
Waste Quantity:	1275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080809
Creation Date:	10/10/2008 18:30:18
Receipt Date:	20080811
Manifest ID:	004508849JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.2142
Waste Quantity:	51
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080809
Creation Date:	10/10/2008 18:30:08
Receipt Date:	20080811
Manifest ID:	004508914JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.8132
Waste Quantity:	214
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2015
Gen EPA ID:	CAL913263326
Shipment Date:	20151229
Creation Date:	6/6/2016 18:31:19
Receipt Date:	20160104
Manifest ID:	004860731SKS
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO / KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.72975
Waste Quantity:	175
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20150520
Creation Date:	11/5/2015 22:15:08
Receipt Date:	20150526
Manifest ID:	013086766JJK
Trans EPA ID:	CAT080012800
Trans Name:	HAZ MAT TRANS INC
Trans 2 EPA ID:	CAR000175422
Trans 2 Name:	WORLDWIDE RECOVERY SYSTEMS
TSDF EPA ID:	AZR000515924
Trans Name:	YUMA ENVIRONMENTAL SERVICES
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Shipment Date:	20150323
Creation Date:	9/22/2015 22:15:09
Receipt Date:	20150330
Manifest ID:	014192758JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO/KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.72975
Waste Quantity:	175
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20150323
Creation Date:	6/26/2015 22:15:35
Receipt Date:	20150330
Manifest ID:	013387600JJK
Trans EPA ID:	CAL000381082
Trans Name:	THERMO FLUIDS
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD028409019
Trans Name:	CROSBY & OVERTON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.015
Waste Quantity:	30
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2010
Gen EPA ID:	CAL913263326

Shipment Date:	20101203
Creation Date:	2/8/2011 18:30:24
Receipt Date:	20101213

PEP BOYS STORE#0790 (Continued) **S113164153**

Manifest ID:	007747899JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.378
Waste Quantity:	90
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101203
Creation Date:	2/19/2011 18:30:08
Receipt Date:	20101209
Manifest ID:	007747936JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.8322
Waste Quantity:	219
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101124
Creation Date:	10/17/2011 11:24:26
Receipt Date:	20101213
Manifest ID:	007718478JJK
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	232 - Pesticides and other waste associated with pesticide production
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101124
Creation Date:	10/17/2011 11:24:26
Receipt Date:	20101213
Manifest ID:	007718478JJK
Trans EPA ID:	MNS000110924
Trans Name:	STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID:	OKD981588791
Trans 2 Name:	TRIAD TRANSPORT INC
TSDF EPA ID:	OHD083377010
Trans Name:	ENVIRONMENTAL ENTERPRISES INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D001
Meth Code:	H050 - Energy Recovery At This Site--Use As Fuel(Includes On-Site Fuel Blending)
Quantity Tons:	0.002
Waste Quantity:	4
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101112
Creation Date:	1/12/2011 18:30:17
Receipt Date:	20101117
Manifest ID:	007747487JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.3696

PEP BOYS STORE#0790 (Continued) **S113164153**

Waste Quantity:	88
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101112
Creation Date:	1/12/2011 18:30:38
Receipt Date:	20101118
Manifest ID:	007747503JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9044
Waste Quantity:	238
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20101109
Creation Date:	8/30/2011 11:28:08
Receipt Date:	20101110
Manifest ID:	007747287JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZD983481813
Trans Name:	WASTE MANAGEMENT-BUTTERFIELD STATION FACILITY
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	5.4627
Waste Quantity:	1310
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Shipment Date:	20101008
Creation Date:	12/30/2010 18:30:08
Receipt Date:	20101013
Manifest ID:	007747039JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.8816
Waste Quantity:	232
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20101008
Creation Date:	1/3/2011 18:30:18
Receipt Date:	20101014
Manifest ID:	007747019JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.378
Waste Quantity:	90
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20100910
Creation Date:	10/26/2010 18:30:22
Receipt Date:	20100914
Manifest ID:	007746736JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID:	AZR000003681
Trans Name:	THERMO FLUIDS INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons:	0.9424
Waste Quantity:	248
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2009
Gen EPA ID:	CAL913263326
Shipment Date:	20091202
Creation Date:	10/8/2010 18:30:48
Receipt Date:	20091204
Manifest ID:	005964819JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.42
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091202
Creation Date:	2/3/2010 18:30:35
Receipt Date:	20091203
Manifest ID:	005964850JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9158
Waste Quantity:	241
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091105
Creation Date:	1/11/2010 18:30:07
Receipt Date:	20091110
Manifest ID:	005963999JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.9614
Waste Quantity:	253
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091105
Creation Date:	1/11/2010 18:30:07
Receipt Date:	20091107
Manifest ID:	005963977JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.3696
Waste Quantity:	88
Quantity Unit:	G

PEP BOYS STORE#0790 (Continued) **S113164153**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20091013
Creation Date:	12/8/2009 18:30:38
Receipt Date:	20091015
Manifest ID:	005963718JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.3822
Waste Quantity:	91
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20090904
Creation Date:	10/29/2009 18:30:26
Receipt Date:	20090911
Manifest ID:	005963098JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.2856
Waste Quantity:	68
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20090904

PEP BOYS STORE#0790 (Continued) **S113164153**

Creation Date:	11/3/2009 18:30:08
Receipt Date:	20090911
Manifest ID:	005963138JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080025711
Trans Name:	ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.7524
Waste Quantity:	198
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20090814
Creation Date:	10/12/2009 18:30:19
Receipt Date:	20090820
Manifest ID:	005279475JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080013352
Trans Name:	DEMENNO- KERDOON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	0.9702
Waste Quantity:	231
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20090814
Creation Date:	9/25/2009 18:30:28
Receipt Date:	20090815
Manifest ID:	005279493JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF EPA ID: CAT080025711
Trans Name: ADVANCED ENVIRONMENTAL INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 221 - Waste oil and mixed oil
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.9386
Waste Quantity: 247
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20090710
Creation Date: 8/20/2009 18:30:09
Receipt Date: 20090713
Manifest ID: 005278694JJK
Trans EPA ID: CAL000253361
Trans Name: ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT080013352
Trans Name: DEMENNO- KERDOON INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons: 0.3612
Waste Quantity: 86
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2007
Gen EPA ID: CAL913263326

Shipment Date: 20071207
Creation Date: 3/5/2008 18:30:27
Receipt Date: 20071211
Manifest ID: 003463335JJK
Trans EPA ID: CAL000253361
Trans Name: ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD099452708
Trans Name: INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID: Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.0032
Waste Quantity:	264
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20071116
Creation Date:	2/4/2008 18:30:26
Receipt Date:	20071116
Manifest ID:	003462958JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.0222
Waste Quantity:	269
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20070926
Creation Date:	1/9/2008 18:30:21
Receipt Date:	20071002
Manifest ID:	002367725JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	4.826
Waste Quantity:	1270

PEP BOYS STORE#0790 (Continued) **S113164153**

Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20070921
Creation Date:	12/28/2007 18:31:00
Receipt Date:	20070922
Manifest ID:	002367768JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.029
Waste Quantity:	245
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20070921
Creation Date:	12/28/2007 18:31:14
Receipt Date:	20070925
Manifest ID:	002367791JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.007
Waste Quantity:	265
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Shipment Date:	20070810
Creation Date:	2/5/2008 18:30:19
Receipt Date:	20070817
Manifest ID:	002367251JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.0836
Waste Quantity:	258
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20070810
Creation Date:	11/5/2007 18:30:58
Receipt Date:	20070813
Manifest ID:	002367241JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.0184
Waste Quantity:	268
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20070615
Creation Date:	10/22/2007 18:30:08
Receipt Date:	20070619
Manifest ID:	002366595JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.0146
Waste Quantity:	267
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20070615
Creation Date:	10/17/2011 11:25:49
Receipt Date:	20070623
Manifest ID:	002366586JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD099452708
Trans Name:	INDUSTRIAL SERVICE OIL
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported
Meth Code:	H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Quantity Tons:	1.155
Waste Quantity:	275
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20070512
Creation Date:	10/23/2007 18:30:15
Receipt Date:	20070517
Manifest ID:	002365715JJK
Trans EPA ID:	CAL000253361
Trans Name:	ALL PHASE ENVIRONMENTAL
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	NVR000037432
Trans Name:	EV-CON
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	135 - Unspecified aqueous solution
RCRA Code:	Not reported

PEP BOYS STORE#0790 (Continued) **S113164153**

Meth Code:	- Not reported
Quantity Tons:	1.05
Waste Quantity:	250
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CERS:

Name:	PEP BOYS #790
Address:	505 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	56157
CERS ID:	10043032
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	56157
Site Name:	PEP BOYS #790
Violation Date:	12-04-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 01/16/2019. OBSERVATION: The inventory observed at the time of inspection, is not reflective of what was submitteed va CERS. CORRECTIVE ACTION: Update the amount of used oil filters that was reported via CERS.
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	56157
Site Name:	PEP BOYS #790
Violation Date:	08-28-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 08/28/2017. NON INSPECTION RELATED VIOLATION BP update submitted to "CERS" on 8/28/2017. CB
Violation Division:	San Bernardino County Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	56157
Site Name:	PEP BOYS #790
Violation Date:	12-04-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

PEP BOYS STORE#0790 (Continued) **S113164153**

Violation Notes: Returned to compliance on 01/16/2019. OBSERVATION: At the time of inspection it was observed that the Emergency Contingency Plan submitted via CERS contains the incorrect CUPA notification number. CORRECTIVE ACTION: Update the CUPA phone number in the Emergency Contingency plan to (909) 384-8425 and resubmit via CERS.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-08-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Routine inspection
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-08-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Routine inspection
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-28-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: CERS ENFORCEMENT PROJECT - ENTER VIOLATION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-04-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-04-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Coordinates:

PEP BOYS STORE#0790 (Continued) **S113164153**

Site ID:	56157
Facility Name:	PEP BOYS #790
Env Int Type Code:	HWG
Program ID:	10043032
Coord Name:	Not reported
Ref Point Type Desc:	Unknown
Latitude:	34.105534
Longitude:	-117.361176

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401

Affiliation Type Desc:	Document Preparer
Entity Name:	David Abraham
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	3111 W Allegheny Ave, Attn: Environmental Department
Affiliation City:	Philadelphia
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92376
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	David Abraham
Entity Title:	California EHS Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	Pep Boys Corporation
Entity Title:	Not reported
Affiliation Address:	3111 W Allegheny Ave, Attn: Environmental Department
Affiliation City:	Philadelphia
Affiliation State:	PA
Affiliation Country:	United States

PEP BOYS STORE#0790 (Continued) **S113164153**

Affiliation Zip:	19132
Affiliation Phone:	(215) 430-9095
Affiliation Type Desc:	Parent Corporation
Entity Name:	Pep Boys- Manny, Moe & Jack
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Property Owner
Entity Name:	Mei-Hwa Chen
Entity Title:	Not reported
Affiliation Address:	9 Stone Pine Drive
Affiliation City:	Newport Coast
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92657
Affiliation Phone:	(714) 962-6386
Affiliation Type Desc:	Environmental Contact
Entity Name:	David Abraham
Entity Title:	Not reported
Affiliation Address:	3111 W Allegheny Ave, Attn: Environmental Department
Affiliation City:	Philadelphia
Affiliation State:	PA
Affiliation Country:	Not reported
Affiliation Zip:	19132
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Pep Boys Corporation
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(215) 430-9226

HWTS:

Name:	PEP BOYS STORE#0790
Address:	505 E FOOTHILL BLVD
Address 2:	Not reported
City,State,Zip:	RIALTO, CA 923760000
EPA ID:	CAL913263326
Inactive Date:	Not reported
Create Date:	11/22/1991
Last Act Date:	12/17/2020
Mailing Name:	Not reported
Mailing Address:	3111 W ALLEGHENY AVE
Mailing Address 2:	Not reported
Mailing City,State,Zip:	PHILADELPHIA, PA 191321116

PEP BOYS STORE#0790 (Continued) **S113164153**

Owner Name:	THE PEP BOYS MANNY MOE & JACK OF CA
Owner Address:	3111 WEST ALLEGHENY AVE
Owner Address 2:	ENVIRONMENTAL DEPT
Owner City,State,Zip:	PHILADELPHIA, PA 191320000
Contact Name:	ANGELA BANKS
Contact Address:	3111 W ALLEGHENY AVE
Contact Address 2:	Not reported
City,State,Zip:	PHILADELPHIA, PA 191321116

NAICS:

EPA ID:	CAL913263326
Create Date:	2002-03-14 16:36:30.000
NAICS Code:	811111
NAICS Description:	General Automotive Repair
Issued EPA ID Date:	1991-11-22 00:00:00
Inactive Date:	Not reported
Facility Name:	PEP BOYS STORE#0790
Facility Address:	505 E FOOTHILL BLVD
Facility Address 2:	Not reported
Facility City:	RIALTO
Facility County:	Not reported
Facility State:	CA
Facility Zip:	923760000

E42 **SHURTE JOHN R** **EDR Hist Auto** **1020872865**
SE **681 E FOOTHILL** **N/A**
< 1/8 **RIALTO, CA 92376**
0.098 mi.
517 ft. **Site 10 of 10 in cluster E**

Relative: EDR Hist Auto
Lower

Actual:
1229 ft.

Year:	Name:	Type:
1969	SHURTE JOHN R	Gasoline Service Stations
1970	SHURTE JOHN R	Gasoline Service Stations
1971	SHURTE JOHN R	Gasoline Service Stations
1972	SHURTE JOHN R	Gasoline Service Stations
1975	RAGEH MOHAMED I	Gasoline Service Stations
1976	STEEL WAYNE AUTO MOTIVE REPAIR	General Automotive Repair Shops
1977	STEEL WAYNE AUTOMOTIVE REPAIR	General Automotive Repair Shops
1978	STEEL WAYNE AUTOMOTIVE REPAIR	General Automotive Repair Shops

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43 **AUTOZONE #5626** **CERS HAZ WASTE** **S109254288**
ESE **702 E FOOTHILL BLVD** **San Bern. Co. Permit** **N/A**
< 1/8 **RIALTO, CA 92376** **CERS**
0.119 mi.
627 ft.

Relative: CERS HAZ WASTE:
Lower

Actual:
1230 ft.

Name:	AUTOZONE #5626
Address:	702 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	387257
CERS ID:	10139929
CERS Description:	Hazardous Waste Generator

AUTOZONE #5626 (Continued) **S109254288**

San Bern. Co. Permit:
Name: AUTOZONE #5626
Address: 702 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0000003
Owner: AutoZone Stores Inc
Permit Number: PT0018223
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 12/31/2020

Name: AUTOZONE #5626
Address: 702 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0000003
Owner: AutoZone Stores Inc
Permit Number: PT0018222
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR
Facility Status: ACTIVE
Expiration Date: 12/31/2020

Name: AUTOZONE #5626
Address: 702 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Region: SAN BERNARDINO
Facility ID: FA0000003
Owner: AutoZone Stores Inc
Permit Number: PT0000772
Permit Category: HAZMAT HANDLER - USED OIL COLLECTION CENTERS
Facility Status: INACTIVE
Expiration Date: 12/31/2006

CERS:
Name: AUTOZONE #5626
Address: 702 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92376
Site ID: 387257
CERS ID: 10139929
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 387257
Site Name: AutoZone #5626
Violation Date: 12-10-2014
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 12/28/2014. Failure to note accumulation start date on labels (CCR 66262.34(f)(2)) COMPLIANCE DOCUMENTATION RECEIVED ON 12/28/2014. CB
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 387257

AUTOZONE #5626 (Continued) **S109254288**

Site Name: AutoZone #5626
Violation Date: 12-10-2014
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description: Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 12/15/2014. SITE MAP WAS LACKING AND USED OIL STORAGE CAPACITY APPEARS TO BE INCORRECT ON THE FACILITY BUSINESS PLAN.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 387257
Site Name: AutoZone #5626
Violation Date: 12-10-2014
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 12/28/2014. Failure to complete hazardous waste labels (CCR 66262.34(f)(3)) COMPLIANCE DOCUMENTATION RECEIVED ON 12/28/2014. CB
Violation Division: San Bernardino County Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-23-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-23-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-10-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: REGULAR INSPECTION.
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-10-2014

AUTOZONE #5626 (Continued) **S109254288**

Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: REGULAR INSPECTION.
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-14-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 387257
Site Name: AutoZone #5626
Site Address: 702 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 12-10-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 387257
Site Name: AutoZone #5626
Site Address: 702 E FOOTHILL BLVD
Site City: RIALTO
Site Zip: 92376
Enf Action Date: 12-10-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Bernardino County Fire Department
Enf Action Program: HW
Enf Action Source: CERS

Coordinates:
Site ID: 387257
Facility Name: AutoZone #5626
Env Int Type Code: HMBP

AUTOZONE #5626 (Continued) **S109254288**

Program ID: 10139929
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 34.107090
Longitude: -117.356670

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Andrew Beaven
Entity Title: Not reported
Affiliation Address: Dept 8190, 123 South Front Street
Affiliation City: Memphis
Affiliation State: TN
Affiliation Country: Not reported
Affiliation Zip: 38103
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: AutoZone Stores Inc
Entity Title: Not reported
Affiliation Address: 123 South Front Street
Affiliation City: Memphis
Affiliation State: TN
Affiliation Country: United States
Affiliation Zip: 38103
Affiliation Phone: (901) 495-6500

Affiliation Type Desc: Parent Corporation
Entity Name: Auto Zone
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: AUTOZONE, INC.
Entity Title: Not reported
Affiliation Address: DEPT 8700, P.O. Box 2198
Affiliation City: MEMPHIS
Affiliation State: TN
Affiliation Country: United States
Affiliation Zip: 38101
Affiliation Phone: (901) 495-6500

Affiliation Type Desc: Identification Signer
Entity Name: Deborah Williams
Entity Title: Environmental Coordinator
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AUTOZONE #5626 (Continued) **S109254288**

Affiliation Type Desc:	Operator
Entity Name:	Autozone
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(909) 881-5788

Affiliation Type Desc:	CUPA District
Entity Name:	San Bernardino County Fire
Entity Title:	Not reported
Affiliation Address:	620 South E Street
Affiliation City:	San Bernardino
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92415-0153
Affiliation Phone:	(909) 386-8401

Affiliation Type Desc:	Document Preparer
Entity Name:	Deborah Williams
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	Dept 8190, 123 South Front Street
Affiliation City:	Memphis
Affiliation State:	TN
Affiliation Country:	Not reported
Affiliation Zip:	38103
Affiliation Phone:	Not reported

44
East
< 1/8
0.120 mi.
632 ft.

BERBER RECYCLING **SWRCY** **S109612862**
728 E FOOTHILL BLVD **N/A**
RIALTO, CA 92376

Relative:
Lower

Actual:
1235 ft.

SWRCY:

Name:	BERBER RECYCLING
Address:	728 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Reg Id:	Not reported
Cert Id:	RC294935.001
Mailing Address:	5251 Vineland Ave #504
Mailing City:	North Hollywood
Mailing State:	CA
Mailing Zip Code:	91601
Website:	Not reported

BERBER RECYCLING (Continued) **S109612862**

Email:	Not reported
Phone Number:	(213) 352-0002
Rural:	N
Operation Begin Date:	02/01/2020
Aluminium:	Not reported
Glass:	Not reported
Plastic:	Not reported
Bimetal:	Not reported
Hours of Operation:	Mon - Sat 8:00 am - 5:00 pm, Closed 12:00 - 12:30 pm; Sun 9:00 am - 2:00 pm, Closed 12:00 - 12:30 pm
Organization ID:	Not reported
Organization Name:	Berber Recycling

45
NNW
1/8-1/4
0.163 mi.
861 ft.

STEVE CAMERON **RCRA NonGen / NLR** **1024776944**
630 N ENCINA AVE **CAC002996881**
RIALTO, CA 92376

Relative:
Higher

Actual:
1262 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2019-01-16 00:00:00.0
Handler Name:	STEVE CAMERON	
Handler Address:		630 N ENCINA AVE
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAC002996881
Contact Name:		STEVE CAMERON
Contact Address:		630 N ENCINA AVE
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		909-820-0522
Contact Fax:		Not reported
Contact Email:		KRISTINE.RAMOS@PEAS1.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		630 N ENCINA AVE
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		STEVE CAMERON
Owner Type:		Other
Operator Name:		STEVE CAMERON
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes

STEVE CAMERON (Continued) **1024776944**

Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2019-02-22 19:40:07.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	STEVE CAMERON
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	630 N ENCINA AVE
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-820-0522
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported

STEVE CAMERON (Continued) **1024776944**

Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: STEVE CAMERON
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 630 N ENCINA AVE
Owner/Operator City,State,Zip: RIALTO, CA 92376
Owner/Operator Telephone: 909-820-0522
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2019-01-16 00:00:00.0
Handler Name: STEVE CAMERON
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

H46 **EAGLE SMOG CHECK** **San Bern. Co. Permit** **1000389719**
WSW **364 E FOOTHILL BLVD** **N/A**
1/8-1/4 **RIALTO, CA 92367**
0.211 mi.
1112 ft. **Site 1 of 3 in cluster H**

Relative:
Higher

Actual:
1251 ft.

San Bern. Co. Permit:
Name: EAGLE SMOG CHECK
Address: 364 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92367
Region: SAN BERNARDINO
Facility ID: FA0007322
Owner: WINSTON TIRES
Permit Number: PT0002837
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES (W/GEN PRMT)
Facility Status: INACTIVE
Expiration Date: 07/31/2003

EAGLE SMOG CHECK (Continued) **1000389719**

Name: EAGLE SMOG CHECK
Address: 364 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92367
Region: SAN BERNARDINO
Facility ID: FA0007322
Owner: WINSTON TIRES
Permit Number: PT0002838
Permit Category: HAZARDOUS WASTE GENERATOR - 0-10 EMPLOYEES
Facility Status: INACTIVE
Expiration Date: 07/31/2003

---

47 **EDEL ZAYAS** **RCRA NonGen / NLR** **1025835182**
ENE **595 N CHESTNUT AVE** **CAC003014766**
1/8-1/4 **RIALTO, CA 92376**
0.225 mi.
1189 ft.

Relative: **Higher**
Actual: **1246 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		2019-05-13 00:00:00.0
Handler Name:	EDEL ZAYAS	
Handler Address:		595 N CHESTNUT AVE
Handler City,State,Zip:		RIALTO, CA 92376
EPA ID:		CAC003014766
Contact Name:		EDEL ZAYAS
Contact Address:		595 N CHESTNUT AVE
Contact City,State,Zip:		RIALTO, CA 92376
Contact Telephone:		909-676-4980
Contact Fax:		Not reported
Contact Email:		AMARTINO@VIKINGENVIRO.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		595 N CHESTNUT AVE
Mailing City,State,Zip:		RIALTO, CA 92376
Owner Name:		EDEL ZAYAS
Owner Type:		Other
Operator Name:		EDEL ZAYAS
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		Yes
Universal Waste Destination Facility:		Yes
Federal Universal Waste:		No

EDEL ZAYAS (Continued) **1025835182**

Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2019-06-27 11:35:05.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	EDEL ZAYAS
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	595 N CHESTNUT AVE
Owner/Operator City,State,Zip:	RIALTO, CA 92376
Owner/Operator Telephone:	909-676-4980
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

EDEL ZAYAS (Continued) **1025835182**

Owner/Operator Indicator: Operator
Owner/Operator Name: EDEL ZAYAS
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 595 N CHESTNUT AVE
Owner/Operator City,State,Zip: RIALTO, CA 92376
Owner/Operator Telephone: 909-676-4980
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 2019-05-13 00:00:00.0
Handler Name: EDEL ZAYAS
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

H48 **DON'S POOL AND SPA SUPPLIES** **San Bern. Co. Permit** **S116676312**
WSW **407 E FOOTHILL BLVD** **N/A**
1/8-1/4 **RIALTO, CA 92377**
0.243 mi.
1284 ft. **Site 2 of 3 in cluster H**

Relative: Higher
Actual: 1250 ft.

San Bern. Co. Permit:
Name: DON'S POOL AND SPA SUPPLIES
Address: 407 E FOOTHILL BLVD
City,State,Zip: RIALTO, CA 92377
Region: SAN BERNARDINO
Facility ID: FA0015329
Owner: SOVARRUBIAS DANIEL
Permit Number: PT0030583
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS SPECIAL
Facility Status: INACTIVE
Expiration Date: 03/31/2015

49
SSW
1/8-1/4
0.246 mi.
1299 ft.

MARLIYN HUDSON
418 E MCKINLEY ST
RIALTO, CA 92376

RCRA NonGen / NLR

1026051816
CAC003058706

Relative:
Lower

Actual:
1229 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:		2020-03-04 00:00:00.0
Handler Name:	MARLIYN HUDSON	
Handler Address:		418 E MCKINLEY ST
Handler City,State,Zip:		RIALTO, CA 92376-6054
EPA ID:		CAC003058706
Contact Name:		MARLIYN HUDSON
Contact Address:		418 E MCKINLEY ST
Contact City,State,Zip:		RIALTO, CA 92376-6054
Contact Telephone:		909-888-6511
Contact Fax:		Not reported
Contact Email:		UNIKONE6@SBCGLOBAL.NET
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		418 E MCKINLEY ST
Mailing City,State,Zip:		RIALTO, CA 92376-6054
Owner Name:		MARLIYN HUDSON
Owner Type:		Other
Operator Name:		MARLIYN HUDSON
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

MARLIYN HUDSON (Continued) **1026051816**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2020-03-06 18:11:32.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	MARLIYN HUDSON
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	418 E MCKINLEY ST
Owner/Operator City,State,Zip:	RIALTO, CA 92376-6054
Owner/Operator Telephone:	909-888-6511
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	MARLIYN HUDSON
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	418 E MCKINLEY ST
Owner/Operator City,State,Zip:	RIALTO, CA 92376-6054
Owner/Operator Telephone:	909-888-6511
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

MARLIYN HUDSON (Continued) **1026051816**

Historic Generators:
- Receive Date: 2020-03-04 00:00:00.0
- Handler Name: MARLIYN HUDSON
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 56299
- NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

H50 **NED'S OIL SALES INC** **HIST UST** **U001575549**
West **312 E FOOTHILL BLVD** **San Bern. Co. Permit** **N/A**
1/8-1/4 **RIALTO, CA 92376**
0.247 mi.
1303 ft. **Site 3 of 3 in cluster H**

Relative: **Higher**

Actual: **1253 ft.**

HIST UST:
- Name: NEDS OIL SALES
- Address: 312 E FOOTHILL
- City,State,Zip: RIALTO, CA 92376
- File Number: 0002A501
- URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002A501.pdf
- Region: STATE
- Facility ID: 00000035110
- Facility Type: Gas Station
- Other Type: Not reported
- Contact Name: Not reported
- Telephone: 7148751414
- Owner Name: ROBERT GARDNER
- Owner Address: 312 E FOOTHILL
- Owner City,St,Zip: RIALTO, CA 92376
- Total Tanks: 0004

- Tank Num: 001
- Container Num: 4
- Year Installed: 1954
- Tank Capacity: 00012000
- Tank Used for: PRODUCT
- Type of Fuel: REGULAR
- Container Construction Thickness: Not reported
- Leak Detection: Stock Inventor

NED'S OIL SALES INC (Continued) **U001575549**

Tank Num:	002
Container Num:	3
Year Installed:	1954
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	2
Year Installed:	1954
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	1
Year Installed:	1954
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

San Bern. Co. Permit:

Name:	NED'S OIL SALES INC
Address:	312 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	SAN BERNARDINO
Facility ID:	FA0004953
Owner:	DIANE BOWMAN
Permit Number:	PT0005355
Permit Category:	HAZMAT HANDLER 0-10 EMPLOYEES
Facility Status:	INACTIVE
Expiration Date:	09/30/2010

I51 **THRIFTY OIL #77 / ARCO #9551** **LUST** **S103950666**
West **280 E FOOTHILL BLVD** **Cortese** **N/A**
1/4-1/2 **RIALTO, CA 92376** **CERS**
0.310 mi.
1635 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
1255 ft.

LUST:

Name:	THRIFTY OIL #77 / ARCO #9551
Address:	280 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Lead Agency:	SAN BERNARDINO COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607100501
Global Id:	T0607100501
Latitude:	34.107056
Longitude:	-117.366346

THRIFTY OIL #77 / ARCO #9551 (Continued) **S103950666**

Status:	Completed - Case Closed
Status Date:	05/25/2004
Case Worker:	Not reported
RB Case Number:	083603250T
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	98052
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline, MTBE / TBA / Other Fuel Oxygenates
Site History:	Not reported

LUST:

Global Id:	T0607100501
Contact Type:	Regional Board Caseworker
Contact Name:	VALERIE JAHN-BULL
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	valerie.jahn-bull@waterboards.ca.gov
Phone Number:	9517824903

LUST:

Global Id:	T0607100501
Action Type:	Other
Date:	03/04/1998
Action:	Leak Discovery
Global Id:	T0607100501
Action Type:	Other
Date:	08/31/1998
Action:	Leak Reported
Global Id:	T0607100501
Action Type:	REMEDIATION
Date:	09/09/2002
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0607100501
Action Type:	ENFORCEMENT
Date:	03/25/2004
Action:	Closure/No Further Action Letter

LUST:

Global Id:	T0607100501
Status:	Open - Case Begin Date
Status Date:	03/04/1998
Global Id:	T0607100501
Status:	Open - Site Assessment
Status Date:	04/12/1999
Global Id:	T0607100501
Status:	Open - Remediation
Status Date:	03/30/2001
Global Id:	T0607100501
Status:	Completed - Case Closed

THRIFTY OIL #77 / ARCO #9551 (Continued) **S103950666**

Status Date: 05/25/2004

CORTESE:

Name:	THRIFTY OIL #77 / ARCO #9551
Address:	280 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0607100501
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	THRIFTY OIL #77 / ARCO #9551
Address:	280 E FOOTHILL BLVD
City,State,Zip:	RIALTO, CA 92376
Site ID:	216806
CERS ID:	T0607100501
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	VALERIE JAHN-BULL - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9517824903

I52 **THRIFTY OIL #77 / ARCO #9551** **LUST** **S103943747**
WSW **280 FOOTHILL BLVD** **N/A**
1/4-1/2 **RIALTO, CA 92376**
0.314 mi.
1658 ft. **Site 2 of 2 in cluster I**

Relative: **Higher**

Actual: **1253 ft.**

LUST REG 8:

Name:	THRIFTY OIL #77 / ARCO #9551
Address:	280 FOOTHILL BLVD
City:	RIALTO
Region:	8
County:	San Bernardino
Regional Board:	Santa Ana Region
Facility Status:	Preliminary site assessment workplan submitted
Case Number:	083603250T
Local Case Num:	98052
Case Type:	Soil only
Substance:	8006619, MTB
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	SYCAMORE
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0607100501
How Stopped Date:	Not reported
Enter Date:	9/30/1998
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	3/4/1998
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	1/1/1965
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	9/30/1998
GW Qualifies:	Not reported
Soil Qualifies:	ND
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.1069352
Longitude:	-117.36637
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	0
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	VJJ
Staff Initials:	LH6
Lead Agency:	Local Agency

THRIFTY OIL #77 / ARCO #9551 (Continued) **S103943747**

Local Agency:	36000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	MUN
Priority:	A2
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

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53 **RIALTO COMMUNITY SCHOOL** **ENVIROSTOR** **S105754271**
SSE **RIALTO AVENUE/ARROWHEAD AVENUE** **SCH** **N/A**
1/4-1/2 **RIALTO, CA 92376**
0.464 mi.
2449 ft.

Relative:
Lower

Actual:
1202 ft.

ENVIROSTOR:

Name:	RIALTO COMMUNITY SCHOOL
Address:	RIALTO AVENUE/ARROWHEAD AVENUE
City,State,Zip:	RIALTO, CA 92376
Facility ID:	36010042
Status:	No Further Action
Status Date:	06/11/2003
Site Code:	404411
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	4.5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	47
Senate:	20
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.10027
Longitude:	-117.358
APN:	NONE SPECIFIED
Past Use:	* AGRICULTURAL SERVICES
Potential COC:	Arsenic Lead Benzo[a]pyrene Xylenes Benzene Toluene
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL, SV
Alias Name:	RIALTO COMMUNITY SCHOOL
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDIN CO. SUPT. OF SCHOOLS
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDINO CO. SUPERINTENDENT OF SCH
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDINO COUNTY SOS-RIALTO COM SCL
Alias Type:	Alternate Name
Alias Name:	404411
Alias Type:	Project Code (Site Code)
Alias Name:	36010042
Alias Type:	Envirostor ID Number

Completed Info:

RIALTO COMMUNITY SCHOOL (Continued) **S105754271**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/11/2003
Comments:	No further action

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	01/27/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	01/07/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	06/17/2003
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	RIALTO COMMUNITY SCHOOL
Address:	RIALTO AVENUE/ARROWHEAD AVENUE
City,State,Zip:	RIALTO, CA 92376
Facility ID:	36010042
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	4.5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404411
Assembly:	47
Senate:	20
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	06/11/2003

RIALTO COMMUNITY SCHOOL (Continued) **S105754271**

Restricted Use:	NO
Funding:	School District
Latitude:	34.10027
Longitude:	-117.358
APN:	NONE SPECIFIED
Past Use:	* AGRICULTURAL SERVICES
Potential COC:	Arsenic, Arsenic, Lead, Benzo[a]pyrene, Xylenes, Benzene, Toluene
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL, SV
Alias Name:	RIALTO COMMUNITY SCHOOL
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDIN CO. SUPT. OF SCHOOLS
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDINO CO. SUPERINTENDENT OF SCH
Alias Type:	Alternate Name
Alias Name:	SAN BERNARDINO COUNTY SOS-RIALTO COM SCL
Alias Type:	Alternate Name
Alias Name:	404411
Alias Type:	Project Code (Site Code)
Alias Name:	36010042
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	06/11/2003
Comments:	No further action
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	01/27/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	01/07/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	06/17/2003
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
RIALTO	S104745443	TOSCO/ UNOCAL #1995	101 FOOTHILL BLVD	92376	LUST, HIST CORTESE
SAN BERNARDINO	1003878981	SECCOMBE LAKE STATE REC AREA	7TH ST BETW SERRIA & WATERMAN	92410	SEMS-ARCHIVE
SAN BERNARDINO	S106162215	NORTON A F B BLDG 754	7TH ST	92410	LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 03/30/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/09/2020
Date Data Arrived at EDR: 11/10/2020
Date Made Active in Reports: 01/14/2021
Number of Days to Update: 65

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/22/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/09/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/16/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/29/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/24/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/30/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/16/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/24/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2020
Date Data Arrived at EDR: 11/12/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 03/11/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/05/2020
Date Data Arrived at EDR: 08/10/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 59
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/05/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/02/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/27/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/18/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/30/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/01/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 63

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/24/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/10/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/02/2021
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 03/09/2021
Number of Days to Update: 82

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/23/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/12/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 11/17/2020
Date Data Arrived at EDR: 11/18/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 78

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/25/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/09/2021
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 01/29/2021
Number of Days to Update: 77

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/13/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/13/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/05/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 10/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2020
Date Data Arrived at EDR: 11/10/2020
Date Made Active in Reports: 01/27/2021
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/17/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 82

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/22/2020
Date Data Arrived at EDR: 11/03/2020
Date Made Active in Reports: 01/20/2021
Number of Days to Update: 78

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2020
Date Data Arrived at EDR: 11/19/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 77

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/21/2020
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 01/29/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 11/16/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/08/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/26/2020
Date Data Arrived at EDR: 10/28/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 79

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 09/01/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 09/01/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 1

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/15/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/15/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/16/2020
Date Data Arrived at EDR: 11/18/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 78

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/16/2021
Number of Days to Update: 77

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/03/2021
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/27/2021
Number of Days to Update: 82

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/28/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/08/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/20/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/05/2021
Number of Days to Update: 74

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 04/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 12/03/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/12/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2021
Date Data Arrived at EDR: 01/06/2021
Date Made Active in Reports: 03/18/2021
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/19/2021
Next Scheduled EDR Contact: 07/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 77

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 10/30/2020
Date Data Arrived at EDR: 11/03/2020
Date Made Active in Reports: 01/20/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/25/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/28/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 82

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/09/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/26/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/26/2021
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 02/03/2021
Number of Days to Update: 6

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 10/20/2020
Date Made Active in Reports: 11/02/2020
Number of Days to Update: 13

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/29/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2021
Next Scheduled EDR Contact: 06/21/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

2749-CR
FOOTHILL BLVD & N ACACIA AVE
RIALTO, CA 92376

TARGET PROPERTY COORDINATES

Latitude (North):	34.107875 - 34° 6' 28.35''
Longitude (West):	117.359991 - 117° 21' 35.97''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	466796.9
UTM Y (Meters):	3773980.8
Elevation:	1244 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012
Southwest Map:	5619058 FONTANA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

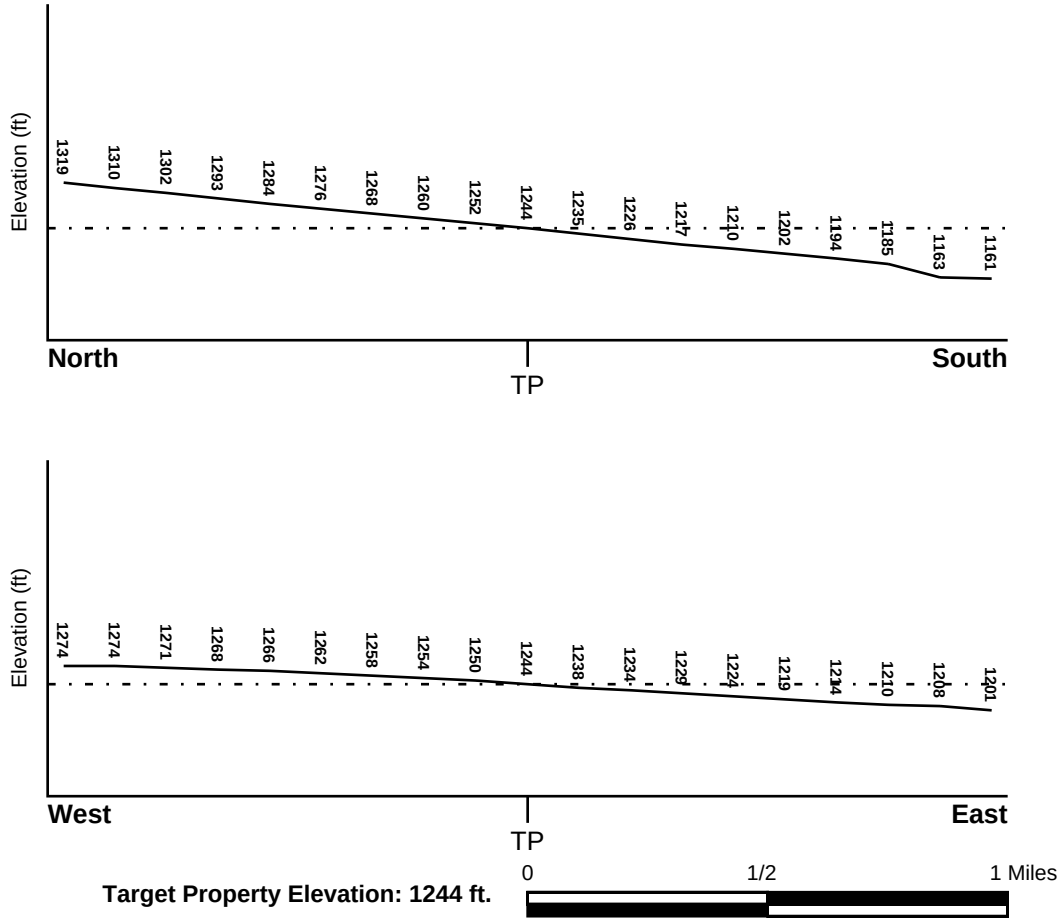
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06071C8676H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06071C8657H	FEMA FIRM Flood data
06071C8677H	FEMA FIRM Flood data
06071C8678H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1 - 2 Miles WSW
Site Name:	D&M DRUM CO
Site EPA ID Number:	CAT080010432
Groundwater Flow Direction:	Southeast
Inferred Depth to Water:	220 to 320 feet.
Hydraulic Connection:	The site is underlain by a single unconfined aquifer, the Rialto-Colton groundwater basin, which is likely recharged by Lytle Creek to the north. Ground water flow barriers exist to the north, east, and west of the basin.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

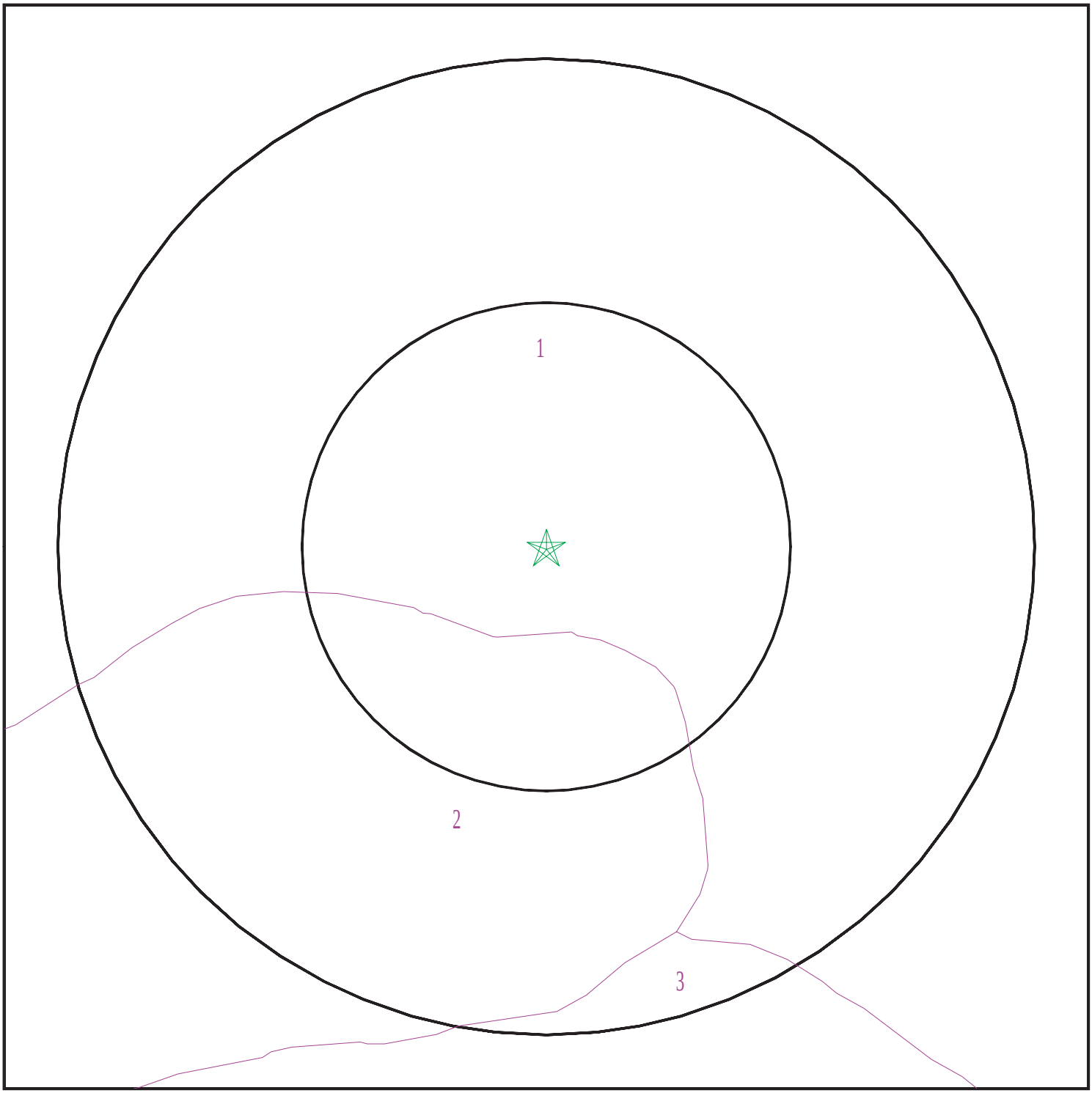
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6463208.2s



SITE NAME:	2749-CR	CLIENT:	Geotek
ADDRESS:	Foothill Blvd & N Acacia Ave Rialto CA 92376	CONTACT:	Gabriela Pocius
LAT/LONG:	34.107875 / 117.359991	INQUIRY #:	6463208.2s
		DATE:	April 23, 2021 1:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: HANFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	11 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6

Soil Map ID: 2

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	18 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

Soil Map ID: 3

Soil Component Name: Hanford

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	11 inches	59 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C12	USGS40000140979	1/2 - 1 Mile South
D17	USGS40000141310	1/2 - 1 Mile WNW
E19	USGS40000141350	1/2 - 1 Mile WNW
24	USGS40000140943	1/2 - 1 Mile South
25	USGS40000141152	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

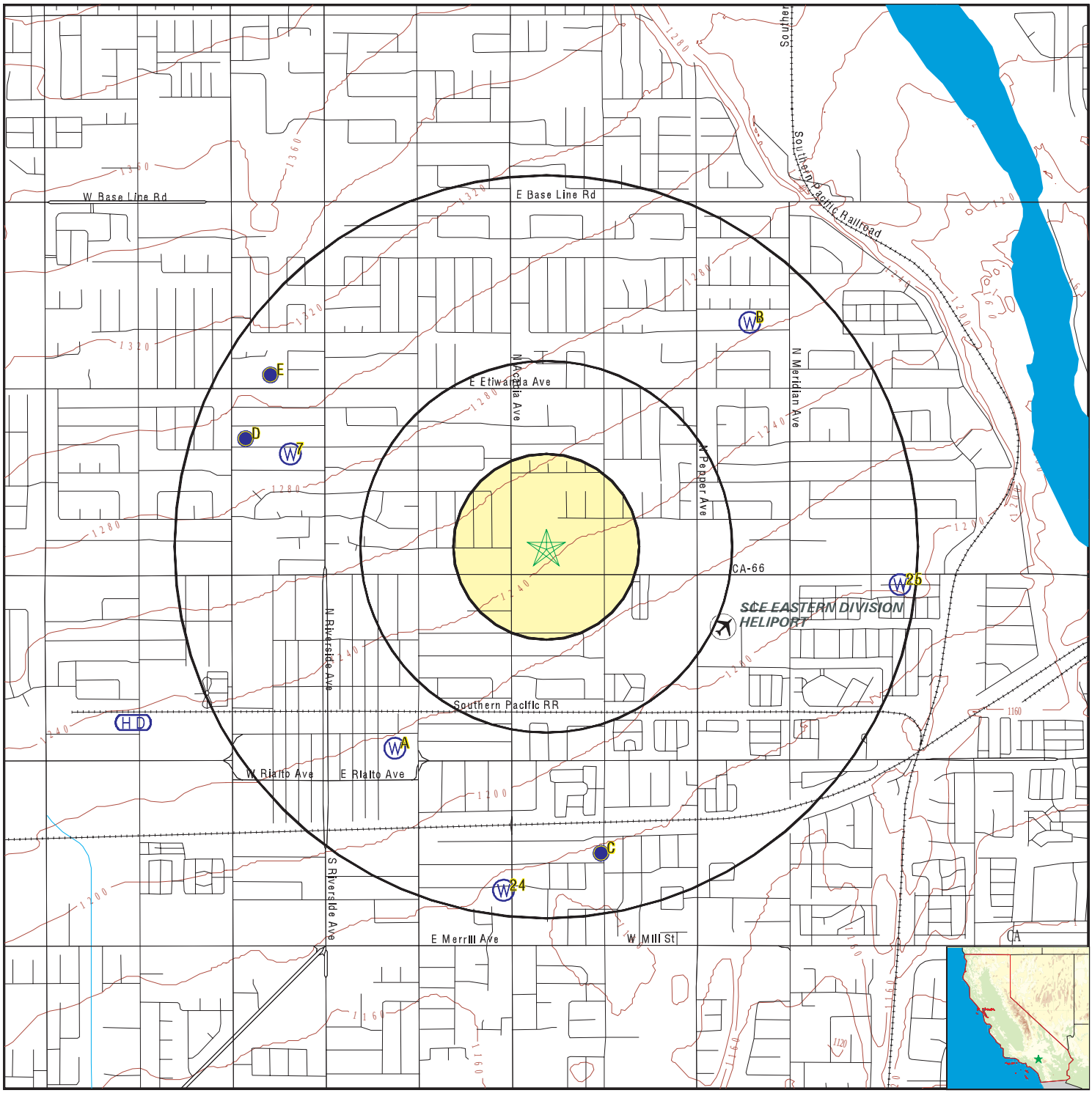
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADDW0000012578	1/2 - 1 Mile SW
A2	CADDW0000004774	1/2 - 1 Mile SW
A3	CADDW0000000320	1/2 - 1 Mile SW
A4	981	1/2 - 1 Mile SW
A5	994	1/2 - 1 Mile SW
A6	18725	1/2 - 1 Mile SW
7	CADWR0000034236	1/2 - 1 Mile WNW
B8	206	1/2 - 1 Mile NE
B9	143	1/2 - 1 Mile NE
B10	CADDW0000012197	1/2 - 1 Mile NE
B11	CADDW0000002584	1/2 - 1 Mile NE
C13	CAUSGSN00006857	1/2 - 1 Mile South
C14	CADWR8000006774	1/2 - 1 Mile SSE
D15	CAUSGSN00019272	1/2 - 1 Mile WNW
D16	CAUSGS000002015	1/2 - 1 Mile WNW
E18	CAUSGSN00015047	1/2 - 1 Mile WNW
E20	CAUSGSN00006972	1/2 - 1 Mile WNW
E21	CAPFAS000001501	1/2 - 1 Mile WNW
E22	CADDW0000020023	1/2 - 1 Mile WNW
E23	CADWR8000006864	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 6463208.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	2749-CR	CLIENT:	Geotek
ADDRESS:	Foothill Blvd & N Acacia Ave Rialto CA 92376	CONTACT:	Gabriela Pocius
LAT/LONG:	34.107875 / 117.359991	INQUIRY #:	6463208.2s
		DATE:	April 23, 2021 1:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
SW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000012578**

Well ID:	3610004-032	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 42	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610004-032&store_num=		
GeoTracker Data:	Not Reported		

A2
SW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000004774**

Well ID:	3610004-011	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 16	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610004-011&store_num=		
GeoTracker Data:	Not Reported		

A3
SW
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000000320**

Well ID:	3610004-008	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 11 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610004-008&store_num=		
GeoTracker Data:	Not Reported		

A4
SW
1/2 - 1 Mile
Lower

CA WELLS **981**

Seq:	981	Prim sta c:	01S/05W-02K01 S
Frds no:	3610004008	County:	36
District:	13	User id:	TAN
System no:	3610004	Water type:	G
Source nam:	WELL 11	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340600.0	Longitude:	1172200.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	3610004	System nam:	West San Bernardino Cwd

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Hqname:	Not Reported	Address:	PO BOX 920
City:	RIALTO	State:	CA
Zip:	92376	Zip ext:	0920
Pop serv:	41454	Connection:	15052
Area serve:	RIALTO-BLOOMINGTON		
Sample date:	08-MAR-18	Finding:	260.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	0.9
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-MAR-18	Finding:	0.3
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-MAR-18	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-MAR-18	Finding:	8.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	2.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	7.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	57.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	6.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-MAR-18	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	08-MAR-18	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	08-MAR-18	Finding:	140.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	08-FEB-18	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	4.1
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-FEB-18	Finding:	250.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	290.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	08-FEB-18	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-FEB-18	Finding:	21.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-FEB-18	Finding:	6.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	7.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	6.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-18	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L

Dlr:	0.		
Sample date:	08-FEB-18	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-FEB-18	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	1.7
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-JAN-18	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	180.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	5.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-18	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	59.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	7.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	6.9
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-JAN-18	Finding:	19.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	11-JAN-18	Finding:	0.32
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-JAN-18	Finding:	1.8
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	11-JAN-18	Finding:	280.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	11-JAN-18	Finding:	8.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	11-JAN-18	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	07-DEC-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-DEC-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	61.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	7.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	7.4
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	07-DEC-17	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-DEC-17	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-DEC-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-DEC-17	Finding:	420.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	1.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-NOV-17	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-NOV-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	64.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	7.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	7.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	14-NOV-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	14-NOV-17	Finding:	0.3
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	14-NOV-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	14-NOV-17	Finding:	410.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	2.1
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	16-OCT-17	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-OCT-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	61.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	7.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	16-OCT-17	Finding:	7.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	16-OCT-17	Finding:	25.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	16-OCT-17	Finding:	0.3
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-OCT-17	Finding:	0.9
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	07-SEP-17	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	07-SEP-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	7.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	2.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	7.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	07-SEP-17	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-SEP-17	Finding:	0.28
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-SEP-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	420.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	02-AUG-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-AUG-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	62.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	7.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	7.6
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	02-AUG-17	Finding:	0.27
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-AUG-17	Finding:	250.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	02-AUG-17	Finding:	440.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	6.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	7.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	6.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	12-JUL-17	Finding:	0.26
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-JUL-17	Finding:	2.
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	12-JUL-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	0.32
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	06-JUN-17	Finding:	440.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	7.5
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUN-17	Finding:	200.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	7.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUN-17	Finding:	7.4
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	06-JUN-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	04-MAY-17	Finding:	7.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-MAY-17	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	58.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	7.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	2.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	7.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	21.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	04-MAY-17	Finding:	0.26
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	04-MAY-17	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	04-MAY-17	Finding:	410.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

Sample date:	06-APR-17	Finding:	1.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	06-APR-17	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-APR-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-APR-17	Finding:	200.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	61.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	7.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	7.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	06-APR-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	06-APR-17	Finding:	0.36
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	06-APR-17	Finding:	1.9
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	06-APR-17	Finding:	180.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		
Sample date:	06-APR-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

Dlr:	0.		
Sample date:	06-APR-17	Finding:	420.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	02-MAR-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	7.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-MAR-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	8.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	6.9
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	02-MAR-17	Finding:	27.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	02-MAR-17	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-MAR-17	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	02-MAR-17	Finding:	450.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-FEB-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	7.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	2.9
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	7.1
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	14-FEB-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	14-FEB-17	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	14-FEB-17	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	300.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

Dlr:	0.		
Sample date:	09-JAN-17	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-JAN-17	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	64.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	8.2
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	7.3
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JAN-17	Finding:	26.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-JAN-17	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	09-JAN-17	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	09-JAN-17	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	13-DEC-16	Finding:	440.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-DEC-16	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	64.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	7.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	8.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	13-DEC-16	Finding:	27.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	13-DEC-16	Finding:	0.3
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	13-DEC-16	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	290.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	0.3
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L

Dlr:	0.1		
Sample date:	07-NOV-16	Finding:	450.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	7.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-NOV-16	Finding:	210.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	64.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	7.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	7.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-NOV-16	Finding:	26.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-OCT-16	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-OCT-16	Finding:	2.2
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	05-OCT-16	Finding:	0.28
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	05-OCT-16	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-OCT-16	Finding:	8.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	7.2
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	59.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	210.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	7.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-OCT-16	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	450.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	05-OCT-16	Finding:	290.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	13-SEP-16	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	13-SEP-16	Finding:	8.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	8.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	66.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	200.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	6.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-16	Finding:	210.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	440.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	13-SEP-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	04-AUG-16	Finding:	2.
Chemical:	ODOR THRESHOLD @ 60 C	Report units:	TON
Dlr:	1.		
Sample date:	04-AUG-16	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	04-AUG-16	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	5.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-AUG-16	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	61.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	7.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	7.1
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	21.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	04-AUG-16	Finding:	0.31
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	04-AUG-16	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-16	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	04-AUG-16	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	06-JUL-16	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	0.47
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	06-JUL-16	Finding:	0.554
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	0.158
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	6.6e-002
Chemical:	RADIUM 226	Report units:	PCI/L
Dlr:	1.		
Sample date:	06-JUL-16	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	1.6
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	06-JUL-16	Finding:	6.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUL-16	Finding:	0.96
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	3.9
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	06-JUL-16	Finding:	2.3
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	2.
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	06-JUL-16	Finding:	3.
Chemical:	ODOR THRESHOLD @ 60 C	Report units:	TON
Dlr:	1.		
Sample date:	06-JUL-16	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	06-JUL-16	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUL-16	Finding:	0.2
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	63.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	7.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	11.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	8.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	06-JUL-16	Finding:	27.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	06-JUL-16	Finding:	0.37
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-JUN-16	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	0.33
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	02-JUN-16	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	02-JUN-16	Finding:	7.1
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	02-JUN-16	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	7.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	61.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	180.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	5.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-JUN-16	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUN-16	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-JUN-16	Finding:	4.8
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	10-NOV-15	Finding:	6.2
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	10-NOV-15	Finding:	2.
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-NOV-15	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-NOV-15	Finding:	0.86
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-NOV-15	Finding:	1.6
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	10-NOV-15	Finding:	3.9
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	02-DEC-14	Finding:	1.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	29-NOV-14	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	22-SEP-14	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	22-SEP-14	Finding:	1.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	22-SEP-14	Finding:	7.43
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	2.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	7.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	27.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	25-JUN-14	Finding:	0.34
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	25-JUN-14	Finding:	3.5
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	25-JUN-14	Finding:	0.12
Chemical:	FOAMING AGENTS (MBAS)	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	250.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	0.79
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	0.21
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported

Dlr:	0.		
Sample date:	25-JUN-14	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-JUN-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	5800.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JUN-14	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	25-JUN-14	Finding:	7.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	62.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	190.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	430.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	25-JUN-14	Finding:	21.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	22-MAR-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-MAR-12	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	13-MAR-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	13-MAR-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAR-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-FEB-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-FEB-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-FEB-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-FEB-12	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-FEB-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JAN-12	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-JAN-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JAN-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-JAN-12	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

A5
SW
1/2 - 1 Mile
Lower

CA WELLS 994

Seq:	994	Prim sta c:	01S/05W-12L01 S
Frds no:	3610004011	County:	36
District:	13	User id:	TAN
System no:	3610004	Water type:	G
Source nam:	WELL 16	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340600.0	Longitude:	1172200.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3610004	System nam:	West San Bernardino Cwd
Hqname:	Not Reported	Address:	PO BOX 920
City:	RIALTO	State:	CA
Zip:	92376	Zip ext:	0920
Pop serv:	41454	Connection:	15052
Area serve:	RIALTO-BLOOMINGTON		

Sample date:	27-OCT-15	Finding:	47.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	27-OCT-15	Finding:	6.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	22-OCT-15	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	22-OCT-15	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	13-OCT-15	Finding:	6.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	13-OCT-15	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	07-OCT-15	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	07-OCT-15	Finding:	6.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	29-SEP-15	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	29-SEP-15	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	22-SEP-15	Finding:	6.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	22-SEP-15	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	15-SEP-15	Finding:	5.7
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	15-SEP-15	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	09-SEP-15	Finding:	33.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-15	Finding:	1.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	09-SEP-15	Finding:	0.5
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	02-SEP-15	Finding:	35.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-SEP-15	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	25-AUG-15	Finding:	5.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	25-AUG-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-15	Finding:	4.7
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	20-AUG-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-AUG-15	Finding:	5.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	11-AUG-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-AUG-15	Finding:	5.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	05-AUG-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUL-15	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	29-JUL-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-JUL-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	14-JUL-15	Finding:	4.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	14-JUL-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUL-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-JUL-15	Finding:	4.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	23-JUN-15	Finding:	4.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	17-JUN-15	Finding:	4.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	02-JUN-15	Finding:	5.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	02-JUN-15	Finding:	32.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-MAY-15	Finding:	6.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	19-MAY-15	Finding:	4.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	12-MAY-15	Finding:	4.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	05-MAY-15	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	28-APR-15	Finding:	5.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	22-APR-15	Finding:	5.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	14-APR-15	Finding:	6.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	08-APR-15	Finding:	5.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	01-APR-15	Finding:	4.7
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	25-MAR-15	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	10-MAR-15	Finding:	1.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.77
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	2.1
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	10-MAR-15	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.633
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.2
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	5.9e-002
Chemical:	RA-226 FOR CWS OR TOTAL RA FOR NTNC BY 903.0		
Report units:	PCI/L	Dlr:	0.
Sample date:	10-MAR-15	Finding:	0.164
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.47
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Report units:	PCI/L	Dlr:	0.
Sample date:	10-MAR-15	Finding:	2.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	04-MAR-15	Finding:	38.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-15	Finding:	5.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	24-FEB-15	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L

Dlr:	4.		
Sample date:	18-FEB-15	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	26-JAN-15	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	20-JAN-15	Finding:	4.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	14-JAN-15	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	08-JAN-15	Finding:	6.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	30-DEC-14	Finding:	5.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	23-DEC-14	Finding:	7.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	16-DEC-14	Finding:	5.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	09-DEC-14	Finding:	39.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-14	Finding:	4.7
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	03-DEC-14	Finding:	6.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	03-DEC-14	Finding:	1.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	25-NOV-14	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	15-OCT-14	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	09-OCT-14	Finding:	5.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		

Sample date:	01-OCT-14	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-OCT-14	Finding:	5.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	01-OCT-14	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	22-SEP-14	Finding:	38.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-SEP-14	Finding:	1.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	22-SEP-14	Finding:	5.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	22-SEP-14	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	10-SEP-14	Finding:	5.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	03-SEP-14	Finding:	5.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	28-AUG-14	Finding:	5.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	21-AUG-14	Finding:	5.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	05-AUG-14	Finding:	4.7
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	31-JUL-14	Finding:	5.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	19-JUN-14	Finding:	5.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	12-JUN-14	Finding:	0.21
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	0.79
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported

Dlr:	0.		
Sample date:	12-JUN-14	Finding:	260.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	0.11
Chemical:	FOAMING AGENTS (MBAS)	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	8.5
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	12-JUN-14	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-JUN-14	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-JUN-14	Finding:	8.3
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	1.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	10.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	6.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	58.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	150.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	7.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

Sample date:	12-JUN-14	Finding:	22.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-JUN-14	Finding:	11.99
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	6100.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-MAY-14	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	05-MAR-14	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-FEB-14	Finding:	5.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	11-FEB-14	Finding:	4.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	06-FEB-14	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	06-FEB-14	Finding:	5.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	15-JAN-14	Finding:	5.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	08-JAN-14	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-JAN-14	Finding:	6.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	30-DEC-13	Finding:	7.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	26-DEC-13	Finding:	4.4
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	04-DEC-13	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU

Dlr:	0.1		
Sample date:	04-DEC-13	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-DEC-13	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	17-OCT-13	Finding:	4.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	17-OCT-13	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	02-OCT-13	Finding:	4.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	04-SEP-13	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-MAY-13	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	17-APR-13	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	17-APR-13	Finding:	4.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	26-MAR-13	Finding:	4.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	20-MAR-13	Finding:	5.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	14-MAR-13	Finding:	4.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	06-MAR-13	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	04-MAR-13	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	10-DEC-12	Finding:	1.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	10-DEC-12	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-NOV-12	Finding:	6.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	20-NOV-12	Finding:	6.
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	15-NOV-12	Finding:	6.2
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	15-NOV-12	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	25-OCT-12	Finding:	4.5
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	18-SEP-12	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUL-12	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	13-JUN-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-12	Finding:	4.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	13-MAR-12	Finding:	26.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-FEB-12	Finding:	4.6
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	02-FEB-12	Finding:	4.9
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	24-JAN-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-JAN-12	Finding:	24.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JAN-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	06-JAN-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

A6
SW
1/2 - 1 Mile
Lower

CA WELLS 18725

Seq:	18725	Prim sta c:	3610004-032
Frds no:	3610004032	County:	36
District:	13	User id:	TAN
System no:	3610004	Water type:	G
Source nam:	WELL 42	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340600.0	Longitude:	1172200.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	3610004	System nam:	West San Bernardino Cwd
Hqname:	Not Reported	Address:	PO BOX 920
City:	RIALTO	State:	CA
Zip:	92376	Zip ext:	0920
Pop serv:	41454	Connection:	15052
Area serve:	RIALTO-BLOOMINGTON		
Sample date:	04-APR-18	Finding:	7.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAR-18	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-18	Finding:	7.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-18	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-MAR-18	Finding:	7.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-MAR-18	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-FEB-18	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-FEB-18	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	14-FEB-18	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-FEB-18	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-JAN-18	Finding:	7.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JAN-18	Finding:	7.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JAN-18	Finding:	4.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-JAN-18	Finding:	4.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-JAN-18	Finding:	0.6
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	09-JAN-18	Finding:	4.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-JAN-18	Finding:	4.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-DEC-17	Finding:	4.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-DEC-17	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-DEC-17	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-DEC-17	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-NOV-17	Finding:	4.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-NOV-17	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-NOV-17	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	14-NOV-17	Finding:	7.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-NOV-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-NOV-17	Finding:	7.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-NOV-17	Finding:	7.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-OCT-17	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-OCT-17	Finding:	4.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-17	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-17	Finding:	4.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-OCT-17	Finding:	4.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-SEP-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-SEP-17	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-SEP-17	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-SEP-17	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-AUG-17	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	16-AUG-17	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-AUG-17	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-AUG-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JUL-17	Finding:	7.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-JUL-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-17	Finding:	4.8
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	5.2
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	12-JUL-17	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	12-JUL-17	Finding:	0.18
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-JUL-17	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-JUL-17	Finding:	6.6
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	16.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	6.2
Chemical:	MAGNESIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	12-JUL-17	Finding:	59.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUL-17	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUL-17	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-JUN-17	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-JUN-17	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-JUN-17	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-JUN-17	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	07-JUN-17	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-MAY-17	Finding:	5.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-MAY-17	Finding:	6.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	16-MAY-17	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-MAY-17	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAY-17	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	03-MAY-17	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-APR-17	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-APR-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-APR-17	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-APR-17	Finding:	6.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-APR-17	Finding:	0.9
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	19-JAN-17	Finding:	7.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-17	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JAN-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JAN-17	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-DEC-16	Finding:	6.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-DEC-16	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-DEC-16	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	07-DEC-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-NOV-16	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-NOV-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-NOV-16	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-NOV-16	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-NOV-16	Finding:	4.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-OCT-16	Finding:	5.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-OCT-16	Finding:	5.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-OCT-16	Finding:	4.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-SEP-16	Finding:	5.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-SEP-16	Finding:	5.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-16	Finding:	5.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	14-SEP-16	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-16	Finding:	5.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-SEP-16	Finding:	5.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-AUG-16	Finding:	5.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-AUG-16	Finding:	6.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-AUG-16	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-AUG-16	Finding:	6.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUL-16	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUL-16	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUL-16	Finding:	7.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUL-16	Finding:	6.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUL-16	Finding:	0.57
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	13-JUL-16	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	07-JUL-16	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-JUN-16	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-JUN-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	16-JUN-16	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-JUN-16	Finding:	1.
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	16-JUN-16	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	10-MAY-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-APR-16	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-APR-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-APR-16	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	12-APR-16	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	12-APR-16	Finding:	0.83
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	29-MAR-16	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAR-16	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	23-FEB-16	Finding:	6.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-FEB-16	Finding:	0.6
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-FEB-16	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JAN-16	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		

Sample date:	20-JAN-16	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JAN-16	Finding:	0.59
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	09-DEC-15	Finding:	0.64
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	09-DEC-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-15	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	09-DEC-15	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-DEC-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-15	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-DEC-15	Finding:	6.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-NOV-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-NOV-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-OCT-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-OCT-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-OCT-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-OCT-15	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	29-SEP-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	22-SEP-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-SEP-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-15	Finding:	2.4
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	09-SEP-15	Finding:	0.66
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	02-SEP-15	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-AUG-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-15	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	02-JUN-15	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUN-15	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-MAY-15	Finding:	0.7
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-APR-15	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	10-MAR-15	Finding:	1.7
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	1.
Chemical:	URANIUM COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	2.1
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	10-MAR-15	Finding:	6.1
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	10-MAR-15	Finding:	0.88
Chemical:	URANIUM MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.587
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.2
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.129
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	0.47
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Report units:	PCI/L	Dlr:	0.
Sample date:	10-MAR-15	Finding:	4.7
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	04-MAR-15	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	04-MAR-15	Finding:	29.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-15	Finding:	0.57
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	03-FEB-15	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-JAN-15	Finding:	0.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-DEC-14	Finding:	30.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-14	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	03-DEC-14	Finding:	1.4
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	01-OCT-14	Finding:	0.6
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU

Dlr:	0.1		
Sample date:	22-SEP-14	Finding:	2.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	22-SEP-14	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-AUG-14	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	12-JUN-14	Finding:	12.05
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	4500.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUN-14	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-JUN-14	Finding:	0.26
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	0.85
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	5.7
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	12-JUN-14	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-JUN-14	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-JUN-14	Finding:	8.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	1.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	6.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUN-14	Finding:	57.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	170.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	190.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	160.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	21.6
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	12-JUN-14	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	05-MAR-14	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-MAR-14	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-MAR-14	Finding:	0.73
Chemical:	TETRACHLOROETHYLENE	Report units:	UG/L
Dlr:	0.5		
Sample date:	04-DEC-13	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-OCT-13	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-JUN-13	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	06-MAR-13	Finding:	2.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	15-JAN-13	Finding:	1.5
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU

Dlr:	0.1		
Sample date:	15-JAN-13	Finding:	5.
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	27-DEC-12	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-DEC-12	Finding:	5.1
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	06-DEC-12	Finding:	0.3
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	06-DEC-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-NOV-12	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	18-SEP-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUL-12	Finding:	6.3
Chemical:	PERCHLORATE	Report units:	UG/L
Dlr:	4.		
Sample date:	10-JUL-12	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	13-JUN-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-MAR-12	Finding:	0.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	24-JAN-12	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JAN-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-JAN-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

7
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000034236**

Well ID:	01S05W02K001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01S05W02K001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=01S05W02K001S&store_num=		
GeoTracker Data:	Not Reported		

B8
NE
1/2 - 1 Mile
Higher

CA WELLS **206**

Seq:	206	Prim sta c:	01N/05W-36R01 S
Frds no:	3610039034	County:	36
District:	13	User id:	TAN
System no:	3610039	Water type:	G
Source nam:	LYTLE CREEK WELL 03	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1172100.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3610039	System nam:	San Bernardino City
Hqname:	SAN BERNARDINO MUN WATER DEPT.	Address:	P.O. BOX 710,
City:	SAN BERNARDINO	State:	CA
Zip:	92402	Zip ext:	Not Reported
Pop serv:	139789	Connection:	39453
Area serve:	SAN BERNARDINO		

Sample date:	23-JAN-18	Finding:	5.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

Sample date:	17-OCT-17	Finding:	5.
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

Sample date:	29-AUG-17	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	29-AUG-17	Finding:	4.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	29-AUG-17	Finding:	3.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	29-AUG-17	Finding:	42.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	29-AUG-17	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-AUG-17	Finding:	1.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-AUG-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-AUG-17	Finding:	1.5
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-AUG-17	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	340.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	1.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUL-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	1.
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	1.2
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	27-JUL-17	Finding:	4.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	27-JUL-17	Finding:	0.29
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	27-JUL-17	Finding:	26.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	27-JUL-17	Finding:	4.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JUL-17	Finding:	2.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	4.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	43.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	1.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUL-17	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUL-17	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-APR-17	Finding:	4.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	31-JAN-17	Finding:	5.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	25-OCT-16	Finding:	4.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	23-AUG-16	Finding:	42.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	1.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-16	Finding:	3.7
Chemical:	MAGNESIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	23-AUG-16	Finding:	210.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	23-AUG-16	Finding:	22.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-AUG-16	Finding:	3.1
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	26-JUL-16	Finding:	1.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUL-16	Finding:	2.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	26-JAN-16	Finding:	4.4
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	13-OCT-15	Finding:	4.8
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	04-AUG-15	Finding:	4.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-15	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-15	Finding:	210.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-15	Finding:	41.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	04-AUG-15	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	04-AUG-15	Finding:	6.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-AUG-15	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	04-AUG-15	Finding:	3.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-JUL-15	Finding:	6.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-JUL-15	Finding:	4.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	28-APR-15	Finding:	4.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	13-JAN-15	Finding:	4.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	21-OCT-14	Finding:	3.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	26-AUG-14	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	26-AUG-14	Finding:	3.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	3.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	44.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	5.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-AUG-14	Finding:	20.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	330.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	1500.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	29-JUL-14	Finding:	11.9
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	4.5
Chemical:	CARBON DIOXIDE	Report units:	UG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	6.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUL-14	Finding:	0.16
Chemical:	LANGELIER INDEX AT SOURCE TEMP.	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	4.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	29-JUL-14	Finding:	0.4
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	29-JUL-14	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	29-JUL-14	Finding:	4.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	3.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	42.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	29-JUL-14	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-APR-14	Finding:	4.
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	15-OCT-13	Finding:	4.1
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	20-AUG-13	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	20-AUG-13	Finding:	4.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	20-AUG-13	Finding:	42.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	20-AUG-13	Finding:	3.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	20-AUG-13	Finding:	20.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	20-AUG-13	Finding:	170.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	20-AUG-13	Finding:	5.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-13	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	4.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	16-JUL-13	Finding:	6.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-13	Finding:	4.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	22-JAN-13	Finding:	5.
Chemical:	ARSENIC	Report units:	UG/L

Dlr:	2.		
Sample date:	30-OCT-12	Finding:	3.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	24-JUL-12	Finding:	3.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	110.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	40.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	3.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	20.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	24-JUL-12	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-12	Finding:	4.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUL-12	Finding:	3.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	17-JUL-12	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	24-APR-12	Finding:	4.2
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	17-JAN-12	Finding:	4.
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

B9
NE
1/2 - 1 Mile
Higher

CA WELLS 143

Seq:	143	Prim sta c:	01N/04W-31N02 S
Frds no:	3610038006	County:	36

District:	13	User id:	TAN
System no:	3610038	Water type:	G
Source nam:	CITY WELL 04 - ABANDONED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	340700.0	Longitude:	1172100.0
Precision:	8	Status:	AB
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3610038	System nam:	Rialto-City
Hqname:	Not Reported	Address:	150 S PALM AVE
City:	RIALTO	State:	CA
Zip:	92376	Zip ext:	Not Reported
Pop serv:	48418	Connection:	11089
Area serve:	RIALTO		

B10
NE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000012197**

Well ID:	3610038-006	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	CITY WELL 04 - ABANDONED	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610038-006&store_num=		
GeoTracker Data:	Not Reported		

B11
NE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000002584**

Well ID:	3610039-034	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	LYTLE CREEK WELL 02	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610039-034&store_num=		
GeoTracker Data:	Not Reported		

C12
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000140979**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S005W12L001S	Type:	Well
Description:	NAWQA DATA ENTRY COM + VER 06/19/2000 SNHAMLIN		
HUC:	18070203	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	California Coastal Basin aquifers
Formation Type:	Cenozoic Erathem	Aquifer Type:	Unconfined single aquifer
Construction Date:	Not Reported	Well Depth:	590
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	4	Level reading date:	2004-06-09
Feet below surface:	241	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2000-05	Feet below surface:	211
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1992-07-01	Feet below surface:	222.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1992-01-08	Feet below surface:	244.43
Feet to sea level:	Not Reported	Note:	Not Reported

C13
South
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00006857**

Well ID:	USGS-340546117212501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340546117212501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-340546117212501&store_num=		
GeoTracker Data:	Not Reported		

C14
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000006774**

State Well #:	01S05W12L001S	Station ID:	46653
Well Name:	Well 16	Well Use:	Residential
Well Type:	Single Well	Well Depth:	590
Basin Name:	Rialto-Colton	Well Completion Rpt #:	Not Reported

---

D15
WNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00019272**

Well ID:	USGS-340643117222101	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340643117222101	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-340643117222101&store_num=		
GeoTracker Data:	Not Reported		

D16
WNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGS000002015**

Well ID:	USAWU-05	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	USAWU-05	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=USAWU-05&store_num=
GeoTracker Data: Not Reported

D17
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000141310**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S005W02K001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1929	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	828
Well Hole Depth Units:	ft		

E18
WNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00015047**

Well ID:	USGS-340652117221901	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340652117221901	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-340652117221901&store_num=
GeoTracker Data: Not Reported

E19
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000141350**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S005W02G001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19890315	Well Depth:	1000
Well Depth Units:	ft	Well Hole Depth:	1000
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1992-03-23
Feet below surface:	284.86	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E20
WNW
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00006972**

Well ID:	USGS-340654117222203	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-340654117222203	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-340654117222203&store_num=		
GeoTracker Data:	Not Reported		

E21
WNW
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000001501**

Well ID:	3610038-010	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	RIALTO WE LL 06 (ETIWANDA WELL)		
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610038-010&store_num=		
GeoTracker Data:	Not Reported		

E22
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000020023**

Well ID:	3610038-010	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	RIALTO WE LL 06 (ETIWANDA WELL)		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610038-010&store_num=		
GeoTracker Data:	Not Reported		

E23
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000006864**

State Well #:	01S05W02G001S	Station ID:	3057
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Rialto-Colton	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
24 **South** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000140943**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S005W12N001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	688
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

	Database	EDR ID Number
25 **East** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000141152**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001S004W07C001S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19280101	Well Depth:	537
Well Depth Units:	ft	Well Hole Depth:	570
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92376	12	0

Federal EPA Radon Zone for SAN BERNARDINO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN BERNARDINO COUNTY, CA

Number of sites tested: 18

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.678 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX E

VAPOR ENCROACHMENT

APPENDIX F

LABORATORY TEST RESULTS

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.:2576
Expiration Date: 2023
Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:
Mark Noorani

Client:	GeoTek, Inc.
Laboratory Reference:	GTK 26103
Project Name:	Rialto 8
Project Number:	2749-CR
Date Received:	4/26/2021
Date Reported:	4/27/2021
Chain of Custody Received:	☑
Analytical Method:	8081A,

Mark Noorani, Laboratory Director

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Rev1.0

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 1ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
#1 Comp	26103-001	4/26/2021	4/26/2021	Soil
#2 Comp	26103-002	4/26/2021	4/26/2021	Soil
#3 Comp	26103-003	4/26/2021	4/26/2021	Soil
#4 Comp	26103-004	4/26/2021	4/26/2021	Soil
#5 Comp	26103-005	4/26/2021	4/26/2021	Soil
#6 Comp	26103-006	4/26/2021	4/26/2021	Soil
#7 Comp	26103-007	4/26/2021	4/26/2021	Soil
#8 Comp	26103-008	4/26/2021	4/26/2021	Soil

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#1 Comp	26103-001	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 11:41	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	60

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#2 Comp	26103-002	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 11:56	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	54

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#3 Comp	26103-003	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 12:11	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	59

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#4 Comp	26103-004	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 12:26	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	59

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#5 Comp	26103-005	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 12:42	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	57

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#6 Comp	26103-006	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 12:57	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	57

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#7 Comp	26103-007	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 13:12	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	2.3
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	58

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
#8 Comp	26103-008	4/26/2021 11:35	4/26/2021	4/26/2021 15:30	4/27/2021 13:27	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	58

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

Ms. Anna Scott
GeoTek, Inc.
1548 N. Maple St
Corona, CA, 92880

Lab Reference # GTK 26103
Project Name: Rialto 8
Project #: 2749-CR

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBAT0426212			4/26/2021 15:30	4/27/2021 8:41	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	60

* Acceptable Recovery: 42-142 %

Dilution Factor: 1

Data Qualifiers: None

QA/QC Report
for
Organochlorine Pesticides (EPA 8081A)
Reporting Units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 4/27/2021 10:35
Date of Analysis: 4/27/2021 13:43
Dup Date of Analysis: 4/27/2021 13:58
Laboratory Sample #: 26103-001
MS/MSD Qualifiers: None
Reference #: GTK 26103

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Aldrin	0.00	20.0	20.8	20.3	104	101	2	30-130	33	--
alpha-BHC	0.00	20.0	18.2	17.7	91	89	3	30-150	30	--
beta-BHC	0.00	20.0	18.8	18.7	94	94	1	30-150	30	--
gamma-BHC (Lindane)	0.00	20.0	19.7	19.2	99	96	3	29-130	27	--
4,4'-DDD	0.00	20.0	27.2	26.4	136	132	3	30-150	30	--
4,4'-DDE	0.00	20.0	25.2	24.8	126	124	2	30-150	30	--
4,4'-DDT	0.00	20.0	25.3	24.8	126	124	2	47-151	21	--
delta-BHC	0.00	20.0	22.4	22.0	112	110	2	30-150	30	--
Dieldrin	0.00	20.0	22.8	22.6	114	113	1	33-136	23	--
Endosulfan I	0.00	20.0	21.8	21.3	109	106	2	30-150	30	--
Endosulfan II	0.00	20.0	21.5	22.3	108	112	4	30-150	30	--
Endosulfan sulfate	0.00	20.0	14.8	13.6	74	68	8	30-150	30	--
Endrin	0.00	20.0	24.8	24.4	124	122	2	40-139	25	--
Endrin Aldehyde	0.00	20.0	16.8	16.6	84	83	1	30-150	30	--
Endrin ketone	0.00	20.0	18.3	17.9	91	89	2	30-150	30	--
Heptachlor	0.00	20.0	20.7	20.4	104	102	1	28-130	32	--
Heptachlor epoxide	0.00	20.0	20.5	20.3	102	101	1	30-150	30	--
Methoxychlor	0.00	20.0	22.0	22.7	110	113	3	30-150	30	--

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Decachlorobiphenyl	58	57	☐

LCS	LCSD	Qual
91	121	☐

ACP % RC
42-142

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 4/26/2021 15:30
Date of Analysis: 4/27/2021 8:56
Dup Date of Analysis: 4/27/2021 9:12
Laboratory Sample #: AT0426212
LCS/LCSD Qualifiers: None

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Aldrin	20.0	10.9	9.72	54	49	11	27-130	30	--
alpha-BHC	20.0	9.73	8.57	49	43	13	40-140	30	--
beta-BHC	20.0	12.8	10.4	64	52	21	40-140	30	--
gamma-BHC (Lindane)	20.0	11.7	9.46	58	47	21	34-130	30	--
4,4'-DDD	20.0	20.0	19.8	100	99	1	40-140	30	--
4,4'-DDE	20.0	16.9	15.5	84	77	9	40-140	30	--

QA/QC Report
for
Organochlorine Pesticides (EPA 8081A)

Reporting Units: ppb

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
4,4'-DDT	20.0	18.5	18.7	93	94	1	45-147	20	--
delta-BHC	20.0	16.1	13.4	81	67	18	40-140	30	--
Dieldrin	20.0	14.9	13.1	75	66	13	42-130	20	--
Endosulfan I	20.0	13.9	11.9	69	59	16	40-140	30	--
Endosulfan II	20.0	16.6	16.8	83	84	1	40-140	30	--
Endosulfan sulfate	20.0	17.6	18.6	88	93	6	40-140	30	--
Endrin	20.0	15.8	14.1	79	71	11	47-130	20	--
Endrin Aldehyde	20.0	17.0	17.6	85	88	3	40-140	30	--
Endrin ketone	20.0	16.5	17.7	82	89	7	40-140	30	--
Heptachlor	20.0	10.6	9.37	53	47	12	25-130	29	--
Heptachlor epoxide	20.0	13.8	11.4	69	57	19	40-140	30	--
Methoxychlor	20.0	17.9	18.6	89	93	4	40-140	30	--

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: 26103
Page _____ of _____

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

REQUIRED TURN AROUND TIME: Standard: _____
72 Hours: _____ 48 Hours: _____ 24 Hours: ✓

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	Geotek	PROJECT NAME:	Rialto 8
SEND REPORT TO:	Anna Scott	NUMBER:	2749-CR
EMAIL:	ascott@geotekusa.com	ADDRESS:	N. Acacia Avenue & E. Foothill Blvd
ADDRESS:		P.O. #:	
PHONE:	FAX:	SAMPLED BY:	GP

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	ANALYSIS REQUEST / PRESERVATIVE: 8081A	REMARKS/PRECAUTIONS
#1 Comp	1	4/26/21	am	soil	glass		
#2							
#3							
#4							
#5							
#6							
#7							
#8							

Total No. of Samples: 8 Method of Shipment: Hand Delivery Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
GPOLLS	4/26/21 11:35		04/26/21 11:35
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix:
GW - Groundwater
WW - Wastewater
SW - Stormwater
DW - Drinking Water
W - Water
SS - Soil/Solid
OT - Other

Sample Integrity: IR#2
Intact: Y On Ice: (Yes) / No @ 1 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within

Sample Receipt Report

Laboratory Reference: **GTK 26103** Logged in by: AR

Received:	04/26/21 11:35	Company Name:	GeoTek, Inc.
Method of Shipment:	Hand Delivered	Project Manager:	Ms. Anna Scott
Shipping Container:	Cooler	Project Name:	Rialto 8
# Shipping Containers:	1	Project #:	2749-CR
Sample Quantity			

Chain of Custody		Complete ☑	Incomplete ☐	None ☐
Samples On Ice		Yes, Wet ☑	Yes, Blue ☐	No ☐
Observed Temp. (°C):	1	Thermometer ID: IR#2	Adjusted Temp.:	1+0=1
Shipping Intact		Yes ☑	N/A ☐	No ☐
Shipping Custody Seals Intact		Yes ☐	N/A ☑	No ☐
Samples Intact		Yes ☑		No ☐
Sample Custody Seals Intact		Yes ☐	N/A ☑	No ☐
Custody Seals Signed & Dated		Yes ☐	N/A ☑	No ☐
Proper Test Containers		Yes ☑		No ☐
Proper Test Preservations		Yes ☑		No ☐
Samples Within Hold Times		Yes ☑		No ☐
VOAs Have Zero Headspace		Yes ☐	N/A ☑	No ☐
Sample Labels		Complete ☑	Incomplete ☐	None ☐
Sample Information Matches COC		Yes ☑	N/A ☐	No ☐

Notes

Client Notified _____ By _____ On _____

APPENDIX G

PROJECT TEAM QUALIFICATIONS

Gabriela N. Pocius

Staff Geologist

Education

B.S., Geology, California State University, San Bernardino

B.S., Geology—Environmental Geology Option, California State University, San Bernardino

Certifications

APNGA: Nuclear Gauge Certification

Professional Experience

Ms. Gabriela Pocius has less than a year of geotechnical experience and has worked on a wide range of geotechnical projects throughout Southern California, Inland Empire, Orange County, and Los Angeles County. Her geotechnical experience has ranged from field and laboratory technician to field, and staff geologist. Ms. Pocius' responsibilities include preparation of proposals, preliminary geotechnical investigations, and field studies as a geologist for drilling projects. Ms. Pocius has performed Phase I ESAs for various property acquisitions and transfers in Kern, Riverside and San Bernardino Counties.

Employment History

GeoTek, Inc., Riverside-Staff Geologist August 2020 – Present

Anna M. Scott

Project Geologist

Education

B.S., Geology, University of California, Riverside

Professional Experience

Ms. Anna Scott has over 30 years of geotechnical experience and has worked on or managed a wide range of geotechnical projects throughout southern California, including the High Desert, Inland Empire, Antelope Valley, Coachella Valley, Orange County and Bakersfield area. Her geotechnical experience has ranged from field and laboratory technician to field, staff and project geologist. Ms. Scott's responsibilities include preparation of proposals, preliminary geotechnical investigations, seismic studies, settlement monitor installation and studies, and field studies as a technician and geologist for large grading projects. Ms. Scott has performed Phase I and II ESAs for various property acquisitions and transfers throughout southern California.

Representative Project Experience

Ms. Scott has worked on numerous projects throughout southern California. Her experience includes working with various entities including the public and private sectors. Her vast knowledge includes geotechnical, environmental and materials services. This experience has been attained through small and large projects over the numerous years of her career.

Employment History

GeoTek, Inc., Riverside-Project Geologist, February 2005 – Present

GeoSoils, Inc., Santa Ana, September 1987 – February 2005

Edward H. LaMont, CEG, PG

Branch Manager

Areas of Expertise

Geotechnical Field Investigations
Grading and Earthwork Construction
Industry Standard of Care
Hillside, Liquefaction, Seismic Hazard, Fault Analyses and Forensic Studies.

Education

Bachelor of Science in Geology, Cal State University, Northridge

Registrations

Registered Geologist, PG 6025
Certified Engineering Geologist, CEG 1892

Certifications

OSHA 40-Hr HAZWOPER Training
OSHA 8-Hour Refresher
First Aid/CPR

Professional Affiliations

Association of Engineering Geologist
South Coast Geological Society
San Diego Association of Geologist
Inland Geological Society
BIA Riverside
BIA San Diego

Professional Experience

Mr. LaMont has been involved with numerous public works, residential and commercial earthwork projects across the southern California area. Many residential, commercial and public works projects have been successfully completed across southern and central California. Projects include liquefaction and subsidence studies, fault evaluations, commercial, residential, federal, FEMA levee certifications and military construction projects. These projects have generally included preliminary geotechnical evaluations, slope stability studies, review and design recommendations, street improvements construction and testing services, and project management.

In addition, Mr. LaMont has performed governmental review of geotechnical reports for the County of Orange. Mr. LaMont has also completed geotechnical studies for the Riverside County Flood Control and Cities of Banning, Chino, Corona, Palm Springs, Lancaster and Victorville, to name a few.

Representative Project Experience

Project experience has included residential and commercial developments, for various land developers including Melia Homes, Meritage Homes, Frontier Enterprises, D·R·Horton, Beazer Homes, KB Home, Integral Communities, IntraCorp, Shopoff, Shea Homes, etc. Mr. LaMont has also completed geotechnical investigations and performed project management for numerous residential tracts and commercial facilities all across Southern California.

Professional History

Branch Manager/Principal Geologist - Riverside GeoTek, Inc., 2004 to present

Vice President, Principal Geologist - GeoSoils, Inc., Santa Ana, 2003 to 2004

Geotechnical Reviewer, Engineering Geologist - County of Orange, 2001 to 2003.

Project Geologist - GeoSoils, Inc., Santa Ana, California, 1994 to 2001.

Staff/Project Geologist - GeoSoils, Inc., Carlsbad, California, 1988 to 1994.

J. MICHAEL BATTEN, CAC, CEM, REPA

Principal/Environmental Services Manager

Education

BS in Geology, California State University, Fresno 1988

Registrations

- Certified Asbestos Consultant (CA #95-1721)
- Licensed Asbestos Abatement Consultant (NV #IJPM0655)
- Certified Environmental Manager (NV #1782)
- Asbestos Professional Inspector (IL #100-11092)
- Registered Environmental Property Assessor (#113162))
- Certified Lead Inspector Assessor (CA #4358)
- Certified Lead Inspector (EPA #LBP-I-1162326-1)
- Certified Lead Risk Assessor (EPA #LBP-R-1162326-1)

Certifications

- AHERA Certified Asbestos Building Inspector, Management Planner, Project Designer, & Contractor/Supervisor
- EPA Accredited Lead-based Paint Inspector & Risk Assessor
- OSHA HAZWOPER certified worker & supervisor
- OSHA Construction Safety & Health (10-Hour)

Affiliations

- American Society of Testing and Materials
- National Registry of Environmental Professionals

Professional Experience

Mr. Batten has over 30 years of environmental experience, throughout which he has conducted and managed numerous environmental investigations, assessments, and remediations. He has prepared several NEPA assessments, USEPA EIS, and CEQA EIR reports. In addition, Mr. Batten has extensive experience in conducting asbestos and lead-based paint surveys and preparing management plans, including remediation design, for asbestos and lead present in buildings.

Project Experience

- **Phase I Environmental Site Assessments:** Mr. Batten has conducted more than 2,000 Phase I Environmental Site Assessments in 27 states, including Brownfield studies under USEPA grants.
- **Phase II Environmental Site Assessments:** Mr. Batten has conducted more than 150 Phase II Environmental Assessments, including Brownfield studies under USEPA grants.
- **Site Characterizations and Remediations:** Mr. Batten has experience conducting numerous site characterizations and remediations, including obtaining regulatory closure.
- **NEPA Studies:** Mr. Batten has conducted more than 200 NEPA studies, including Environmental Assessments, Environmental Impact Reports/Environmental Impact Studies, in eight states. The agencies involved include USEPA, FCC, BLM, National Park Service, and California EPA.
- **Asbestos Services:** Mr. Batten has conducted over 600 asbestos surveys in several states. He has also prepared numerous Asbestos Management Plans, prepared design plans, and monitored numerous abatement projects.
- **Lead-Based Paint Services:** Mr. Batten has conducted numerous Lead-Based Paint surveys.
- **Landfills**: Mr. Batten has conducted investigations and overseen remediations on landfills in Fresno, California and Henderson, Nevada.
- **Other Services:** Mr. Batten has been called upon to conduct less usual services on occasion, including mold consultation and investigation, radon studies, vapor intrusion studies, and indoor air quality studies.

J. MICHAEL BATTEN, continued…

Professional History

Environmental Services Manager. GeoTek, Inc., 2001 to present.

Director of Environmental Services. ATC Associates, Inc., 1999 to 2001.

Director of Operations. Hygienetics Environmental Services, Inc., 1997 to 1999.

Project Manager. AllWest Environmental, Inc., 1996 to 1997.

Project Manager. Citadel Environmental Services, Inc., 2/1996 to 9/1996.

Project Manager. Boelter Environmental consultants, 3/1995 to 9/1995.

Senior Staff Geologist. Converse Consultants, 1992 to 1995.

Staff Geologist. Converse Environmental West, 1991 to 1992.

Project Geologist. Krazan and Associates, 1990 to 1991.

Environmental Technician. Krazan and Associates, 1989 to 1990.

National Registry of Environmental Professionals

For

Environmental Certifications

This is to Certify that

Michael J Batten

having sucessfully demonstrated to the Academic Board of this organization the required level of knowledge and ability, is here by awarded the distinction of

Registered Environmental Property Assessor

together with all rights, benefits and privileges attached thereto and that the name and title of the aforementioned registrant is today placed upon the register of the organization.

Given under our hands on this 15 day of June, 2013.

Richard A Young

Executive Director

NREP

113162

Registrant Number

This Certificate is the property of the National Registry of Environmental Professionals and must, upon demand, be returned.

1231

United States Environmental Protection Agency

This is to certify that



J M Batten

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Inspector

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires March 14, 2022

LBP-I-I162326-2
Certification #

December 08, 2018
Issued On

Adrienne Priselac, Manager, Toxics Office
Land Division

1232

United States Environmental Protection Agency

This is to certify that



J M Batten

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires March 14, 2022

LBP-R-I162326-2
Certification #

December 08, 2018
Issued On

Adrienne Priselac, Manager, Toxics Office
Land Division

1233

STATE OF CALIFORNIA — Gavin Newsom, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS
Division of Occupational Safety and Health
Asbestos Certification & Training Unit
1750 Howe Avenue, Suite 460
Sacramento, CA 95825
(916) 574-2993 Office http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov

505011721C 109 115

October 08, 2020

J. Michael Batten
8240 Edmond Street
Las Vegas NV 89139

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

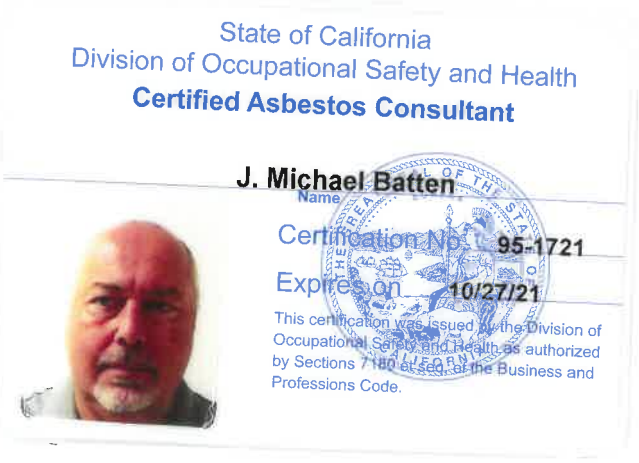
Please notify our office via U.S. Postal Service or other carrier of any changes in your mailing or work address within 15 days of the change.

Sincerely,

Jeff Ferrell
Senior Safety Engineer

Attachment: Certification Card

cc: File



Renewal – Card Attached (Revised 06/2020)

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
 **Michael Batten**	Lead Inspector/Assessor	LRC-00002629	11/17/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH
525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.dph.illinois.gov

MICHAEL BATTEN
8240 EDMOND STREET
LAS VEGAS, NV 89139

8/19/2020

ASBESTOS PROFESSIONAL LICENSE ID NUMBER: 11092

Enclosed is your Asbestos Professional License. Please note the expiration date on the card and in the image depicted below.

COPY OF THE ASBESTOS PROFESSIONAL LICENSE

Front of License

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
IDPH
PROTECTING HEALTH, IMPROVING LIVES

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 11092	**8/19/2020**	05/15/2021

MICHAEL BATTEN
8240 EDMOND STREET
LAS VEGAS, NV 89139
Environmental Health



Back of License

ENDORSEMENTS	TC EXPIRES
INSPECTOR	8/10/2021

Alteration of this license shall result in legal action
This license issued under authority of the State of Illinois Department of Public Health
This license is valid only when accompanied by a valid training course certificate.

If you have any questions or need further assistance, contact the Asbestos Program at (217)782-3517 or fax (217)785-5897.

Our WEB address is: dph.illinois.gov/topics-services/environmental-health-protection/asbestos
EMAIL Address: dph.asbestos@illinois.gov

State of Nevada

Department of Conservation and Natural Resources

Division of Environmental Protection

This is to certify that

Michael J Batten

having given satisfactory evidence of the necessary qualifications as required by the Nevada Revised Statute 459.400 to 459.600, inclusive, and Nevada Administrative Code 459.970 to 459.9729, inclusive, has been granted certification as a

Environmental Manager

in the State of Nevada

In testimony whereof, witness the signature of the Administrator and the Seal of the State of Nevada.

1782

Certification Number

Greg Lovato, Administrator

8/31/2021

Expiration Date

State of Nevada Department of Business & Industry

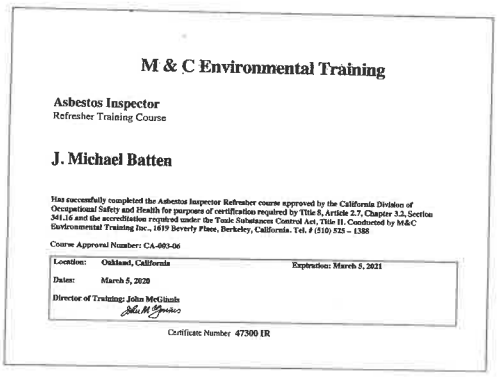
Industrial Relations (DIR)

STATE OF NEVADA
DEPARTMENT OF BUSINESS AND INDUSTRY
DIVISION OF INDUSTRIAL RELATIONS
Occupational Safety and Health Administration
Asbestos Control Program

Certifies That J. Michael Batten
Geotek Insite Inc.
is Licensed As Asbestos Abatement Consultant

License No. IJPM-655 Expiration Date 03/05/2021

Signature Of Licensee J. Michael Batten



M & C Environmental Training

Asbestos Inspector
Refresher Training Course

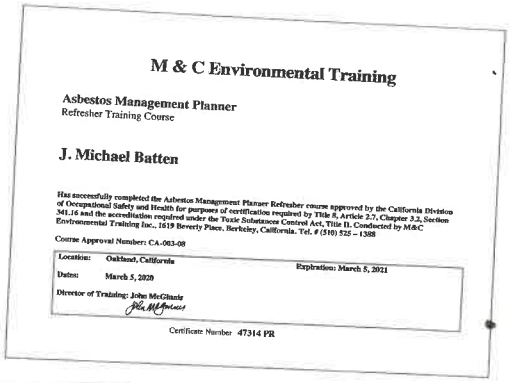
J. Michael Batten

Has successfully completed the Asbestos Inspector Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7, Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training Inc., 1619 Beverly Place, Berkeley, California. Tel. # (510) 525 – 1388

Course Approval Number: CA-003-06

Location: Oakland, California — Expiration: March 5, 2021
Dates: March 5, 2020
Director of Training: John McGinnis

Certificate Number 47300 IR



M & C Environmental Training

Asbestos Management Planner
Refresher Training Course

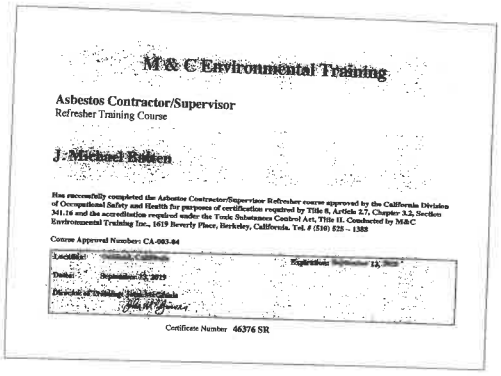
J. Michael Batten

Has successfully completed the Asbestos Management Planner Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7, Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training Inc., 1619 Beverly Place, Berkeley, California. Tel. # (510) 525 – 1388

Course Approval Number: CA-003-08

Location: Oakland, California — Expiration: March 5, 2021
Dates: March 5, 2020
Director of Training: John McGinnis

Certificate Number 47314 PR



M & C Environmental Training

Asbestos Contractor/Supervisor
Refresher Training Course

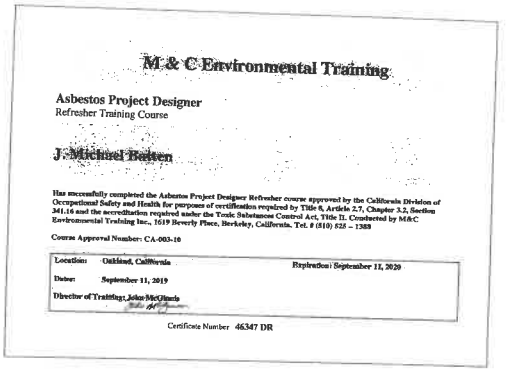
J. Michael Batten

Has successfully completed the Asbestos Contractor/Supervisor Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7, Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training Inc., 1619 Beverly Place, Berkeley, California. Tel. # (510) 525 – 1388

Course Approval Number: CA-003-04

Location: [illegible] — Expiration: [illegible]
Dates: September 11, 2019
Director of Training: John McGinnis

Certificate Number 46376 SR



M & C Environmental Training

Asbestos Project Designer
Refresher Training Course

J. Michael Batten

Has successfully completed the Asbestos Project Designer Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7, Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training Inc., 1619 Beverly Place, Berkeley, California. Tel. # (510) 525 – 1388

Course Approval Number: CA-003-10

Location: Oakland, California — Expiration: September 11, 2020
Dates: September 11, 2019
Director of Training: John McGinnis

Certificate Number 46347 DR



This is to Certify that
Michael Batten
Has Satisfactorily Completed Training in Accordance with Applicable Rules and Regulations
Asbestos Building Inspector Refresher
Completed: 3/19/2019 *Expires: 3/19/2020*
Certificate: BIR1903190998
2019
Occupational Training & Supply, Inc.
7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900



OSHA 002340551

U.S. Department of Labor
Occupational Safety and Health Administration

Michael Batten

has successfully completed a 10-hour Occupational Safety and Health Training Course in

Construction Safety & Health

Kenner Costen — (Trainer)
12/12/09 — (Date)

Appendix F

Preliminary Water Quality Management Plan

Preliminary
Water Quality Management Plan

For:

534 Foothill Blvd.

Prepared for:

Frontier Enterprises

2151 E. Convention Center Way, Suite 200

Ontario, CA

(909) 354-8000

Prepared by:

Huitt-Zollars, Inc.

2603 Main Street, Suite 400

Irvine, CA 92614

(949) 988-5815

Submittal Date: September 2, 2021

Revision Date: _____

Approval Date: _____

Project Owner's Certification

This Water Quality Management Plan (WQMP) has been prepared for Century Communities by Huitt-Zollars, Inc. The WQMP is intended to comply with the requirements of the City of Rialto and the NPDES Areawide Stormwater Program requiring the preparation of a WQMP. The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect 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. Once the undersigned transfers its interest in the property, its successors in interest and the city/county shall be notified of the transfer. The new owner will be informed of its responsibility under this WQMP. A copy of the approved WQMP shall be available on the subject site in perpetuity.

"I certify under a penalty of law that the provisions (implementation, operation, maintenance, and funding) of the WQMP have been accepted and that the plan will be transferred to future successors."

.

Project Data			
Permit/Application Number(s):	T.B.D.	Grading Permit Number(s):	T.B.D.
Tract/Parcel Map Number(s):	T.B.D.	Building Permit Number(s):	T.B.D.
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			0133-171-07,-08,-09, 20,-31

Owner's Signature		
Owner Name: Tim Nguyen		
Title	Director	
Company	Frontier Enterprises	
Address	2151 E. Convention Center Way, Suite 200	
Email	TNguyen@Frontier-Enterprises.com	
Telephone #	(909) 354-8000	
Signature	Date	

Preparer's Certification

Project Data			
Permit/Application Number(s):	T.B.D.	Grading Permit Number(s):	T.B.D.
Tract/Parcel Map Number(s):	T.B.D.	Building Permit Number(s):	T.B.D.
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			0133-171-07,-08,-09, 20,-31

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan were prepared under my oversight and meet the requirements of Regional Water Quality Control Board Order No. R8-2010-0036."

Engineer: Jeff Okamoto		PE Stamp Below
Title	Vice President	
Company	Huitt-Zollars, Inc.	
Address	2603 Main Street, Suite 400, Irvine, CA 92614	
Email	okamoto@huitt-zollars.com	
Telephone #	(949) 988-5815	
Signature		
Date		



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Attachment A - Existing Conditions and WQMP Exhibits

Attachment B - LID/HCOC BMP Sizing

Attachment C - Educational Materials

Attachment D - Referenced Materials

- WAP Report
- Image of Pre-Development

Attachment E - Geotechnical Report

Section 1 Discretionary Permit(s)

Form 1-1 Project Information					
Project Name	534 Foothill Blvd.				
Project Owner Contact Name:	Tim Nguyen				
Mailing Address:	2151 E. Convention Center Way, Suite 200, Ontario, CA 91764	E-mail Address:	TNguyen@Frontier-Enterprises.com	Telephone:	(909) 354-8000
Permit/Application Number(s):	T.B.D.		Tract/Parcel Map Number(s):	T.B.D.	
Additional Information/ Comments:	N/A				
Description of Project:	The project is located in the City of Rialto, in the County of San Bernardino, California. The proposed development consists of 198 apartment units. The proposed tract would develop approximately 7.78 acres of land into apartment buildings and private streets. All lots and common areas will be privately maintained. Maintenance of the underground infiltration basins will be the responsibility of the Home Owners Association. Perimeter public streets and parkway landscaping will be maintained by the City of Rialto.				
Provide summary of Conceptual WQMP conditions (if previously submitted and approved). Attach complete copy.	N/A				

Section 2 Project Description

2.1 Project Information

This section of the WQMP should provide the information listed below. The information provided for Conceptual WQMP should give sufficient detail to identify the major proposed site design and LID BMPs and other anticipated water quality features that impact site planning. Final Project WQMP must specifically identify all BMP incorporated into the final site design and provide other detailed information as described herein.

The purpose of this information is to help determine the applicable development category, pollutants of concern, watershed description, and long term maintenance responsibilities for the project, and any applicable water quality credits. This information will be used in conjunction with the information in Section 3, Site Description, to establish the performance criteria and to select the LID BMP or other BMP for the project or other alternative programs that the project will participate in, which are described in Section 4.

Form 2.1-1 Description of Proposed Project

1 Development Category (Select all that apply):

☐ Significant re-development involving the addition or replacement of 5,000 ft² or more of impervious surface on an already developed site	☒ New development involving the creation of 10,000 ft² or more of impervious surface collectively over entire site	☐ Automotive repair shops with standard industrial classification (SIC) codes 5013, 5014, 5541, 7532- 7534, 7536-7539	☐ Restaurants (with SIC code 5812) where the land area of development is 5,000 ft² or more
☐ Hillside developments of 5,000 ft² or more which are located on areas with known erosive soil conditions or where the natural slope is 25 percent or more	☐ Developments of 2,500 ft² of impervious surface or more adjacent to (within 200 ft) or discharging directly into environmentally sensitive areas or waterbodies listed on the CWA Section 303(d) list of impaired waters.	☐ Parking lots of 5,000 ft² or more exposed to storm water	☐ Retail gasoline outlets that are either 5,000 ft² or more, or have a projected average daily traffic of 100 or more vehicles per day

☐ Non-Priority / Non-Category Project *May require source control LID BMPs and other LIP requirements. Please consult with local jurisdiction on specific requirements*.

2 Project Area (ft2):	338,896.8	**3** Number of Dwelling Units:	198	**4** SIC Code:	6513

5 Is Project going to be phased? Yes ☐ No ☒ *If yes, ensure that the WQMP evaluates each phase as a distinct DA, requiring LID BMPs to address runoff at time of completion.*

6 Does Project include roads? Yes ☒ No ☐ *If yes, ensure that applicable requirements for transportation projects are addressed (see Appendix A of TGD for WQMP)*

2.2 Property Ownership/Management

Describe the ownership/management of all portions of the project and site. State whether any infrastructure will transfer to public agencies (City, County, Caltrans, etc.) after project completion. State if a homeowners or property owners association will be formed and be responsible for the long-term maintenance of project stormwater facilities. Describe any lot-level stormwater features that will be the responsibility of individual property owners.

Form 2.2-1 Property Ownership/Management

Describe property ownership/management responsible for long-term maintenance of WQMP stormwater facilities:

The future HOA will be responsible for maintenance of private streets, open space lots and underground private storm drains. HOA will be responsible for maintenance of the onsite underground infiltration chambers.

The HOA will be formed upon completion of the development. Upon completion, it is the owner's responsibility to transfer all operation and maintenance related activities, including a funding mechanism to the HOA.

At the completion of the project, the perimeter streets (Foothill Blvd) will be publicly dedicated and maintenance responsibility of the streets, parkways, and landscape will be turned over to the City of Rialto.

2.3 Potential Stormwater Pollutants

Determine and describe expected stormwater pollutants of concern based on land uses and site activities (refer to Table 3-3 in the TGD for WQMP).

Form 2.3-1 Pollutants of Concern			
Pollutant	Please check: E=Expected, N=Not Expected		Additional Information and Comments
Pathogens (Bacterial / Virus)	E ☒	N ☐	
Nutrients - Phosphorous	E ☒	N ☐	
Nutrients - Nitrogen	E ☒	N ☐	
Noxious Aquatic Plants	E ☐	N ☐	
Sediment	E ☒	N ☐	
Metals	E ☐	N ☒	Not identified in TGD Table 3.3 as a pollutant associated with residential development.
Oil and Grease	E ☒	N ☐	
Trash/Debris	E ☒	N ☐	
Pesticides / Herbicides	E ☒	N ☐	Pesticides, petroleum hydrocarbons, and vegetative debris are the most likely sources of organic contamination.
Organic Compounds	E ☒	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	

2.4 Water Quality Credits

Water quality credits are not applicable for this project site.

Form 2.4-1 Water Quality Credits

1 Project Types that Qualify for Water Quality Credits: *Select all that apply*

☐ Redevelopment projects that reduce the overall impervious footprint of the project site. [Credit = % impervious reduced]	Higher density development projects ☐ Vertical density [20%] ☒ 7 units/ acre [5%]	☐ Mixed use development, (combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that demonstrate environmental benefits not realized through single use projects) [20%]	☐ Brownfield redevelopment (redevelop real property complicated by presence or potential of hazardous
☐ Redevelopment projects in established historic district, historic preservation area, or similar significant core city center areas [10%]	☐ Transit-oriented developments (mixed use residential or commercial area designed to maximize access to public transportation) [20%]	☒ In-fill projects (conversion of empty lots & other underused spaces < 5 acres, substantially surrounded by urban land uses, into more beneficially used spaces, such as residential or commercial areas) [10%]	☐ Live-Work developments (variety of developments designed to support residential and vocational needs) [20%]

2 Total Credit % 15 *(Total all credit percentages up to a maximum allowable credit of 50 percent)*

Description of Water Quality Credit Eligibility (if applicable)	Proposed project site density is 25.45 DU/AC

Section 3 Site and Watershed Description

The existing site consists of 7.78 acres of dry vacant land. A high point roughly splits the project site in half. In both drainage areas, terrain slopes southeasterly towards Foothill Boulevard.

An earthen ditch borders the property on the northern and eastern sides of the project site to presumably prevent offsite runoff from flowing onto the property. The ditch remains fairly level with no inlets indicating that stormwater is detained in the ditch. The remaining runoff sheetflows off the project site onto Foothill before being conveyed as streetflow eastward towards the Rialto Channel.

In the proposed condition, all lots will be graded for runoff to be captured in onsite catch basins. The catch basins will be sized to capture all onsite runoff and convey it to the proposed onsite storm drain infrastructure and underground infiltration chambers.

High flows will overflow from the chambers into an overflow pipe that will discharge to Foothill Blvd at mitigated flow rates.

Underlying soils are described in the geotechnical report that has been provided.

The forms below include details on the existing hydrologic characteristics.

Form 3-1 Site Location and Hydrologic Features

Site coordinates *take GPS measurement at approximate center of site*	Latitude 34.1076°	Longitude -117.3601°	Thomas Bros Map page 605

1 San Bernardino County climatic region: ☒ Valley ☐ Mountain

2 Does the site have more than one drainage area (DA): Yes☒ No☐ *If no, proceed to Form 3-2. If yes, then use this form to show a conceptual schematic describing DMAs and hydrologic feature connecting DMAs to the site outlet(s). An example is provided below that can be modified for proposed project or a drawing clearly showing DMA and flow routing may be attached*



Conveyance	Offsite flow is currently conveyed through: • Offsite runoff from Foothill Blvd is conveyed through street curbs. The project proposes to improve the street curbs to 8-inch tall curbs as well as gutters. • Offsite runoff from the north is collected in an existing ditch. The project proposes to improve the ditch and construct an inlet and conveyance to Foothill Blvd.
DA1 to Outlet 1	DA1 sheetflows to the southeast onto Foothill Blvd.
DA2 to Outlet 2	DA2 sheetflows to the southeast onto Foothill Blvd.

Form 3-2 Existing Hydrologic Characteristics for Drainage Area 1				
For Drainage Area 1's sub-watershed DMA, provide the following characteristics	N/A			
1 DMA drainage area (ft^2)	158,994			
2 Existing site impervious area (ft^2)	0			
3 Antecedent moisture condition *For desert areas, use http://www.sbcounty.gov/dpw/floodcontrol/pdf/20100412_map.pdf*	1			
4 Hydrologic soil group *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	A			
5 Longest flowpath length (ft)	685			
6 Longest flowpath slope (ft/ft)	0.010			
7 Current land cover type(s) *Select from Fig C-3 of Hydrology Manual*	Undeveloped			
8 Pre-developed pervious area condition: *Based on the extent of wet season vegetated cover good >75%; Fair 50-75%; Poor <50% Attach photos of site to support rating*	Poor			

Form 3-2 Existing Hydrologic Characteristics for Drainage Area 2				
For Drainage Area 1's sub-watershed DMA, provide the following characteristics	N/A			
1 DMA drainage area (ft^2)	180,338			
2 Existing site impervious area (ft^2)	0			
3 Antecedent moisture condition *For desert areas, use http://www.sbcounty.gov/dpw/floodcontrol/pdf/20100412_map.pdf*	1			
4 Hydrologic soil group *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	A			
5 Longest flowpath length (ft)	623			
6 Longest flowpath slope (ft/ft)	0.0096			
7 Current land cover type(s) *Select from Fig C-3 of Hydrology Manual*	Undeveloped			
8 Pre-developed pervious area condition: *Based on the extent of wet season vegetated cover good >75%; Fair 50-75%; Poor <50% Attach photos of site to support rating*	Poor			

Form 3-3 Watershed Description for Drainage Area

Receiving waters *Refer to Watershed Mapping Tool - http://permitrack.sbcounty.gov/wap/ See 'Drainage Facilities" link at this website*	Closest receiving water: Facility Name: Rialto Channel Santa Ana River-Reach4, Reach 3, Reach 2 and Reach 1
Applicable TMDLs *Refer to Local Implementation Plan*	None identified by the WAP Tool.
303(d) listed impairments *Refer to Local Implementation Plan and Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/ and State Water Resources Control Board website – http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/index.shtml*	Bacteria (Fecal Indicator Bacteria); Metals (Copper, Lead); Salinity (Salinity/TDS/Chlorides); Toxicity (Toxicity)
Environmentally Sensitive Areas (ESA) *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	No Environmentally Sensitive Areas (ESA) within 200'
Unlined Downstream Water Bodies *Refer to Watershed Mapping Tool – http://permitrack.sbcounty.gov/wap/*	Santa Ana River
Hydrologic Conditions of Concern	☒ Yes *Complete Hydrologic Conditions of Concern (HCOC) Assessment. Include Forms 4.2-2 through Form 4.2-5 and Hydromodification BMP Form 4.3-10 in submittal* ☐ No
Watershed–based BMP included in a RWQCB approved WAP	☐ Yes *Attach verification of regional BMP evaluation criteria in WAP* • *More Effective than On-site LID* • *Remaining Capacity for Project DCV* • *Upstream of any Water of the US* • *Operational at Project Completion* • *Long-Term Maintenance Plan* ☒ No

Section 4 Best Management Practices (BMP)

4.1 Source Control BMP

4.1.1 Pollution Prevention

Non-structural and structural source control BMP are to be incorporated into this project. Form 4.1-1 and 4.1-2 describe specific source control BMPs used in the WQMP and to explain why a certain BMP is not applicable. Below lists non-structural and structural source control BMPs used at this project site.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N1	Education of Property Owners, Tenants and Occupants on Stormwater BMPs	☒	☐	Prior to building occupancy, builder will provide educational materials to tenants to inform them of their potential impacts to downstream water quality. Materials include those described in Section VI of this WQMP and provided in Attachment C of this WQMP.
N2	Activity Restrictions	☒	☐	Activity restrictions to minimize potential impacts to water quality and with the purpose of protecting water quality will be prescribed by the project's Covenant, Conditions and Restrictions (CC&Rs), or other equally effective measure.
N3	Landscape Management BMPs	☒	☐	Maintenance activities for landscape areas shall be consistent with County and manufacturer guidelines for fertilizer and pesticide use. Maintenance includes trimming, weeding and debris removal and vegetation planting and replacement. Stockpiled materials during maintenance activities shall be placed away from drain inlets and runoff conveyance devices. Wastes shall be properly disposed of or recycled. Maintenance for common areas and landscape parking islands is scheduled by future HOA.
N4	BMP Maintenance	☒	☐	Responsibility for implementation, inspection and maintenance of all BMPs (structural and non-structural) shall be consistent with the BMP Inspection and Maintenance Responsibilities Matrix provided in Section V of this WQMP, with documented records of

Form 4.1-1 Non-Structural Source Control BMPs				
				inspections and maintenance activities completed. Cleaning of all structural BMP Facilities is scheduled by future HOA.
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	The proposed residential development will not generate waste subject to Title 22 CCR Compliance.
N6	Local Water Quality Ordinances	☒	☐	Prior to obtaining a grading or building permit a Storm Water Quality Management Plan (SWQMP) must be provided to the city Engineer on a document provided by the City of Rialto. Once the SWQMP is approved the owner of the project shall submit a SWQMP agreement.
N7	Spill Contingency Plan	☐	☒	Project is residential development.
N8	Underground Storage Tank Compliance	☐	☒	Project is residential development.
N9	Hazardous Materials Disclosure Compliance	☐	☒	Project is residential development.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N10	Uniform Fire Code Implementation	☒	☐	The proposed residential project will comply with Fire Code Implementation.
N11	Litter/Debris Control Program	☒	☐	Litter control onsite will include the use of litter patrols, violation reporting and clean up during landscaping maintenance activities and as needed to ensure good housekeeping of the project's common areas.
N12	Employee Training	☒	☐	All employees, contractors and subcontractors of the property management shall be trained on the proper use and staging of landscaping and other materials with the potential to impact runoff and proper clean-up of spills and materials.
N13	Housekeeping of Loading Docks	☐	☒	Project is residential development.
N14	Catch Basin Inspection Program	☒	☐	As required by the TGD, at least 80% of the project's private drainage facilities shall be inspected, cleaned/maintained annually, with 100% of facilities inspected and maintained within a two-year period. Drainage facilities include catch basins (storm drain inlets), detention basins, retention basins, sediment basins, open drainage channels, and lift stations.
N15	Vacuum Sweeping of Private Streets and Parking Lots	☒	☐	The project's private streets shall be swept, at minimum, prior to the start of the traditional rainy season and as needed.
N16	Other Non-structural Measures for Public Agency Projects	☐	☒	No other non-structural measures required.
N17	Comply with all other applicable NPDES permits	☐	☒	No other applicable NPDES permits required.

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S1	Provide storm drain system stencilling and signage (CASQA New Development BMP Handbook SD-13)	☒	☐	Storm drain stencils or signage prohibiting dumping and discharge of materials ("No Dumping – Drains to Ocean") shall be provided adjacent to each of the project's proposed inlets. The stencils shall be inspected and re-stenciled as needed to maintain legibility.
S2	Design and construct outdoor material storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-34)	☐	☒	Project does not propose outdoor storage areas.
S3	Design and construct trash and waste storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-32)	☒	☐	Designated trash enclosures are proposed for the project.
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control (Statewide Model Landscape Ordinance; CASQA New Development BMP Handbook SD-12)	☒	☐	In conjunction with routine landscaping maintenance activities, inspect irrigation for signs of leaks, overspray and repair or adjust accordingly. Adjust system cycle to accommodate seasonal fluctuations in water demand and temperatures. Ensure use of native or drought tolerant/non-invasive plant species to minimize water consumption.
S5	Finish grade of landscaped areas at a minimum of 1-2 inches below top of curb, sidewalk, or pavement	☒	☐	Landscape areas are depressed.
S6	Protect slopes and channels and provide energy dissipation (CASQA New Development BMP Handbook SD-10)	☐	☒	Project site doesn't have a channel.
S7	Covered dock areas (CASQA New Development BMP Handbook SD-31)	☐	☒	Project does not propose dock areas.
S8	Covered maintenance bays with spill containment plans (CASQA New Development BMP Handbook SD-31)	☐	☒	Project does not propose maintenance bays.
S9	Vehicle wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	Project does not propose vehicle wash areas.

S10	Covered outdoor processing areas (CASQA New Development BMP Handbook SD-36)	☐	☒	Project does not propose outdoor processing area.

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S11	Equipment wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	Project does not propose equipment wash areas.
S12	Fueling areas (CASQA New Development BMP Handbook SD-30)	☐	☒	Project does not propose fueling areas.
S13	Hillside landscaping (CASQA New Development BMP Handbook SD-10)	☐	☒	Hillside slopes are located outside of project boundaries.
S14	Wash water control for food preparation areas	☐	☒	Project does not propose food preparation areas.
S15	Community car wash racks (CASQA New Development BMP Handbook SD-33)	☐	☒	Project does not propose car wash racks.

4.1.2 Preventative LID Site Design Practices

The primary goal of site design principles and techniques is to reduce land development impacts on water quality and downstream hydrologic conditions. Benefits of site design include reductions in the size of downstream BMPs, conveyance systems, pollutant loading and hydromodification impacts.

The following section describes the site design BMPs that have been incorporated to the MEP into this project.

Minimize Impervious Area

Impervious areas were selected based on the preliminary Site Plan.

Maximize Natural Infiltration Capacity

The project proposes the implementation of a water quality infiltration basin at the location where infiltration has been identified as feasible by geotechnical investigations.

Preserve Existing Drainage Patterns and Time of Concentration

The drainage areas are consistent with that identified in the City of Rialto Master Plan of Drainage. A proposed storm drain system is to be constructed throughout the project site.

Disconnect Impervious Areas

Where feasible, runoff from the pads is drained towards pervious areas. Runoff from the roof is collected by downspouts and discharged over pervious areas.

Protect Existing Vegetation and Sensitive Areas, and Revegetate Disturbed Areas

All pervious areas will be revegetated with native and/or tolerant landscaping, consistent with the preliminary Site Plan.

Xeriscape Landscaping

Native and/or tolerant landscaping will be incorporated into the site design consistent with the preliminary Site Plan.

Infiltration basins are designed to detain and infiltrate the runoff volume from the water quality design storm (e.g., the 85th percentile 24-hour event) within a duration time set by local vector control regulations. Per the San Bernardino County TGD, the water quality design storm shall be equivalent to the calculated water quality captured volume (DCV). Particles and gross pollutants settle out to the bottom of the basin. Other pollutants are filtered within the native soil separating the invert of the basin and the water table. Incidental evapotransporation may also occur.

Per the MS4 permit, the Regional infiltration basin will be designed to contain a "water quality pool" sized to meet the maximized stormwater capture volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998). The water quality pool is designed to drain in 48 hours. In areas where native infiltration rates do not allow for a drawdown time under 48 hours, the San Bernardino County TGD allows for a drawdown time of 96 hours applied to infiltration facilities. The 96-hour limit is determined by local vector control regulations.

Consistent with the MS4 Permit, the LID BMP's for onsite retention incorporated into this project include construction of infiltration BMP and biotreatment BMP. Exhibit A shows the tributary areas of the different BMP's for this project.

Form 4.1-3 Preventative LID Site Design Practices Checklist

Site Design Practices

If yes, explain how preventative site design practice is addressed in project site plan. If no, other LID BMPs must be selected to meet targets

Minimize impervious areas: Yes ☒ No ☐

Explanation: Impervious areas were selected based on preliminary Site Plan.

Maximize natural infiltration capacity: Yes ☒ No ☐

Explanation: Infiltration basins are implemented where feasible. Roof drains will discharge runoff towards pervious area of each lot, indirectly connecting impervious areas before runoff reaches the onsite storm drain infrastructure.

Preserve existing drainage patterns and time of concentration: Yes ☒ No ☐

Explanation: Drainage patterns of the three tributaries that drain through the project will remain unchanged. The time of concentration resulting from the project improvements will be mitigated, if not enhanced, through detention by the proposed LID basins, as well as providing additional protection against flooding.

Disconnect impervious areas: Yes ☒ No ☐

Explanation: Where feasible, runoff from the pads is drained towards pervious areas. Runoff from the roof is collected by downspouts and discharged over pervious areas.

Protect existing vegetation and sensitive areas: Yes ☐ No ☒

Explanation: No existing vegetation to be protected.

Re-vegetate disturbed areas: Yes ☒ No ☐

Explanation: Some residential lots will typically have turf.

Minimize unnecessary compaction in stormwater retention/infiltration basin/trench areas: Yes ☒ No ☐

Explanation: Construction plans will identify that heavy equipment is prohibited in the vicinity of the proposed infiltration chambers.

Utilize vegetated drainage swales in place of underground piping or imperviously lined swales: Yes ☐ No ☒

Explanation: The majority of the site drains to an infiltration basin. Vegetated swales are not necessary.

Stake off areas that will be used for landscaping to minimize compaction during construction : Yes ☐ No ☒

Explanation: Only minor grading will occur over the site.

4.2 Project Performance Criteria

The project site utilizes both LID BMP Design Capture Volume (DCV) and analysis of HCOC for the pre-and post-development hydrologic calculation. Form 4.2-1 below computes the DCV for the two drainage areas onsite. Forms 4.2-2 through Form 4.2-5 below includes pre-and post-development hydrologic calculations for the drainage areas onsite. Refer to Attachment A for the water quality map.

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA 1)

1 Project area DA 1 (ft^2): 153,331	**2** Imperviousness after applying preventative site design practices (Imp%): 0.80	**3** Runoff Coefficient (Rc): 0.5993 *$R_c = 0.858(Imp\%)^{\wedge 3} - 0.78(Imp\%)^{\wedge 2} + 0.774(Imp\%) + 0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.602 http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.8914 *P_6 = Item 4 *C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Valley = 1.4807; Mountain = 1.909; Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 13,399 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA 2)

1 Project area DA 1 (ft^2): 185,566	**2** Imperviousness after applying preventative site design practices (Imp%): 0.80	**3** Runoff Coefficient (Rc): 0.5993 *$R_c = 0.858(Imp\%)^{\wedge 3} - 0.78(Imp\%)^{\wedge 2} + 0.774(Imp\%) + 0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.602 http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.8914 *P_6 = Item 4 *C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Valley = 1.4807; Mountain = 1.909; Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 16,216 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

Form 4.2-2 Summary of HCOC Assessment (DA 1)

Does project have the potential to cause or contribute to an HCOC in a downstream channel: Yes ☒ No ☐

Go to: *http://permitrack.sbcounty.gov/wap/*

If "Yes", then complete HCOC assessment of site hydrology for 2yr storm event using Forms 4.2-3 through 4.2-5 and insert results below

(Forms 4.2-3 through 4.2-5 may be replaced by computer software analysis based on the San Bernardino County Hydrology Manual)

If "No," then proceed to Section 4.3 Project Conformance Analysis

Condition	Runoff Volume (ft^3)	Time of Concentration (min)	Peak Runoff (cfs)
Pre-developed	**1** 6,859 *Form 4.2-3 Item 12*	**2** 17.55 *Form 4.2-4 Item 13*	**3** 3.68 *Form 4.2-5 Item 10*
Post-developed	**4** 16,238 *Form 4.2-3 Item 13*	**5** 10.87 *Form 4.2-4 Item 14*	**6** 9.82 *Form 4.2-5 Item 14*
Difference	**7** 9,379 *Item 4 – Item 1*	**8** 6.68 *Item 2 – Item 5*	**9** 6.14 *Item 6 – Item 3*
Difference (as % of pre-developed)	**10** 137% *Item 7 / Item 1*	**11** 38.1% *Item 8 / Item 2*	**12** 167% *Item 9 / Item 3*

Form 4.2-2 Summary of HCOC Assessment (DA 2)

Does project have the potential to cause or contribute to an HCOC in a downstream channel: Yes ☒ No ☐

Go to: *http://permitrack.sbcounty.gov/wap/*

If "Yes", then complete HCOC assessment of site hydrology for 2yr storm event using Forms 4.2-3 through 4.2-5 and insert results below *(Forms 4.2-3 through 4.2-5 may be replaced by computer software analysis based on the San Bernardino County Hydrology Manual)*

If "No," then proceed to Section 4.3 Project Conformance Analysis

Condition	Runoff Volume (ft^3)	Time of Concentration (min)	Peak Runoff (cfs)
Pre-developed	**1** 7,780 *Form 4.2-3 Item 12*	**2** 17.31 *Form 4.2-4 Item 13*	**3** 4.28 *Form 4.2-5 Item 10*
Post-developed	**4** 19,651 *Form 4.2-3 Item 13*	**5** 11.39 *Form 4.2-4 Item 14*	**6** 11.12 *Form 4.2-5 Item 14*
Difference	**7** 11,871 *Item 4 – Item 1*	**8** 5.92 *Item 2 – Item 5*	**9** 6.84 *Item 6 – Item 3*
Difference (as % of pre-developed)	**10** 153% *Item 7 / Item 1*	**11** 34.2% *Item 8 / Item 2*	**12** 160% *Item 9 / Item 3*

Form 4.2-3 HCOC Assessment for Runoff Volume (DA 1)

Weighted Curve Number Determination for: Pre-developed DA	DA-1							
1a Land Cover type	Agriculture Pasture/ Dryland							
2a Hydrologic Soil Group (HSG)	A							
3a DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	158,994							
4a Curve Number (CN) *use Items 1 and 2 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	68							
Weighted Curve Number Determination for: Post-developed DA	DMA - 1A	DMA – 1B						
1b Land Cover type	Apartments	Apartments						
2b Hydrologic Soil Group (HSG)	A	A						
3b DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	54,450	98,881						
4b Curve Number (CN) *use Items 5 and 6 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	83	83						

5 Pre-Developed area-weighted CN: 68	**7** Pre-developed soil storage capacity, S (in): 4.70 *S = (1000 / Item 5) - 10*	**9** Initial abstraction, I_a (in): 0.94 *I_a = 0.2 * Item 7*
6 Post-Developed area-weighted CN: 83	**8** Post-developed soil storage capacity, S (in): 2.05 *S = (1000 / Item 6) - 10*	**10** Initial abstraction, I_a (in): 0.41 *I_a = 0.2 * Item 8*

11 Precipitation for 2 yr, 24 hr storm (in): 2.78
Go to: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html

12 Pre-developed Volume (ft^3): 6,859
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 9)^2 / ((Item 11 – Item 9 + Item 7)*

13 Post-developed Volume (ft^3): 16,238
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 10)^2 / ((Item 11 – Item 10 + Item 8)*

14 Volume Reduction needed to meet HCOC Requirement, (ft^3): 8,567
*V_{HCOC} = (Item 13 * 0.95) – Item 12*

Form 4.2-3 HCOC Assessment for Runoff Volume (DA 2)

Weighted Curve Number Determination for: Pre-developed DA	DA-2						
1a Land Cover type	Agriculture Pasture/ Dryland						
2a Hydrologic Soil Group (HSG)	A						
3a DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	180,338						
4a Curve Number (CN) *use Items 1 and 2 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	68						
Weighted Curve Number Determination for: Post-developed DA	DMA – 2A	DMA – A2	DMA – 2C				
1b Land Cover type	Apartments	Apartments	Apartments				
2b Hydrologic Soil Group (HSG)	A	A	A				
3b DMA Area, ft^2 *sum of areas of DMA should equal area of DA*	60,984	65,775	58,806				
4b Curve Number (CN) *use Items 5 and 6 to select the appropriate CN from Appendix C-2 of the TGD for WQMP*	83	83	83				

5 Pre-Developed area-weighted CN: 68	**7** Pre-developed soil storage capacity, S (in): 4.70 *S = (1000 / Item 5) - 10*	**9** Initial abstraction, I_a (in): 0.94 *I_a = 0.2 * Item 7*
6 Post-Developed area-weighted CN: 83	**8** Post-developed soil storage capacity, S (in): 2.05 *S = (1000 / Item 6) - 10*	**10** Initial abstraction, I_a (in): 0.41 *I_a = 0.2 * Item 8*

11 Precipitation for 2 yr, 24 hr storm (in): 2.78
Go to: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html

12 Pre-developed Volume (ft^3): 7,780
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 9)^2 / ((Item 11 – Item 9 + Item 7)*

13 Post-developed Volume (ft^3): 19,651
*V_{pre} =(1 / 12) * (Item sum of Item 3) * [(Item 11 – Item 10)^2 / ((Item 11 – Item 10 + Item 8)*

14 Volume Reduction needed to meet HCOC Requirement, (ft^3): 10,888
*V_{HCOC} = (Item 13 * 0.95) – Item 12*

Form 4.2-4 HCOC Assessment for Time of Concentration (DA 1)

Compute time of concentration for pre and post developed conditions for each DA *(For projects using the Hydrology Manual complete the form below)*

Variables	Pre-developed DA 1 *Use additional forms if there are more than 4 DMA*				Post-developed DA 1 *Use additional forms if there are more than 4 DMA*			
					DMA 1A	DMA 1B		
1 Length of flowpath (ft) *Use Form 3-2 Item 5 for pre-developed condition*	685				408	407		
2 Change in elevation (ft)	7.0				3.9	2.7		
3 Slope (ft/ft), *S_o = Item 2 / Item 1*	0.01				0.0096	0.0066		
4 Land cover	Barren				Apartments	Apartments		
5 Initial DMA Time of Concentration (min) *Appendix C-1 of the TGD for WQMP*	(From AES Calculations. See attachment D)				(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)		
6 Length of conveyance from DMA outlet to project site outlet (ft) *May be zero if DMA outlet is at project site outlet*								
7 Cross-sectional area of channel (ft^2)								
8 Wetted perimeter of channel (ft)								
9 Manning's roughness of channel (n)								
10 Channel flow velocity (ft/sec) *V_{fps} = (1.49 / Item 9) * (Item 7/Item 8)^0.67 * (Item 3)^0.5*	(See AES calculations attachment D)				(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)		
11 Travel time to outlet (min) *T_t = Item 6 / (Item 10 * 60)*								
12 Total time of concentration (min) *T_c = Item 5 + Item 11*	17.55				10.87			

13 Pre-developed time of concentration (min): 17.55 *Minimum of Item 12 pre-developed DMA*

14 Post-developed time of concentration (min): 10.87 *Minimum of Item 12 post-developed DMA*

15 Additional time of concentration needed to meet HCOC requirement (min): 5.80 *$T_{C\text{-}HCOC}$ = (Item 13 * 0.95) – Item 14*

Form 4.2-4 HCOC Assessment for Time of Concentration (DA 2)

Compute time of concentration for pre and post developed conditions for each DA *(For projects using the Hydrology Manual complete the form below)*

Variables	Pre-developed DA 2 *Use additional forms if there are more than 4 DMA*				Post-developed DA 2 *Use additional forms if there are more than 4 DMA*			
					DMA 2A	DMA 2B	DMA 2C	
1 Length of flowpath (ft) *Use Form 3-2 Item 5 for pre-developed condition*	623				414	396	258	
2 Change in elevation (ft)	6.0				5.8	2.0	1.3	
3 Slope (ft/ft), *S_o = Item 2 / Item 1*	0.0096				0.014	0.005	0.005	
4 Land cover	Barren				Apartments	Apartments	Apartments	
5 Initial DMA Time of Concentration (min) *Appendix C-1 of the TGD for WQMP*	(From AES Calculations. See attachment D)				(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)	
6 Length of conveyance from DMA outlet to project site outlet (ft) *May be zero if DMA outlet is at project site outlet*								
7 Cross-sectional area of channel (ft^2)								
8 Wetted perimeter of channel (ft)								
9 Manning's roughness of channel (n)								
10 Channel flow velocity (ft/sec) *V_{fps} = (1.49 / Item 9) * (Item 7/Item 8)^0.67 * (Item 3)^0.5*	(See AES calculations attachment D)				(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)	(From AES Calculations. See attachment D)	
11 Travel time to outlet (min) *T_t = Item 6 / (Item 10 * 60)*								
12 Total time of concentration (min) *T_c = Item 5 + Item 11*	17.31				11.39			

13 Pre-developed time of concentration (min): 17.31 *Minimum of Item 12 pre-developed DMA*

14 Post-developed time of concentration (min): 11.39 *Minimum of Item 12 post-developed DMA*

15 Additional time of concentration needed to meet HCOC requirement (min): 5.05 *$T_{C\text{-}HCOC}$ = (Item 13 * 0.95) – Item 14*

Form 4.2-5 HCOC Assessment for Peak Runoff (DA 1)

Compute peak runoff for pre- and post-developed conditions

Variables		Pre-developed DMA to Project Outlet			Post-developed DMA to Project Outlet		
					DMA 1A	DMA 1B	
1 Rainfall Intensity for storm duration equal to time of concentration *I_{peak} = 10^(LOG Form 4.2-1 Item 4 - 0.6 LOG (Form 4.2-4 Item 5 /60))*		1.70			3.29		
2 Drainage Area of each DMA (Acres) *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		3.65			1.25	2.27	
3 Ratio of pervious area to total area *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		1.00			0.20		
4 Pervious area infiltration rate (in/hr) *Use pervious area CN and antecedent moisture condition with Appendix C-3 of the TGD for WQMP*		0.58			0.94		
5 Maximum loss rate (in/hr) *F_m = Item 3 * Item 4* *Use area-weighted F_m from DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include*		0.58			0.19		
6 Peak Flow from DMA (cfs) *Q_p =Item 2 * 0.9 * (Item 1 - Item 5)*		3.68			9.82		
7 Time of concentration adjustment factor for other DMA to site discharge point *Form 4.2-4 Item 12 DMA / Other DMA upstream of site discharge point (If ratio is greater than 1.0, then use maximum value of 1.0)*	DA 1	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
	DA 2	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
	DA 3	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*

8 Pre-developed Q_p at T_c for DMA A: 3.68 *Q_p = Item 6_{DMAA} + [Item 6_{DMAB} * (Item 1_{DMAA} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAA/2}$] + [Item 6_{DMAC} * (Item 1_{DMAA} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAA/3}$]*

9 Pre-developed Q_p at T_c for DMA B: n/a *Q_p = Item 6_{DMAB} + [Item 6_{DMAA} * (Item 1_{DMAB} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAB/1}$] + [Item 6_{DMAC} * (Item 1_{DMAB} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAB/3}$]*

10 Pre-developed Q_p at T_c for DMA C: n/a *Q_p = Item 6_{DMAC} + [Item 6_{DMAA} * (Item 1_{DMAC} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAC/1}$] + [Item 6_{DMAB} * (Item 1_{DMAC} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAC/2}$]*

10 Peak runoff from pre-developed condition confluence analysis (cfs): 3.68 *Maximum of Item 8, 9, and 10 (including additional forms as needed)*

11 Post-developed Q_p at T_c for DMA A: 9.82
Same as Item 8 for post-developed values

12 Post-developed Q_p at T_c for DMA B: n/a
Same as Item 9 for post-developed values

13 Post-developed Q_p at T_c for DMA C: n/a
Same as Item 10 for post-developed values

14 Peak runoff from post-developed condition confluence analysis (cfs): 9.82 *Maximum of Item 11, 12, and 13 (including additional forms as needed)*

15 Peak runoff reduction needed to meet HCOC Requirement (cfs): 5.65 *$Q_{p\text{-}HCOC}$ = (Item 14 * 0.95) – Item 10*

Form 4.2-5 HCOC Assessment for Peak Runoff (DA 2)

Compute peak runoff for pre- and post-developed conditions

Variables		Pre-developed DMA to Project Outlet	Post-developed DMA to Project Outlet		
			DMA 2A	DMA 2B	DMA 2C
1 Rainfall Intensity for storm duration equal to time of concentration *I_{peak} = 10^(LOG Form 4.2-1 Item 4 - 0.6 LOG (Form 4.2-4 Item 5 /60))*		1.73	3.09		
2 Drainage Area of each DMA (Acres) *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		4.14	1.40	1.51	1.35
3 Ratio of pervious area to total area *For DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include drainage from DMA C)*		1.00	0.20		
4 Pervious area infiltration rate (in/hr) *Use pervious area CN and antecedent moisture condition with Appendix C-3 of the TGD for WQMP*		0.58	0.94		
5 Maximum loss rate (in/hr) *F_m = Item 3 * Item 4* *Use area-weighted F_m from DMA with outlet at project site outlet, include upstream DMA (Using example schematic in Form 3-1, DMA A will include*		0.58	0.19		
6 Peak Flow from DMA (cfs) *Q_p =Item 2 * 0.9 * (Item 1 - Item 5)*		4.28	11.12		
7 Time of concentration adjustment factor for other DMA to site discharge point *Form 4.2-4 Item 12 DMA / Other DMA upstream of site discharge point (If ratio is greater than 1.0, then use maximum value of 1.0)*	DA 1	*n/a*	*n/a*	*n/a*	*n/a*
	DA 2	*n/a*	*n/a*	*n/a*	*n/a*
	DA 3	*n/a*	*n/a*	*n/a*	*n/a*

8 Pre-developed Q_p at T_c for DMA A: 4.28 *Q_p = Item 6_{DMAA} + [Item 6_{DMAB} * (Item 1_{DMAA} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAA/2}$] + [Item 6_{DMAC} * (Item 1_{DMAA} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAA/3}$]*	**9** Pre-developed Q_p at T_c for DMA B: n/a *Q_p = Item 6_{DMAB} + [Item 6_{DMAA} * (Item 1_{DMAB} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAB/1}$] + [Item 6_{DMAC} * (Item 1_{DMAB} - Item 5_{DMAC})/(Item 1_{DMAC} - Item 5_{DMAC})* Item $7_{DMAB/3}$]*	**10** Pre-developed Q_p at T_c for DMA C: n/a *Q_p = Item 6_{DMAC} + [Item 6_{DMAA} * (Item 1_{DMAC} - Item 5_{DMAA})/(Item 1_{DMAA} - Item 5_{DMAA})* Item $7_{DMAC/1}$] + [Item 6_{DMAB} * (Item 1_{DMAC} - Item 5_{DMAB})/(Item 1_{DMAB} - Item 5_{DMAB})* Item $7_{DMAC/2}$]*

10 Peak runoff from pre-developed condition confluence analysis (cfs): 4.28 *Maximum of Item 8, 9, and 10 (including additional forms as needed)*

11 Post-developed Q_p at T_c for DMA A: 11.12 *Same as Item 8 for post-developed values*	**12** Post-developed Q_p at T_c for DMA B: n/a *Same as Item 9 for post-developed values*	**13** Post-developed Q_p at T_c for DMA C: n/a *Same as Item 10 for post-developed values*

14 Peak runoff from post-developed condition confluence analysis (cfs): 11.12 *Maximum of Item 11, 12, and 13 (including additional forms as needed)*

15 Peak runoff reduction needed to meet HCOC Requirement (cfs): 6.28 *$Q_{p\text{-}HCOC}$ = (Item 14 * 0.95) – Item 10*

4.3 Project Conformance Analysis

Per Form 4.3-1 below, Drainage Areas 1 and 2 are determined that retention and infiltration BMPs are feasible for the project. A copy of the geotechnical investigations and infiltration testing will be provided in future submittal.

Form 4.3-1 Infiltration BMP Feasibility (DA 1)

Feasibility Criterion – Complete evaluation for each DA on the Project Site

[1] Would infiltration BMP pose significant risk for groundwater related concerns? Yes ☐ No ☒
Refer to Section 5.3.2.1 of the TGD for WQMP

If Yes, Provide basis: (attach)

[2] Would installation of infiltration BMP significantly increase the risk of geotechnical hazards? Yes ☐ No ☒
(Yes, if the answer to any of the following questions is yes, as established by a geotechnical expert):

- The location is less than 50 feet away from slopes steeper than 15 percent
- The location is less than eight feet from building foundations or an alternative setback.
- A study certified by a geotechnical professional or an available watershed study determines that stormwater infiltration would result in significantly increased risks of geotechnical hazards.

If Yes, Provide basis: (attach)

[3] Would infiltration of runoff on a Project site violate downstream water rights? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[4] Is proposed infiltration facility located on hydrologic soil group (HSG) D soils or does the site geotechnical investigation indicate presence of soil characteristics, which support categorization as D soils? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[5] Is the design infiltration rate, after accounting for safety factor of 2.0, below proposed facility less than 0.3 in/hr (accounting for soil amendments)? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[6] Would on-site infiltration or reduction of runoff over pre-developed conditions be partially or fully inconsistent with watershed management strategies as defined in the WAP, or impair beneficial uses? Yes ☐ No ☒
See Section 3.5 of the TGD for WQMP and WAP

If Yes, Provide basis: (attach)

[7] Any answer from Item 1 through Item 3 is "Yes": Yes ☐ No ☒
If yes, infiltration of any volume is not feasible onsite. Proceed to Form 4.3-4, Harvest and Use BMP. If no, then proceed to Item 8 below.

[8] Any answer from Item 4 through Item 6 is "Yes": Yes ☐ No ☒
If yes, infiltration is permissible but is not required to be considered. Proceed to Form 4.3-2, Hydrologic Source Control BMP.
If no, then proceed to Item 9, below.

[9] All answers to Item 1 through Item 6 are "No":
Infiltration of the full DCV is potentially feasible, LID infiltration BMP must be designed to infiltrate the full DCV to the MEP. Proceed to Form 4.3-2, Hydrologic Source Control BMP.

Form 4.3-1 Infiltration BMP Feasibility (DA 2)

Feasibility Criterion – Complete evaluation for each DA on the Project Site

[1] Would infiltration BMP pose significant risk for groundwater related concerns? Yes ☐ No ☒
Refer to Section 5.3.2.1 of the TGD for WQMP

If Yes, Provide basis: (attach)

[2] Would installation of infiltration BMP significantly increase the risk of geotechnical hazards? Yes ☐ No ☒
(Yes, if the answer to any of the following questions is yes, as established by a geotechnical expert):

- The location is less than 50 feet away from slopes steeper than 15 percent
- The location is less than eight feet from building foundations or an alternative setback.
- A study certified by a geotechnical professional or an available watershed study determines that stormwater infiltration would result in significantly increased risks of geotechnical hazards.

If Yes, Provide basis: (attach)

[3] Would infiltration of runoff on a Project site violate downstream water rights? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[4] Is proposed infiltration facility located on hydrologic soil group (HSG) D soils or does the site geotechnical investigation indicate presence of soil characteristics, which support categorization as D soils? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[5] Is the design infiltration rate, after accounting for safety factor of 2.0, below proposed facility less than 0.3 in/hr (accounting for soil amendments)? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[6] Would on-site infiltration or reduction of runoff over pre-developed conditions be partially or fully inconsistent with watershed management strategies as defined in the WAP, or impair beneficial uses? Yes ☐ No ☒
See Section 3.5 of the TGD for WQMP and WAP

If Yes, Provide basis: (attach)

[7] Any answer from Item 1 through Item 3 is "Yes": Yes ☐ No ☒
If yes, infiltration of any volume is not feasible onsite. Proceed to Form 4.3-4, Harvest and Use BMP. If no, then proceed to Item 8 below.

[8] Any answer from Item 4 through Item 6 is "Yes": Yes ☐ No ☒
If yes, infiltration is permissible but is not required to be considered. Proceed to Form 4.3-2, Hydrologic Source Control BMP.
If no, then proceed to Item 9, below.

[9] All answers to Item 1 through Item 6 are "No":
Infiltration of the full DCV is potentially feasible, LID infiltration BMP must be designed to infiltrate the full DCV to the MEP.
Proceed to Form 4.3-2, Hydrologic Source Control BMP.

4.3.1 Site Design Hydrologic Source Control BMP

Site design hydrologic source control BMPs are not used in this project.

Form 4.3-2 Site Design Hydrologic Source Control BMPs (DA 1)			
1 Implementation of Impervious Area Dispersion BMP (i.e. routing runoff from impervious to pervious areas), excluding impervious areas planned for routing to on-lot infiltration BMP: Yes ☐ No ☒ *If yes, complete Items 2-5; If no, proceed to Item 6*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
2 Total impervious area draining to pervious area (ft^2)			
3 Ratio of pervious area receiving runoff to impervious area			
4 Retention volume achieved from impervious area dispersion (ft^3) *V = Item2 * Item 3 * (0.5/12), assuming retention of 0.5 inches of runoff*			
5 Sum of retention volume achieved from impervious area dispersion (ft^3): $V_{retention}$ *=Sum of Item 4 for all BMPs*			
6 Implementation of Localized On-lot Infiltration BMPs (e.g. on-lot rain gardens): Yes ☐ No ☒ *If yes, complete Items 7-13 for aggregate of all on-lot infiltration BMP in each DA; If no, proceed to Item 14*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
7 Ponding surface area (ft^2)			
8 Ponding depth (ft)			
9 Surface area of amended soil/gravel (ft^2)			
10 Average depth of amended soil/gravel (ft)			
11 Average porosity of amended soil/gravel			
12 Retention volume achieved from on-lot infiltration (ft^3) $V_{retention}$ *= (Item 7 *Item 8) + (Item 9 * Item 10 * Item 11)*			
13 Runoff volume retention from on-lot infiltration (ft^3): $V_{retention}$ *=Sum of Item 12 for all BMPs*			

Form 4.3-2 cont. Site Design Hydrologic Source Control BMPs (DA 1)			
14 Implementation of evapotranspiration BMP (green, brown, or blue roofs): Yes ☐ No ☒ *If yes, complete Items 15-20. If no, proceed to Item 21*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
15 Rooftop area planned for ET BMP (ft^2)			

16 Average wet season ET demand (in/day) *Use local values, typical ~ 0.1*			
17 Daily ET demand (ft^3/day) *Item 15 * (Item 16 / 12)*			
18 Drawdown time (hrs) *Copy Item 6 in Form 4.2-1*			
19 Retention Volume (ft^3) $V_{retention}$ *= Item 17 * (Item 18 / 24)*			
20 Runoff volume retention from evapotranspiration BMPs (ft^3): $V_{retention}$ *=Sum of Item 19 for all BMPs*			
21 Implementation of Street Trees: Yes ☐ No ☒ *If yes, complete Items 22-25. If no, proceed to Item 26*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
22 Number of Street Trees			
23 Average canopy cover over impervious area (ft^2)			
24 Runoff volume retention from street trees (ft^3) $V_{retention}$ *= Item 22 * Item 23 * (0.05/12) assume runoff retention of 0.05 inches*			
25 Runoff volume retention from street tree BMPs (ft^3): $V_{retention}$ *= Sum of Item 24 for all BMPs*			
26 Implementation of residential rain barrel/cisterns: Yes☐ No ☒ *If yes, complete Items 27-29; If no, proceed to Item 30*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
27 Number of rain barrels/cisterns			
28 Runoff volume retention from rain barrels/cisterns (ft^3) $V_{retention}$ *= Item 27 * 3*			
29 Runoff volume retention from residential rain barrels/Cisterns (ft3): $V_{retention}$ *=Sum of Item 28 for all BMPs*			
30 Total Retention Volume from Site Design Hydrologic Source Control BMPs: 0 *Sum of Items 5, 13, 20, 25 and 29*			

4.3.2 Infiltration BMPs

Use Form 4.3-3 to compute on-site retention of runoff from proposed retention and infiltration BMPs.

Form 4.3-3 Infiltration LID BMP - including underground BMPs (DA 1)

1 Remaining LID DCV not met by site design HSC BMP (ft^3): *V_{unmet} = 0 Form 4.2-1 Item 7 - Form 4.3-2 Item 30*

BMP Type *Use columns to the right to compute runoff volume retention from proposed infiltration BMP (select BMP from Table 5-4 in TGD for WQMP) - Use additional forms for more BMPs*	DA 1 DMA A BMP Type Underground Detention Basin		
2 Infiltration rate of underlying soils (in/hr) *See Section 5.4.2 and Appendix D of the TGD for WQMP for minimum requirements for assessment methods*	3.45		
3 Infiltration safety factor *See TGD Section 5.4.2 and Appendix D*	3		
4 Design percolation rate (in/hr) *P_{design} = Item 2 / Item 3*	1.15		
5 Ponded water drawdown time (hr) *Copy Item 6 in Form 4.2-1*	48		
6 Maximum ponding depth (ft) *BMP specific, see Table 5-4 of the TGD for WQMP for BMP design details*	4.6		
7 Ponding Depth (ft) *d_{BMP} = Minimum of (1/12*Item 4*Item 5) or Item 6*	4.6		
8 Infiltrating surface area, SA_{BMP} (ft^2) *the lesser of the area needed for infiltration of full DCV or minimum space requirements from Table 5.7 of the TGD for WQMP*	3,350		
9 Amended soil depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 in the TGD for WQMP for reference to BMP design details*	n/a		
10 Amended soil porosity	n/a		
11 Gravel depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 of the TGD for WQMP for BMP design details*	10		
12 Gravel porosity	0.33		
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*	3		
14 Above Ground Retention Volume (ft^3) *$V_{retention}$ = Item 8 * [Item7 + (Item 9 * Item 10) + (Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*	n/a		
15 Underground Retention Volume (ft^3) *Volume determined using manufacturer's specifications and calculations*	18,425		

16 Total Retention Volume from LID Infiltration BMPs: 18,425 *(Sum of Items 14 and 15 for all infiltration BMP included in plan)*

17 Fraction of DCV achieved with infiltration BMP: 100% *Retention% = Item 16 / Form 4.2-1 Item 7*

18 Is full LID DCV retained onsite with combination of hydrologic source control and LID retention/infiltration BMPs? Yes ☒ No ☐

If yes, demonstrate conformance using Form 4.3-10; If no, then reduce Item 3, Factor of Safety to 2.0 and increase Item 8, Infiltrating Surface Area, such that the portion of the site area used for retention and infiltration BMPs equals or exceeds the minimum effective area thresholds (Table 5-7 of the TGD for WQMP) for the applicable category of development and repeat all above calculations.

Form 4.3-3 Infiltration LID BMP - including underground BMPs (DA 2)

1 Remaining LID DCV not met by site design HSC BMP (ft^3): *V_{unmet} = 0 Form 4.2-1 Item 7 - Form 4.3-2 Item 30*

BMP Type *Use columns to the right to compute runoff volume retention from proposed infiltration BMP (select BMP from Table 5-4 in TGD for WQMP) - Use additional forms for more BMPs*	DA 1 DMA A BMP Type Underground Detention Basin		
2 Infiltration rate of underlying soils (in/hr) *See Section 5.4.2 and Appendix D of the TGD for WQMP for minimum requirements for assessment methods*	3.45		
3 Infiltration safety factor *See TGD Section 5.4.2 and Appendix D*	3		
4 Design percolation rate (in/hr) *P_{design} = Item 2 / Item 3*	1.15		
5 Ponded water drawdown time (hr) *Copy Item 6 in Form 4.2-1*	48		
6 Maximum ponding depth (ft) *BMP specific, see Table 5-4 of the TGD for WQMP for BMP design details*	4.6		
7 Ponding Depth (ft) *d_{BMP} = Minimum of (1/12*Item 4*Item 5) or Item 6*	4.6		
8 Infiltrating surface area, SA_{BMP} (ft^2) *the lesser of the area needed for infiltration of full DCV or minimum space requirements from Table 5.7 of the TGD for WQMP*	4,050		
9 Amended soil depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 in the TGD for WQMP for reference to BMP design details*	n/a		
10 Amended soil porosity	n/a		
11 Gravel depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 of the TGD for WQMP for BMP design details*	10		
12 Gravel porosity	0.33		
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*	3		
14 Above Ground Retention Volume (ft^3) *$V_{retention}$ = Item 8 * [Item7 + (Item 9 * Item 10) + (Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*	n/a		
15 Underground Retention Volume (ft^3) *Volume determined using manufacturer's specifications and calculations*	22,275		

16 Total Retention Volume from LID Infiltration BMPs: 22,275 *(Sum of Items 14 and 15 for all infiltration BMP included in plan)*

17 Fraction of DCV achieved with infiltration BMP: 100% *Retention% = Item 16 / Form 4.2-1 Item 7*

18 Is full LID DCV retained onsite with combination of hydrologic source control and LID retention/infiltration BMPs? Yes ☒ No ☐

If yes, demonstrate conformance using Form 4.3-10; If no, then reduce Item 3, Factor of Safety to 2.0 and increase Item 8, Infiltrating Surface Area, such that the portion of the site area used for retention and infiltration BMPs equals or exceeds the minimum effective area thresholds (Table 5-7 of the TGD for WQMP) for the applicable category of development and repeat all above calculations.

4.3.3 Harvest and Use BMP

Harvest and Use is not used as a BMP in this project.

Form 4.3-4 Harvest and Use BMPs (DA 1)			
1 Remaining LID DCV not met by site design HSC or infiltration BMP (ft^3): *V_{unmet} = Form 4.2-1 Item 7 - Form 4.3-2 Item 30 – Form 4.3-3 Item 16*			
BMP Type(s) *Compute runoff volume retention from proposed harvest and use BMP (Select BMPs from Table 5-4 of the TGD for WQMP) - Use additional forms for more BMPs*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
2 Describe cistern or runoff detention facility			
3 Storage volume for proposed detention type (ft^3) *Volume of cistern*			
4 Landscaped area planned for use of harvested stormwater (ft^2)			
5 Average wet season daily irrigation demand (in/day) Use local values, typical ~ 0.1 in/day			
6 Daily water demand (ft^3/day) *Item 4 * (Item 5 / 12)*			
7 Drawdown time (hrs) *Copy Item 6 from Form 4.2-1*			
8 Retention Volume (ft^3) *$V_{retention}$ = Minimum of (Item 3) or (Item 6 * (Item 7 / 24))*			
9 Total Retention Volume (ft^3) from Harvest and Use BMP *Sum of Item 8 for all harvest and use BMP included in plan*			
10 Is the full DCV retained with a combination of LID HSC, retention and infiltration, and harvest & use BMPs? Yes ☐ No ☐ *If yes, demonstrate conformance using Form 4.3-10. If no, then re-evaluate combinations of all LID BMP and optimize their implementation such that the maximum portion of the DCV is retained on-site (using a single BMP type or combination of BMP types). If the full DCV cannot be mitigated after this optimization process, proceed to Section 4.3.4.*			

4.3.4 Biotreatment BMP

Bioretention is not used as a BMP in this project.

Form 4.3-5 Selection and Evaluation of Biotreatment BMP (DA 1)

1 Remaining LID DCV not met by site design HSC, infiltration, or harvest and use BMP for potential biotreatment (ft^3): *Form 4.2-1 Item 7 - Form 4.3-2 Item 30 – Form 4.3-3 Item 16- Form 4.3-4 Item 9*	List pollutants of concern *Copy from Form 2.3-1.*	
2 Biotreatment BMP Selected *(Select biotreatment BMP(s) necessary to ensure all pollutants of concern are addressed through Unit Operations and Processes, described in Table 5-5 of the TGD for WQMP)*	Volume-based biotreatment *Use Forms 4.3-6 and 4.3-7 to compute treated volume* ☐ Bioretention with underdrain ☐ Planter box with underdrain ☐ Constructed wetlands ☐ Wet extended detention ☐ Dry extended detention	Flow-based biotreatment *Use Form 4.3-8 to compute treated volume* ☐ Vegetated swale ☐ Vegetated filter strip ☐ Proprietary biotreatment
3 Volume biotreated in volume based biotreatment BMP (ft^3): *Form 4.3-6 Item 15 + Form 4.3-7 Item 13*	**4** Compute remaining LID DCV with implementation of volume based biotreatment BMP (ft^3): *Item 1 – Item 3*	**5** Remaining fraction of LID DCV for sizing flow based biotreatment BMP: % *Item 4 / Item 1*
6 Flow-based biotreatment BMP capacity provided (cfs): *Use Figure 5-2 of the TGD for WQMP to determine flow capacity required to provide biotreatment of remaining percentage of unmet LID DCV (Item 5), for the project's precipitation zone (Form 3-1 Item 1)*		
7 Metrics for MEP determination: • Provided a WQMP with the portion of site area used for suite of LID BMP equal to minimum thresholds in Table 5-7 of the TGD for WQMP for the proposed category of development: ☐ *If maximized on-site retention BMPs is feasible for partial capture, then LID BMP implementation must be optimized to retain and infiltrate the maximum portion of the DCV possible within the prescribed minimum effective area. The remaining portion of the DCV shall then be mitigated using biotreatment BMP.*		

Form 4.3-6 Volume Based Biotreatment (DA 1) – Bioretention and Planter Boxes with Underdrains

Biotreatment BMP Type *(Bioretention w/underdrain, planter box w/underdrain, other comparable BMP)*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
1 Pollutants addressed with BMP *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in Table 5-5 of the TGD for WQMP*			
2 Amended soil infiltration rate *Typical ~ 5.0*			
3 Amended soil infiltration safety factor *Typical ~ 2.0*			
4 Amended soil design percolation rate (in/hr) P_{design} *= Item 2 / Item 3*			
5 Ponded water drawdown time (hr) *Copy Item 6 from Form 4.2-1*			
6 Maximum ponding depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
7 Ponding Depth (ft) d_{BMP} *= Minimum of (1/12 * Item 4 * Item 5) or Item 6*			
8 Amended soil surface area (ft^2)			
9 Amended soil depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
10 Amended soil porosity, *n*			
11 Gravel depth (ft) *see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
12 Gravel porosity, *n*			
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*			
14 Biotreated Volume (ft^3) $V_{biotreated}$ *= Item 8 * [(Item 7/2) + (Item 9 * Item 10) +(Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*			
15 Total biotreated volume from bioretention and/or planter box with underdrains BMP: *Sum of Item 14 for all volume-based BMPs included in this form*			

Form 4.3-7 Volume Based Biotreatment (DA 1) – Constructed Wetlands and Extended Detention

Biotreatment BMP Type *Constructed wetlands, extended wet detention, extended dry detention, or other comparable proprietary BMP. If BMP includes multiple modules (e.g. forebay and main basin), provide separate estimates for storage and pollutants treated in each module.*	DA DMA BMP Type		DA DMA BMP Type *(Use additional forms for more BMPs)*	
	Forebay	Basin	Forebay	Basin
1 Pollutants addressed with BMP forebay and basin *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in Table 5-5 of the TGD for WQMP*				
2 Bottom width (ft)				
3 Bottom length (ft)				
4 Bottom area (ft^2) A_{bottom} = *Item 2 * Item 3*				
5 Side slope (ft/ft)				
6 Depth of storage (ft)				
7 Water surface area (ft^2) $A_{surface}$ =*(Item 2 + (2 * Item 5 * Item 6)) * (Item 3 + (2 * Item 5 * Item 6))*				
8 Storage volume (ft^3) *For BMP with a forebay, ensure fraction of total storage is within ranges specified in BMP specific fact sheets, see Table 5-6 of the TGD for WQMP for reference to BMP design details* V =*Item 6 / 3 * [Item 4 + Item 7 + (Item 4 * Item 7)^0.5]*				
9 Drawdown Time (hrs) *Copy Item 6 from Form 2.1*				
10 Outflow rate (cfs) Q_{BMP} = *(Item* $8_{forebay}$ + *Item* 8_{basin}*) / (Item 9 * 3600)*				
11 Duration of design storm event (hrs)				
12 Biotreated Volume (ft^3) $V_{biotreated}$ = *(Item* $8_{forebay}$ + *Item* 8_{basin}*) +(Item 10 * Item 11 * 3600)*				
13 Total biotreated volume from constructed wetlands, extended dry detention, or extended wet detention : *(Sum of Item 12 for all BMP included in plan)*				

Form 4.3-8 Flow Based Biotreatment (DA 1)			
Biotreatment BMP Type *Vegetated swale, vegetated filter strip, or other comparable proprietary BMP*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
1 Pollutants addressed with BMP *List all pollutant of concern that will be effectively reduced through specific Unit Operations and Processes described in TGD Table 5-5*			
2 Flow depth for water quality treatment (ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
3 Bed slope (ft/ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
4 Manning's roughness coefficient			
5 Bottom width (ft) b_w *= (Form 4.3-5 Item 6 * Item 4) / (1.49 * Item 2^1.67 * Item 3^0.5)*			
6 Side Slope (ft/ft) *BMP specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
7 Cross sectional area (ft^2) *A = (Item 5 * Item 2) + (Item 6 * Item 2^2)*			
8 Water quality flow velocity (ft/sec) *V = Form 4.3-5 Item 6 / Item 7*			
9 Hydraulic residence time (min) *Pollutant specific, see Table 5-6 of the TGD for WQMP for reference to BMP design details*			
10 Length of flow based BMP (ft) *L = Item 8 * Item 9 * 60*			
11 Water surface area at water quality flow depth (ft^2) SA_{top} *= (Item 5 + (2 * Item 2 * Item 6)) * Item 10*			

4.3.5 Conformance Summary

Complete Form 4.3-9 to demonstrate how on-site LID DCV is met with proposed infiltration BMP.

Form 4.3-9 Conformance Summary and Alternative Compliance Volume Estimate (DA 1)

1 Total LID DCV for the Project DA-1 (ft^3): 13,399 *Copy Item 7 in Form 4.2-1*

2 On-site retention with site design hydrologic source control LID BMP (ft^3): 0 *Copy Item 30 in Form 4.3-2*

3 On-site retention with LID infiltration BMP (ft^3): 18,425 *Copy Item 16 in Form 4.3-3*

4 On-site retention with LID harvest and use BMP (ft^3): 0 *Copy Item 9 in Form 4.3-4*

5 On-site biotreatment with volume based biotreatment BMP (ft^3): 0 *Copy Item 3 in Form 4.3-5*

6 Flow capacity provided by flow based biotreatment BMP (cfs): 0 *Copy Item 6 in Form 4.3-5*

7 LID BMP performance criteria are achieved if answer to any of the following is "Yes":

- Full retention of LID DCV with site design HSC, infiltration, or harvest and use BMP: Yes ☒ No ☐
  If yes, sum of Items 2, 3, and 4 is greater than Item 1
- Combination of on-site retention BMPs for a portion of the LID DCV and volume-based biotreatment BMP that address all pollutants of concern for the remaining LID DCV: Yes ☐ No ☒
  If yes, a) sum of Items 2, 3, 4, and 5 is greater than Item 1, and Items 2, 3 and 4 are maximized; or b) Item 6 is greater than Form 4.3--5 Item 6 and Items 2, 3 and 4 are maximized
- On-site retention and infiltration is determined to be infeasible and biotreatment BMP provide biotreatment for all pollutants of concern for full LID DCV: Yes ☐ No ☒
  If yes, Form 4.3-1 Items 7 and 8 were both checked yes

8 If the LID DCV is not achieved by any of these means, then the project may be allowed to develop an alternative compliance plan. Check box that describes the scenario which caused the need for alternative compliance:

- Combination of HSC, retention and infiltration, harvest and use, and biotreatment BMPs provide less than full LID DCV capture: ☐
  Checked yes for Form 4.3-5 Item 7, Item 6 is zero, and sum of Items 2, 3, 4, and 5 is less than Item 1. If so, apply water quality credits and calculate volume for alternative compliance, V_{alt} *= (Item 1 – Item 2 – Item 3 – Item 4 – Item 5) * (100 - Form 2.4-1 Item 2)%*
- An approved Watershed Action Plan (WAP) demonstrates that water quality and hydrologic impacts of urbanization are more effective when managed in at an off-site facility: ☐
  Attach appropriate WAP section, including technical documentation, showing effectiveness comparisons for the project site and regional watershed

Form 4.3-9 Conformance Summary and Alternative Compliance Volume Estimate (DA 2)

1 Total LID DCV for the Project DA-2 (ft^3): 16,216 *Copy Item 7 in Form 4.2-1*

2 On-site retention with site design hydrologic source control LID BMP (ft^3): 0 *Copy Item 30 in Form 4.3-2*

3 On-site retention with LID infiltration BMP (ft^3): 22,275 *Copy Item 16 in Form 4.3-3*

4 On-site retention with LID harvest and use BMP (ft^3): 0 *Copy Item 9 in Form 4.3-4*

5 On-site biotreatment with volume based biotreatment BMP (ft^3): 0 *Copy Item 3 in Form 4.3-5*

6 Flow capacity provided by flow based biotreatment BMP (cfs): 0 *Copy Item 6 in Form 4.3-5*

7 LID BMP performance criteria are achieved if answer to any of the following is "Yes":

- Full retention of LID DCV with site design HSC, infiltration, or harvest and use BMP: Yes ☒ No ☐
  If yes, sum of Items 2, 3, and 4 is greater than Item 1
- Combination of on-site retention BMPs for a portion of the LID DCV and volume-based biotreatment BMP that address all pollutants of concern for the remaining LID DCV: Yes ☐ No ☒
  If yes, a) sum of Items 2, 3, 4, and 5 is greater than Item 1, and Items 2, 3 and 4 are maximized; or b) Item 6 is greater than Form 4.3--5 Item 6 and Items 2, 3 and 4 are maximized
- On-site retention and infiltration is determined to be infeasible and biotreatment BMP provide biotreatment for all pollutants of concern for full LID DCV: Yes ☐ No ☒
  If yes, Form 4.3-1 Items 7 and 8 were both checked yes

8 If the LID DCV is not achieved by any of these means, then the project may be allowed to develop an alternative compliance plan. Check box that describes the scenario which caused the need for alternative compliance:

- Combination of HSC, retention and infiltration, harvest and use, and biotreatment BMPs provide less than full LID DCV capture: ☐
  Checked yes for Form 4.3-5 Item 7, Item 6 is zero, and sum of Items 2, 3, 4, and 5 is less than Item 1. If so, apply water quality credits and calculate volume for alternative compliance, V_{alt} *= (Item 1 – Item 2 – Item 3 – Item 4 – Item 5) * (100 - Form 2.4-1 Item 2)%*
- An approved Watershed Action Plan (WAP) demonstrates that water quality and hydrologic impacts of urbanization are more effective when managed in at an off-site facility: ☐
  Attach appropriate WAP section, including technical documentation, showing effectiveness comparisons for the project site and regional watershed

4.3.6 Hydromodification Control BMP

Use Form 4.3-10 to compute the remaining runoff volume retention, after LID BMP are implemented, needed to address HCOC, and the increase in time of concentration and decrease in peak runoff necessary to meet targets for protection of waterbodies with a potential HCOC. Describe hydromodification control BMP that address HCOC, which may include off-site BMP and/or in-stream controls. Section 5.6 of the TGD for WQMP provides additional details on selection and evaluation of hydromodification control BMP.

Form 4.3-10 Hydromodification Control BMPs (DA 1)

1 Volume reduction needed for HCOC performance criteria (ft^3): 8,567 *(Form 4.2-2 Item 4 * 0.95) – Form 4.2-2 Item 1*	**2** On-site retention with site design hydrologic source control, infiltration, and harvest and use LID BMP (ft^3): 18,425 *Sum of Form 4.3-9 Items 2, 3, and 4 Evaluate option to increase implementation of on-site retention in Forms 4.3-2, 4.3-3, and 4.3-4 in excess of LID DCV toward achieving HCOC volume reduction*
3 Remaining volume for HCOC volume capture (ft^3): 0 *Item 1 – Item 2*	**4** Volume capture provided by incorporating additional on-site or off-site retention BMPs (ft^3): 0 *Existing downstream BMP may be used to demonstrate additional volume capture (if so, attach to this WQMP a hydrologic analysis showing how the additional volume would be retained during a 2-yr storm event for the regional watershed)*

5 If Item 4 is less than Item 3, incorporate in-stream controls on downstream waterbody segment to prevent impacts due to hydromodification ☐ *Attach in-stream control BMP selection and evaluation to this WQMP*

6 Is Form 4.2-2 Item 11 less than or equal to 5%: Yes ☐ No ☒

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate increase in time of concentration achieved by proposed LID site design, LID BMP, and additional on-site or off-site retention BMP ☒
  BMP upstream of a waterbody segment with a potential HCOC may be used to demonstrate increased time of concentration through hydrograph attenuation (if so, show that the hydraulic residence time provided in BMP for a 2-year storm event is equal or greater than the addition time of concentration requirement in Form 4.2-4 Item 15)
- Increase time of concentration by preserving pre-developed flow path and/or increase travel time by reducing slope and increasing cross-sectional area and roughness for proposed on-site conveyance facilities ☐
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

7 Form 4.2-2 Item 12 less than or equal to 5%: Yes ☐ No ☒

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate reduction in peak runoff achieved by proposed LID site design, LID BMPs, and additional on-site or off-site retention BMPs ☒
  BMPs upstream of a waterbody segment with a potential HCOC may be used to demonstrate additional peak runoff reduction through hydrograph attenuation (if so, attach to this WQMP, a hydrograph analysis showing how the peak runoff would be reduced during a 2-yr storm event)
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

Form 4.3-10 Hydromodification Control BMPs (DA 2)

1 Volume reduction needed for HCOC performance criteria (ft^3): 10,888 *(Form 4.2-2 Item 4 * 0.95) – Form 4.2-2 Item 1*	**2** On-site retention with site design hydrologic source control, infiltration, and harvest and use LID BMP (ft^3): 22,275 *Sum of Form 4.3-9 Items 2, 3, and 4 Evaluate option to increase implementation of on-site retention in Forms 4.3-2, 4.3-3, and 4.3-4 in excess of LID DCV toward achieving HCOC volume reduction*
3 Remaining volume for HCOC volume capture (ft^3): 0 *Item 1 – Item 2*	**4** Volume capture provided by incorporating additional on-site or off-site retention BMPs (ft^3): 0 *Existing downstream BMP may be used to demonstrate additional volume capture (if so, attach to this WQMP a hydrologic analysis showing how the additional volume would be retained during a 2-yr storm event for the regional watershed)*

5 If Item 4 is less than Item 3, incorporate in-stream controls on downstream waterbody segment to prevent impacts due to hydromodification ☐ *Attach in-stream control BMP selection and evaluation to this WQMP*

6 Is Form 4.2-2 Item 11 less than or equal to 5%: Yes ☐ No ☒

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate increase in time of concentration achieved by proposed LID site design, LID BMP, and additional on-site or off-site retention BMP ☒

  BMP upstream of a waterbody segment with a potential HCOC may be used to demonstrate increased time of concentration through hydrograph attenuation (if so, show that the hydraulic residence time provided in BMP for a 2-year storm event is equal or greater than the addition time of concentration requirement in Form 4.2-4 Item 15)
- Increase time of concentration by preserving pre-developed flow path and/or increase travel time by reducing slope and increasing cross-sectional area and roughness for proposed on-site conveyance facilities ☐
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

7 Form 4.2-2 Item 12 less than or equal to 5%: Yes ☐ No ☒

If yes, HCOC performance criteria is achieved. If no, select one or more mitigation options below:

- Demonstrate reduction in peak runoff achieved by proposed LID site design, LID BMPs, and additional on-site or off-site retention BMPs ☒

  BMPs upstream of a waterbody segment with a potential HCOC may be used to demonstrate additional peak runoff reduction through hydrograph attenuation (if so, attach to this WQMP, a hydrograph analysis showing how the peak runoff would be reduced during a 2-yr storm event)
- Incorporate appropriate in-stream controls for downstream waterbody segment to prevent impacts due to hydromodification, in a plan approved and signed by a licensed engineer in the State of California ☐

4.4 Alternative Compliance Plan (if applicable)

Alternative Compliance Plan is not used at this project site.

Section 5 Inspection and Maintenance Responsibility for Post Construction BMP

As the project is completed, a Homeowner Association (HOA) will be formed. The HOA shall be responsible for the maintenance and long-term funding of BMP maintenance. BMPs shall be maintained throughout the year, and inspection and maintenance activities shall be documented as part of this WQMP.

The HOA shall retain operations, inspections and maintenance records for these BMPs, and be made available to the City upon request. All records shall be maintained by the HOA for at least five years after the recorded inspection date.

Before the formation of the HOA, the Owner shall be responsible for the maintenance of BMPs.

Form 5-1 BMP Inspection and Maintenance (use additional forms as necessary)

Non-Structural Source Control BMPs

BMP	Reponsible Party(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
N-1 - Education of Property Owners, Tenants and Occupants on Stormwater BMPs	Owner/Future HOA	N/A	Prior to building occupancy
N-2 Activity Restrictions	Owner/Future HOA	The Owner will prescribe restrictions to protect water quality, through a Covenant, Condition and Restriction (CC&R's) agreement, or other equally effective measure, for the property.	Ongoing
N-3 Landscape Management BMPs	Owner/Future HOA	Scheduled by the future HOA. Maintenance activities for landscape areas shall be consistent with County and manufacturer guidelines for fertilizer and pesticide use. Maintenance includes trimming, weeding and debris removal and vegetation planting and replacement. Stockpiled materials during maintenance activities shall be placed away from drain inlets and runoff conveyance devices. Wastes shall be properly disposed of or recycled. Maintenance for common areas	Ongoing

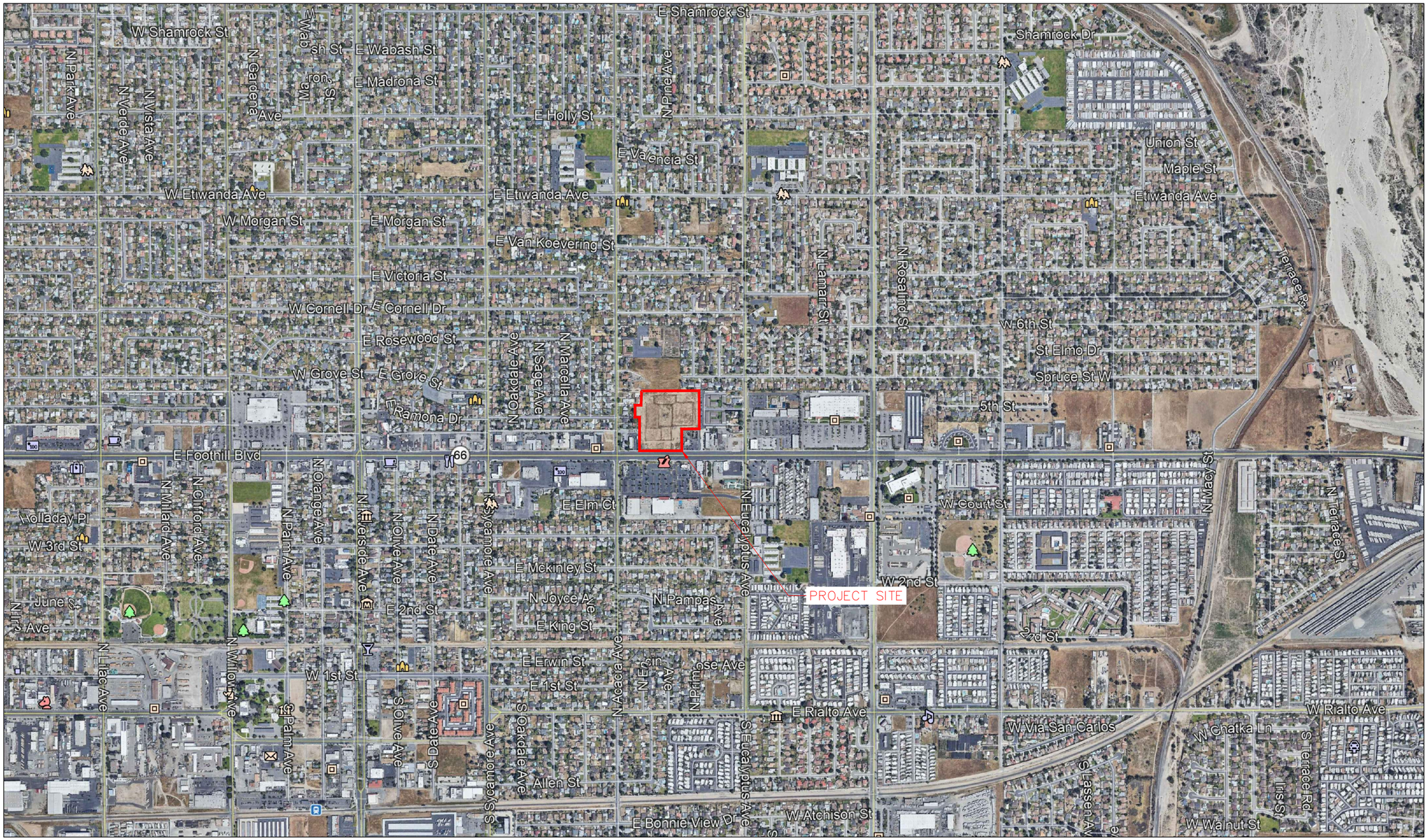
		and landscape parking islands is scheduled by future HOA.	
N-4 BMP Maintenance	Owner/Future HOA	Scheduled by the future HOA for cleaning of all (structural and non-structural) BMP facilities. Maintenance of BMP's implemented at the project site shall be performed at the frequency prescribed in the final WQMP. Records of inspections and BMP maintenance shall be maintained by the HOA and documented in the final WQMP, and shall be available for review upon request.	Ongoing
N-11 Litter/Debris Control Program	Owner/Future HOA	Litter patrol, violation inspections, reporting and other litter control activities shall be in conjunction with maintenance activities to ensure good housekeeping of the project's common areas. Litter collection and removal shall be performed on a weekly basis.	Weekly
N-12 Employee Training	Owner/Future HOA	All employees, contractors and subcontractors of the property management shall receive training on the proper use and staging of landscaping and other materials with the potential to impact runoff and proper clean-up of spills and materials.	Monthly
N-14 Common Area Catch Basin Inspection	Owner/Future HOA	To be scheduled by the future HOA as required by the TGD, at least 80% of the project's private drainage facilities shall be inspected annually, and cleaned/maintained monthly, with 100% of facilities inspected and maintained within a two-year period. Drainage facilities include catch basins (storm drain inlets), detention basins, retention basins, sediment basins, open drainage channels, and lift stations.	Once a month to clean debris and silt in the bottom of drainage facilities. Intensified around October 1st of each year prior to the "first flush" storm.
N-15 Vacuum Sweeping of Private Streets and Parking Lots	Owner/Future HOA	The project's private streets shall be swept, at minimum, prior to the start of the traditional rainy season and as needed.	Annually as needed

Structural Source Control BMPs			
S-1 Provide storm drain system stenciling and signage (CASQA New Development BMP Handbook SD-13)	Owner/Future HOA	Storm drains shall be inspected for legibility, at a minimum, once prior to the storm season, no later than October 1st each year. Those determined to be illegible will be re-stenciled as soon as possible. Storm Drain should be stenciled every other year.	Inspect for re-stenciling needs and re-stencil as necessary annually. Re-stencil every other year.
S-4 Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control (Statewide Model Landscape Ordinance; CASQA New Development BMP Handbook SD-12)	Owner/Future HOA	In conjunction with routine landscaping maintenance activities, inspect irrigation for signs of leaks, overspray and repair or adjust accordingly. Adjust system cycle to accommodate seasonal fluctuations in water demand and temperatures. Ensure use of native or drought tolerant/non-invasive plant species to minimize water consumption.	Ongoing
S-6 Protect slopes and channels and provide energy dissipation (CASQA New Development BMP Handbook SD-10)	Owner/Future HOA	Implement the following design principles to the project: avoid disturbance of existing westerly channel, constructing retention and biofiltration basins.	Ongoing

Infiltration Basin	LID BMPs Infiltration Basin				
	Routine Action	**Maintenance Indicator**	**Inspection Frequency**	**Maintenance Frequency**	**Maintenance Activity**
	Trash and Debris	Trash and Debris present	Annually, before wet season starts	Annually	Remove and dispose of trash and debris
	Sediment Management	Sediment depth exceeds 10% of the facility design or drain time exceed 96 hours.	Annually, before wet season starts	Estimated 10 – 75 years	Remove and properly dispose of sediment. Regrade if necessary.
	General Maintenance Inspection	Inlet/outlet structures, side slopes or other features damaged, erosion, burrows, emergence of trees or woody vegetation, graffiti or vandalism, fence damage, etc.	Annually, before wet season starts	Annually and/or after heavy rain event	Corrective action before wet season. Consult engineers if immediate solution is not evident.
	Sediment Management	Sediment depth exceeds 10% of the facility design or standing water for more than 72 hours	Annually, 72 hours after a target storm event	Estimated 10 – 75 years	Remove and properly dispose of sediment. Regrade if necessary.

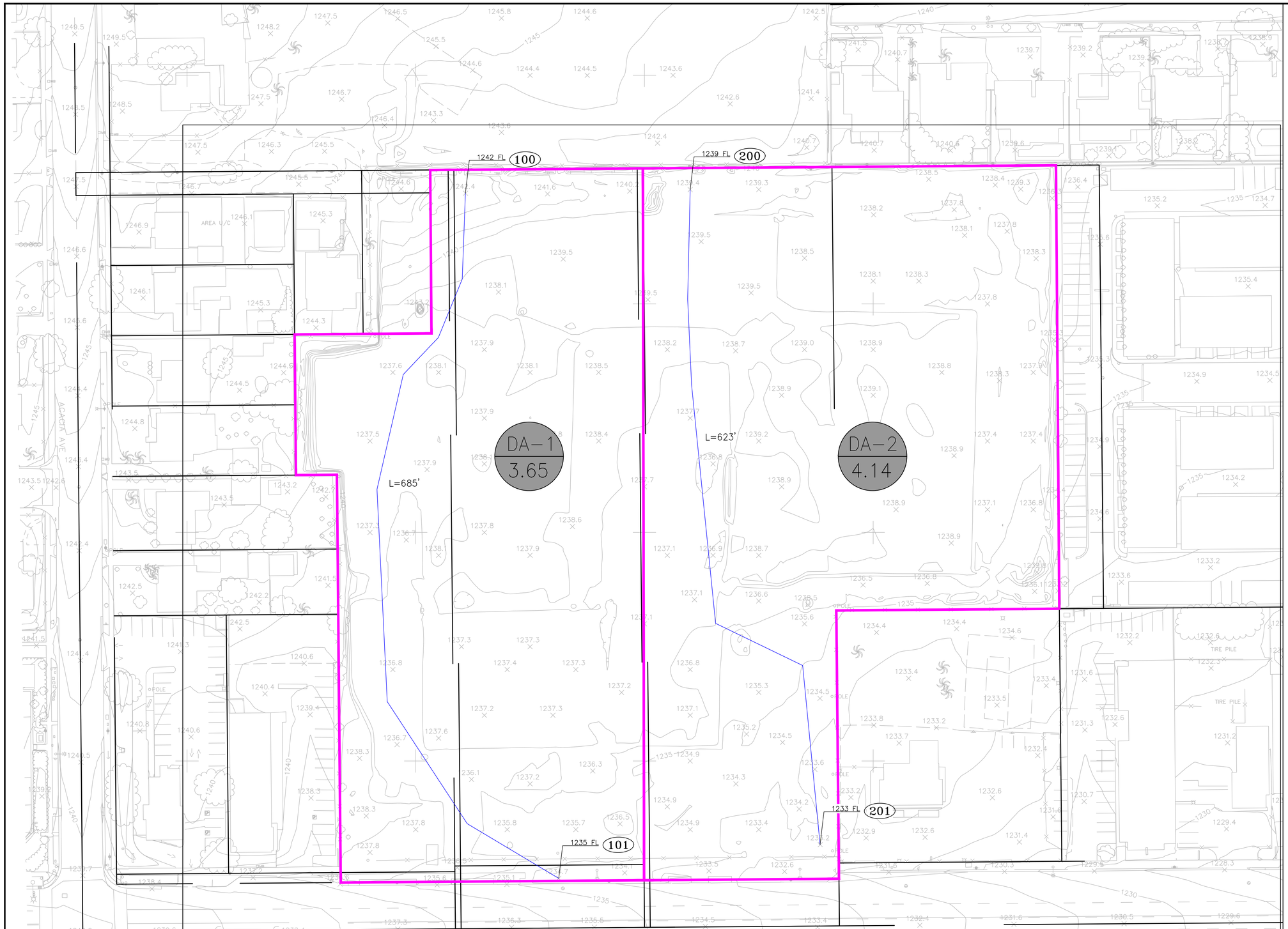
Attachment A

Existing Conditions and WQMP Exhibits



VICINITY MAP
NTS

N



LEGEND

- NO. — HYDROLOGY MODEL NODE NUMBER
- A-1 / 3.98 — TRIBUTARY AREA IN ACRES
- 656' — LENGTH OF FLOW
- DRAINAGE BOUNDARY
- SURFACE FLOW LINE

N

40 0 20 40 80

SCALE 1"= 40'

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL:TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS

DESIGNED BY: RSK DRAWN BY: RSK CHECKED BY: JO

SEAL-DESIGN ENGINEER
REGISTERED PROFESSIONAL ENGINEER
JEFFREY T OKAMOTO
No. 46049
Expiration
12-31-22
CIVIL
STATE OF CALIFORNIA

DEPT.	INIT.	DATE

PREPARED UNDER THE SUPERVISION OF:
JEFFREY T. OKAMOTO, RCE 46049, EXP. 12/31/22 DATE
RECOMMENDED FOR APPROVAL BY XX:
CARLETON W. LOCKWOOD, JR., RCE 45935 DATE
APPROVED BY:
SAVAT KHAMPHOU, CITY ENGINEER, RCE 62019 DATE

HUITT-ZOLLARS
Huitt-Zollars, Inc. Irvine
2603 Main Street, Suite 400
Irvine, California 92614
Phone (949) 988-5815 Fax (949) 988-5820

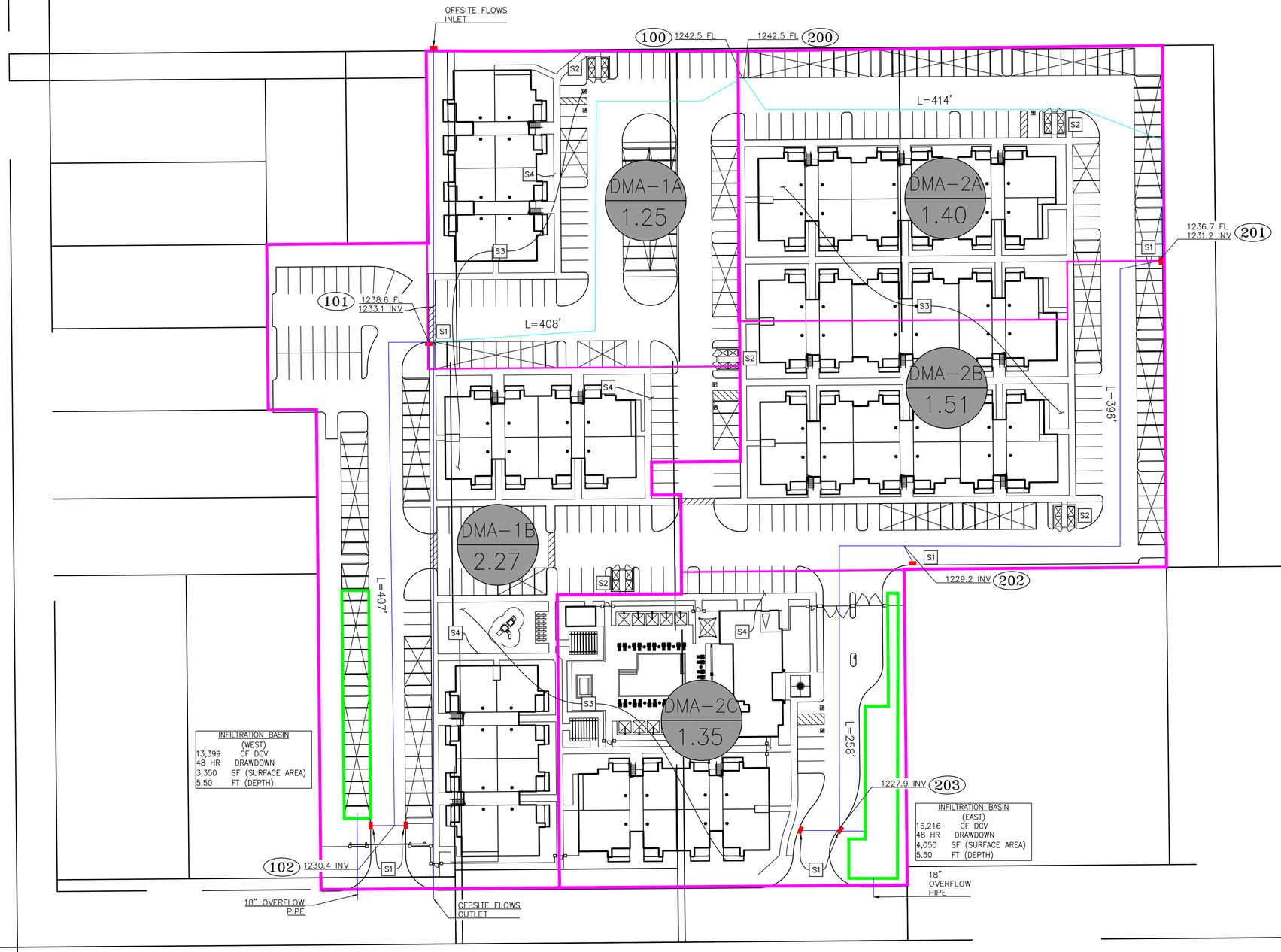
BENCH MARK: CITY OF RIALTO B.M. No. 00063 ELEVATION= 1178.15'
DESCRIPTION:
RIVERSIDE AND MERRILL INTERSECTION ON F.H. AT THE N.E. CORNER.

CITY OF RIALTO
TRACT NO. 19731
EXISTING CONDITIONS DRAINAGE EXHIBHIT

OF X SHEETS

FOR: CENTURY COMMUNITIES | PPD No. | PLAN No.

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STRUCTURAL SOURCE CONTROL BMPS

S1	PROVIDE STORM DRAIN SYSTEM STENCELLING AND SIGNAGE
S2	DESIGN AND CONSTRUCT TRASH AND WASTE STORAGE AREAS TO REDUCE POLLUTION INTRODUCTION
S3	USE EFFECIENT IRRIGATION SYSTEMS AND LANDSCAPE DESIGN, WATER CONSERVATION, SMART CONTROLLERS, AND SOURCE CONTROL.
S4	FINISH GRADE OF LANDSCAPE AREAS AT A MINIMUM OF 1-2 INCHES BELOW TOP OF CURB, SIDEWALKS, OR PAVEMENT

NOTES:

NO FEASIBILITY CONSTRAINTS TO INFILTRATION
NO RUNON TO SITE FROM OFFSITE AREAS

LEGEND

- NO. — HYDROLOGY MODEL NODE NUMBER
- A-1 / 3.98 — TRIBUTARY AREA IN ACRES
- 656' — LENGTH OF FLOW
- DRAINAGE BOUNDARY
- SURFACE FLOW LINE
- SURFACE FLOW LINE
- PROPOSED CATCH BASIN
- UNDERGROUND CHAMBER

N

40 0 20 40 80
SCALE 1"= 40'

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS

DESIGNED BY: RSK DRAWN BY: RSK CHECKED BY: JO

SEAL-DESIGN ENGINEER
REGISTERED PROFESSIONAL ENGINEER
JEFFREY T. OKAMOTO
No. 46049
Expiration 12-31-22
CIVIL
STATE OF CALIFORNIA

DEPT.	INIT.	DATE

PREPARED UNDER THE SUPERVISION OF:
JEFFREY T. OKAMOTO, RCE 46049, EXP. 12/31/22 DATE
RECOMMENDED FOR APPROVAL BY XX:
CARLETON W. LOCKWOOD, JR., RCE 45935 DATE
APPROVED BY:
SAVAT KHAMPHOU, CITY ENGINEER, RCE 62019 DATE

HUITT-ZOLLARS
Huitt-Zollars, Inc. Irvine
2603 Main Street, Suite 400
Irvine, California 92614
Phone (949) 988-5815 Fax (949) 988-5820

BENCH MARK: CITY OF RIALTO B.M. No. 00063 ELEVATION= 1178.15'
DESCRIPTION:
RIVERSIDE AND MERRILL INTERSECTION ON F.H. AT THE N.E. CORNER.

CITY OF RIALTO
TRACT NO. 19731
H&H EXHIBIT

OF 1 SHEETS

FOR: CENTURY COMMUNITIES
PPD No.
PLAN No.

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Attachment B

LID/HCOC BMP Sizing

```
******************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
         (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
        (c) Copyright 1983-2014 Advanced Engineering Software (aes)
            Ver. 21.0  Release Date: 06/01/2014  License ID 1202

                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                              Suite 400
                            949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD EXISTING CONDITION 2 YEAR STORM EVENT                 *
* RYAN KIM HC 08/24/21                                                  *
 ************************************************************************

  FILE NAME: RAE2.DAT
  TIME/DATE OF STUDY: 17:14 08/24/2021
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =    2.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 0.6020

  *ANTECEDENT MOISTURE CONDITION (AMC) I ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

******************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   685.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.40  DOWNSTREAM(FEET) =   1234.70
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.550
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.259
  SUBAREA Tc AND LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        3.65      0.67     1.000    61   17.55
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.67
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      1.95
  TOTAL AREA(ACRES) =      3.65   PEAK FLOW RATE(CFS) =      1.95

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   623.00
  ELEVATION DATA: UPSTREAM(FEET) =   1239.40  DOWNSTREAM(FEET) =   1233.20

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.313
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.269
  SUBAREA Tc AND LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        4.14      0.67     1.000    61   17.31
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.67
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      2.25
  TOTAL AREA(ACRES) =      4.14   PEAK FLOW RATE(CFS) =      2.25
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.1  TC(MIN.) =     17.31
  EFFECTIVE AREA(ACRES) =      4.14  AREA-AVERAGED Fm(INCH/HR)=  0.67
  AREA-AVERAGED Fp(INCH/HR) =  0.67  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =       2.25
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
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                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                             Suite 400
                           949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD EXISTING CONDITIONS 10 YEAR STORM EVENT               *
* RYAN KIM HC 08/21/21                                                  *
 ************************************************************************

  FILE NAME: RAE10.DAT
  TIME/DATE OF STUDY: 17:18 08/24/2021
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 0.9350

  *ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

**************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   685.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.40  DOWNSTREAM(FEET) =   1234.70
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.550
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.955
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        3.65      0.42     1.000    78   17.55
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      5.06
  TOTAL AREA(ACRES) =      3.65   PEAK FLOW RATE(CFS) =      5.06

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   623.00
  ELEVATION DATA: UPSTREAM(FEET) =   1239.40  DOWNSTREAM(FEET) =   1233.20

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.313
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.971
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        4.14      0.42     1.000    78   17.31
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      5.79
  TOTAL AREA(ACRES) =      4.14   PEAK FLOW RATE(CFS) =      5.79
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.1  TC(MIN.) =     17.31
  EFFECTIVE AREA(ACRES) =      4.14  AREA-AVERAGED Fm(INCH/HR)=  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =       5.79
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
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                          Analysis prepared by:

                           Huitt-Zollars, Inc.
                      2603 Main Street, Irvine CA. 92614
                                Suite 400
                               949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD EXISTING CONDITIONS 100 YEAR STORM EVENT              *
* RYAN KIM HC 08/24/21                                                  *
 ************************************************************************

  FILE NAME: RAE100.DAT
  TIME/DATE OF STUDY: 17:21 08/24/2021
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 1.4800

  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

**************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   685.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.40  DOWNSTREAM(FEET) =   1234.70
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.550
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.094
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        3.65      0.18     1.000    93   17.55
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      9.57
  TOTAL AREA(ACRES) =      3.65   PEAK FLOW RATE(CFS) =      9.57

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   623.00
  ELEVATION DATA: UPSTREAM(FEET) =   1239.40  DOWNSTREAM(FEET) =   1233.20

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   17.313
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.120
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        4.14      0.18     1.000    93   17.31
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =     10.95
  TOTAL AREA(ACRES) =      4.14   PEAK FLOW RATE(CFS) =     10.95
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.1  TC(MIN.) =     17.31
  EFFECTIVE AREA(ACRES) =      4.14  AREA-AVERAGED Fm(INCH/HR)=  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =      10.95
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
******************************************************************************
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                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                             Suite 400
                           949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD PROPOSED CONDITION 2 YEAR STORM EVENT                 *
* RYAN KIM HC 08/25/21                                                  *
 ************************************************************************

  FILE NAME: RAP2.DAT
  TIME/DATE OF STUDY: 11:41 08/25/2021
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =    2.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 0.6020

  *ANTECEDENT MOISTURE CONDITION (AMC) I ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

******************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   408.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1238.60
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    9.093
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.867
  SUBAREA Tc AND LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.25      1.33     0.200    17    9.09
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  1.33
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      1.80
  TOTAL AREA(ACRES) =      1.25   PEAK FLOW RATE(CFS) =      1.80

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1233.10  DOWNSTREAM(FEET) =  1230.40
  FLOW LENGTH(FEET) =   407.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   6.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.82
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.80
  PIPE TRAVEL TIME(MIN.) =   1.77    Tc(MIN.) =   10.87
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =     815.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.87
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.678
  SUBAREA LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        2.27      1.33     0.200    17
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  1.33
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    2.27      SUBAREA RUNOFF(CFS) =    2.89
  EFFECTIVE AREA(ACRES) =      3.52   AREA-AVERAGED Fm(INCH/HR) =  0.27
  AREA-AVERAGED Fp(INCH/HR) =  1.33  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        3.5       PEAK FLOW RATE(CFS) =       4.47

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   414.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1236.70

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    8.473
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.948
  SUBAREA Tc AND LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.40      1.33     0.200    17    8.47
```

```
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  1.33
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      2.12
  TOTAL AREA(ACRES) =      1.40   PEAK FLOW RATE(CFS) =      2.12

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1231.20  DOWNSTREAM(FEET) =  1229.20
  FLOW LENGTH(FEET) =   396.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   8.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.54
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       2.12
  PIPE TRAVEL TIME(MIN.) =   1.87    Tc(MIN.) =   10.34
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =     810.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.34
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.729
  SUBAREA LOSS RATE DATA(AMC  I ):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        1.51      1.33     0.200    17
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  1.33
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.51      SUBAREA RUNOFF(CFS) =    1.99
  EFFECTIVE AREA(ACRES) =      2.91   AREA-AVERAGED Fm(INCH/HR) =  0.27
  AREA-AVERAGED Fp(INCH/HR) =  1.33  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        2.9       PEAK FLOW RATE(CFS) =       3.83

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1229.20  DOWNSTREAM(FEET) =  1227.90
  FLOW LENGTH(FEET) =   258.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS  10.7 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.09
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       3.83
  PIPE TRAVEL TIME(MIN.) =   1.05    Tc(MIN.) =   11.39
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    203.00 =    1068.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    203.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   11.39
  *   2 YEAR RAINFALL INTENSITY(INCH/HR) =  1.631
  SUBAREA LOSS RATE DATA(AMC  I ):
```

```
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                  A        1.35      1.33     0.200    17
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  1.33
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.35      SUBAREA RUNOFF(CFS) =    1.66
  EFFECTIVE AREA(ACRES) =      4.26   AREA-AVERAGED Fm(INCH/HR) =  0.27
  AREA-AVERAGED Fp(INCH/HR) =  1.33  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        4.3       PEAK FLOW RATE(CFS) =       5.24
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.3  TC(MIN.) =     11.39
  EFFECTIVE AREA(ACRES) =      4.26  AREA-AVERAGED Fm(INCH/HR)=  0.27
  AREA-AVERAGED Fp(INCH/HR) =  1.33  AREA-AVERAGED Ap = 0.200
  PEAK FLOW RATE(CFS)   =       5.24
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
         (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
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                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                              Suite 400
                            949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD PROPOSED CONDITIONS 10 YEAR STORM EVENT               *
* RYAN KIM HC 08/25/21                                                  *
 ************************************************************************

  FILE NAME: RAP10.DAT
  TIME/DATE OF STUDY: 11:56 08/25/2021
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 0.9350

  *ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

**************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   408.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1238.60
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    9.093
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.900
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.25      0.98     0.200    32    9.09
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      3.04
  TOTAL AREA(ACRES) =      1.25   PEAK FLOW RATE(CFS) =      3.04

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1233.10  DOWNSTREAM(FEET) =  1230.40
  FLOW LENGTH(FEET) =   407.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   8.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.35
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       3.04
  PIPE TRAVEL TIME(MIN.) =   1.56    Tc(MIN.) =   10.65
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =     815.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.65
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.638
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        2.27      0.98     0.200    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    2.27      SUBAREA RUNOFF(CFS) =    4.99
  EFFECTIVE AREA(ACRES) =      3.52   AREA-AVERAGED Fm(INCH/HR) =  0.19
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        3.5       PEAK FLOW RATE(CFS) =       7.74

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   414.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1236.70

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    8.473
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  3.026
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.40      0.98     0.200    32    8.47
```

```
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      3.57
  TOTAL AREA(ACRES) =      1.40   PEAK FLOW RATE(CFS) =      3.57

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1231.20  DOWNSTREAM(FEET) =  1229.20
  FLOW LENGTH(FEET) =   396.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS  10.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.05
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       3.57
  PIPE TRAVEL TIME(MIN.) =   1.63    Tc(MIN.) =   10.10
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =     810.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.10
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.723
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        1.51      0.98     0.200    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.51      SUBAREA RUNOFF(CFS) =    3.44
  EFFECTIVE AREA(ACRES) =      2.91   AREA-AVERAGED Fm(INCH/HR) =  0.20
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        2.9       PEAK FLOW RATE(CFS) =       6.62

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1229.20  DOWNSTREAM(FEET) =  1227.90
  FLOW LENGTH(FEET) =   258.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  13.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.66
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       6.62
  PIPE TRAVEL TIME(MIN.) =   0.92    Tc(MIN.) =   11.03
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    203.00 =    1068.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    203.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   11.03
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.584
  SUBAREA LOSS RATE DATA(AMC  II):
```

```
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                  A        1.35      0.98     0.200    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.35      SUBAREA RUNOFF(CFS) =    2.90
  EFFECTIVE AREA(ACRES) =      4.26   AREA-AVERAGED Fm(INCH/HR) =  0.20
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        4.3       PEAK FLOW RATE(CFS) =       9.16
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.3  TC(MIN.) =     11.03
  EFFECTIVE AREA(ACRES) =      4.26  AREA-AVERAGED Fm(INCH/HR)=  0.20
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap = 0.200
  PEAK FLOW RATE(CFS)   =       9.16
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
         (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
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                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                             Suite 400
                           949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD PROPOSED CONDITIONS 100 YEAR STORM EVENT              *
* RYAN KIM HC 08/25/21                                                  *
 ************************************************************************

  FILE NAME: RAP100.DAT
  TIME/DATE OF STUDY: 11:58 08/25/2021
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 1.4800

  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

**************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   408.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1238.60
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    9.093
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.591
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.25      0.74     0.200    52    9.09
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      5.00
  TOTAL AREA(ACRES) =      1.25   PEAK FLOW RATE(CFS) =      5.00

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1233.10  DOWNSTREAM(FEET) =  1230.40
  FLOW LENGTH(FEET) =   407.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS  12.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.77
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       5.00
  PIPE TRAVEL TIME(MIN.) =   1.42    Tc(MIN.) =   10.52
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =     815.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.52
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.207
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        2.27      0.74     0.200    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    2.27      SUBAREA RUNOFF(CFS) =    8.29
  EFFECTIVE AREA(ACRES) =      3.52   AREA-AVERAGED Fm(INCH/HR) =  0.15
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        3.5       PEAK FLOW RATE(CFS) =      12.86

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   414.00
  ELEVATION DATA: UPSTREAM(FEET) =   1242.50  DOWNSTREAM(FEET) =   1236.70

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    8.473
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.790
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  APARTMENTS                 A        1.40      0.74     0.200    52    8.47
```

```
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA RUNOFF(CFS) =      5.85
  TOTAL AREA(ACRES) =      1.40   PEAK FLOW RATE(CFS) =      5.85

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1231.20  DOWNSTREAM(FEET) =  1229.20
  FLOW LENGTH(FEET) =   396.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  12.2 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.58
  ESTIMATED PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       5.85
  PIPE TRAVEL TIME(MIN.) =   1.44    Tc(MIN.) =    9.92
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =     810.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =    9.92
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.359
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        1.51      0.74     0.200    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.51      SUBAREA RUNOFF(CFS) =    5.72
  EFFECTIVE AREA(ACRES) =      2.91   AREA-AVERAGED Fm(INCH/HR) =  0.15
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        2.9       PEAK FLOW RATE(CFS) =      11.03

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1229.20  DOWNSTREAM(FEET) =  1227.90
  FLOW LENGTH(FEET) =   258.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  14.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.40
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      11.03
  PIPE TRAVEL TIME(MIN.) =   0.80    Tc(MIN.) =   10.71
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    203.00 =    1068.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    203.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   10.71
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.161
  SUBAREA LOSS RATE DATA(AMC III):
```

```
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  APARTMENTS                 A        1.35      0.74     0.200    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
  SUBAREA AREA(ACRES) =    1.35      SUBAREA RUNOFF(CFS) =    4.88
  EFFECTIVE AREA(ACRES) =      4.26   AREA-AVERAGED Fm(INCH/HR) =  0.15
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.20
  TOTAL AREA(ACRES) =        4.3       PEAK FLOW RATE(CFS) =      15.39
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        4.3  TC(MIN.) =     10.71
  EFFECTIVE AREA(ACRES) =      4.26  AREA-AVERAGED Fm(INCH/HR)=  0.15
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap = 0.200
  PEAK FLOW RATE(CFS)   =      15.39
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
         (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
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            Ver. 21.0  Release Date: 06/01/2014  License ID 1202

                        Analysis prepared by:

                         Huitt-Zollars, Inc.
                    2603 Main Street, Irvine CA. 92614
                             Suite 400
                           949-988-5815

 ************************* DESCRIPTION OF STUDY *************************
* RIALTO APARTMENTS                                                     *
* RATIONAL METHOD OFFISTE FLOWS 100 YEAR STORM EVENT                    *
* RYAN KIM HC 08/26/21                                                  *
 ************************************************************************

  FILE NAME: RAO100.DAT
  TIME/DATE OF STUDY: 11:12 08/26/2021
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED LOGARITHMIC INTERPOLATION USED FOR RAINFALL*

  SLOPE OF INTENSITY DURATION CURVE(LOG(I;IN/HR) vs. LOG(Tc;MIN)) = 0.6000
  USER SPECIFIED 1-HOUR INTENSITY(INCH/HOUR) = 1.4800

  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

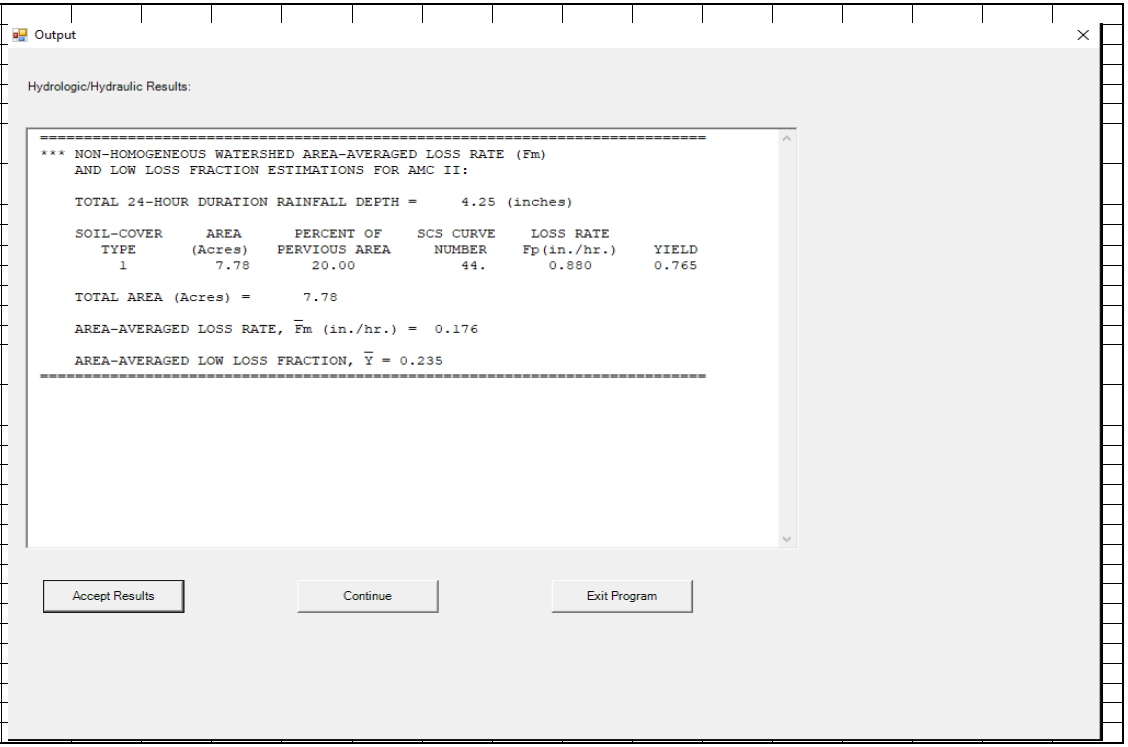
**************************************************************************
  FLOW PROCESS FROM NODE    300.00 TO NODE    301.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   345.00
  ELEVATION DATA: UPSTREAM(FEET) =   1250.00  DOWNSTREAM(FEET) =   1243.00
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   11.853
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.916
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        3.91      0.18     1.000    93   11.85
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =     13.15
  TOTAL AREA(ACRES) =      3.91   PEAK FLOW RATE(CFS) =     13.15

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1243.00  DOWNSTREAM(FEET) =  1235.00
  FLOW LENGTH(FEET) =   631.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  13.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.95
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      13.15
  PIPE TRAVEL TIME(MIN.) =   1.32    Tc(MIN.) =   13.18
  LONGEST FLOWPATH FROM NODE    300.00 TO NODE    302.00 =     976.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =         3.9  TC(MIN.) =     13.18
  EFFECTIVE AREA(ACRES) =      3.91  AREA-AVERAGED Fm(INCH/HR)=  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =      13.15
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

Drainage Area 1 (West) 3.52 acres				
Stage (ft)	Storage (cf)	Storage (af)	Outflow (cfs)	Description
1	3350	0.076905418	0.089	infiltration only
2	6700	0.153810836	0.089	infiltration only
3	10050	0.230716253	0.089	infiltration only
4	13400	0.307621671	0.089	infiltration only
5	16750	0.384527089	4.485	Orifice Eqn 18" RCP + infiltration
5.5	18425	0.422979798	7.703	Orifice Eqn 18" RCP + infiltration

Drainage Area 2 (East) 4.26 acres				
Stage (ft)	Storage (cf)	Storage (af)	Outflow (cfs)	Description
1	4050	0.092975207	0.108	infiltration only
2	8100	0.185950413	0.108	infiltration only
3	12150	0.27892562	0.108	infiltration only
4	16200	0.371900826	0.108	infiltration only
5	20250	0.464876033	4.504	Orifice Eqn 18" RCP + infiltration
5.5	22275	0.511363636	7.722	Orifice Eqn 18" RCP + infiltration



```
**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                           Analysis prepared by:

                            Huitt-Zollars, Inc.
                         2603 Main Street, Irvine CA. 92614
                                  Suite 400
                                949-988-5815

**************************************************************************
--------------------------------------------------------------------------

 Problem Descriptions:
  Rialto Apartments
  Flood Routing 10 year event
  Ryan Kim HC 08/25/21
==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.25 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1          4.26       20.00            44.       0.880       0.765
         2          3.52       20.00            44.       0.880       0.765

    TOTAL AREA (Acres) =      7.78

                          _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.176
                                  _
```

```
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.235
==========================================================================

 Problem Descriptions:
  Rialto Apartments
  Flood Routing 10 year event
  Ryan Kim HC 08/25/21
--------------------------------------------------------------------------


    RATIONAL METHOD CALIBRATION COEFFICIENT = 0.90
    TOTAL CATCHMENT AREA(ACRES) =    3.52
    SOIL-LOSS RATE, Fm,(INCH/HR) =  0.176
    LOW LOSS FRACTION = 0.235
    TIME OF CONCENTRATION(MIN.) = 10.65
    SMALL AREA PEAK Q COMPUTED USING PEAK FLOW RATE FORMULA
    USER SPECIFIED RAINFALL VALUES ARE USED
    RETURN FREQUENCY(YEARS) =  10
       5-MINUTE POINT RAINFALL VALUE(INCHES) =  0.25
      30-MINUTE POINT RAINFALL VALUE(INCHES) =  0.65
       1-HOUR   POINT RAINFALL VALUE(INCHES) =  0.94
       3-HOUR   POINT RAINFALL VALUE(INCHES) =  1.65
       6-HOUR   POINT RAINFALL VALUE(INCHES) =  2.32
      24-HOUR   POINT RAINFALL VALUE(INCHES) =  4.25

--------------------------------------------------------------------------

    TOTAL CATCHMENT   RUNOFF  VOLUME(ACRE-FEET) =     0.87
    TOTAL CATCHMENT SOIL-LOSS VOLUME(ACRE-FEET) =     0.38

**************************************************************************
  TIME     VOLUME       Q    0.        2.5       5.0       7.5      10.0
 (HOURS)    (AF)      (CFS)
--------------------------------------------------------------------------
  0.03      0.0000      0.00  Q         .         .         .         .
  0.20      0.0014      0.19  Q         .         .         .         .
  0.38      0.0041      0.19  Q         .         .         .         .
```

0.56	0.0069	0.19	Q	.	.	.	.
0.74	0.0097	0.19	Q	.	.	.	.
0.91	0.0125	0.19	Q	.	.	.	.
1.09	0.0154	0.19	Q	.	.	.	.
1.27	0.0182	0.20	Q	.	.	.	.
1.45	0.0211	0.20	Q	.	.	.	.
1.62	0.0240	0.20	Q	.	.	.	.
1.80	0.0269	0.20	Q	.	.	.	.
1.98	0.0298	0.20	Q	.	.	.	.
2.16	0.0328	0.20	Q	.	.	.	.
2.33	0.0358	0.20	Q	.	.	.	.
2.51	0.0388	0.20	Q	.	.	.	.
2.69	0.0418	0.21	Q	.	.	.	.
2.87	0.0448	0.21	Q	.	.	.	.
3.04	0.0479	0.21	Q	.	.	.	.
3.22	0.0510	0.21	Q	.	.	.	.
3.40	0.0541	0.21	Q	.	.	.	.
3.58	0.0572	0.21	Q	.	.	.	.
3.75	0.0604	0.22	Q	.	.	.	.
3.93	0.0636	0.22	Q	.	.	.	.
4.11	0.0668	0.22	Q	.	.	.	.
4.29	0.0700	0.22	Q	.	.	.	.
4.46	0.0733	0.22	Q	.	.	.	.
4.64	0.0766	0.23	Q	.	.	.	.
4.82	0.0799	0.23	Q	.	.	.	.
5.00	0.0833	0.23	Q	.	.	.	.
5.17	0.0867	0.23	Q	.	.	.	.
5.35	0.0901	0.23	Q	.	.	.	.
5.53	0.0935	0.24	Q	.	.	.	.
5.71	0.0970	0.24	Q	.	.	.	.
5.88	0.1005	0.24	Q	.	.	.	.
6.06	0.1041	0.24	Q	.	.	.	.
6.24	0.1076	0.25	Q	.	.	.	.
6.42	0.1113	0.25	Q	.	.	.	.
6.59	0.1149	0.25	.Q	.	.	.	.
6.77	0.1186	0.25	.Q	.	.	.	.
6.95	0.1223	0.26	.Q	.	.	.	.

7.13	0.1261	0.26	.Q	.	.	.	.
7.30	0.1299	0.26	.Q	.	.	.	.
7.48	0.1338	0.26	.Q	.	.	.	.
7.66	0.1377	0.27	.Q	.	.	.	.
7.84	0.1417	0.27	.Q	.	.	.	.
8.01	0.1457	0.27	.Q	.	.	.	.
8.19	0.1497	0.28	.Q	.	.	.	.
8.37	0.1538	0.28	.Q	.	.	.	.
8.55	0.1580	0.28	.Q	.	.	.	.
8.72	0.1622	0.29	.Q	.	.	.	.
8.90	0.1664	0.29	.Q	.	.	.	.
9.08	0.1708	0.30	.Q	.	.	.	.
9.26	0.1751	0.30	.Q	.	.	.	.
9.43	0.1796	0.31	.Q	.	.	.	.
9.61	0.1841	0.31	.Q	.	.	.	.
9.79	0.1887	0.32	.Q	.	.	.	.
9.97	0.1934	0.32	.Q	.	.	.	.
10.14	0.1981	0.33	.Q	.	.	.	.
10.32	0.2029	0.33	.Q	.	.	.	.
10.50	0.2078	0.34	.Q	.	.	.	.
10.68	0.2128	0.34	.Q	.	.	.	.
10.85	0.2179	0.35	.Q	.	.	.	.
11.03	0.2231	0.36	.Q	.	.	.	.
11.21	0.2283	0.36	.Q	.	.	.	.
11.39	0.2337	0.37	.Q	.	.	.	.
11.56	0.2392	0.38	.Q	.	.	.	.
11.74	0.2448	0.39	.Q	.	.	.	.
11.92	0.2506	0.40	.Q	.	.	.	.
12.10	0.2565	0.40	.Q	.	.	.	.
12.27	0.2629	0.47	.Q	.	.	.	.
12.45	0.2698	0.48	.Q	.	.	.	.
12.63	0.2770	0.49	.Q	.	.	.	.
12.80	0.2843	0.50	. Q	.	.	.	.
12.98	0.2918	0.52	. Q	.	.	.	.
13.16	0.2995	0.53	. Q	.	.	.	.
13.34	0.3075	0.55	. Q	.	.	.	.
13.52	0.3157	0.57	. Q	.	.	.	.

13.69	0.3242	0.59	. Q . . . .
13.87	0.3330	0.61	. Q . . . .
14.05	0.3422	0.64	. Q . . . .
14.23	0.3520	0.69	. Q . . . .
14.40	0.3626	0.74	. Q . . . .
14.58	0.3737	0.77	. Q . . . .
14.76	0.3854	0.83	. Q . . . .
14.93	0.3978	0.87	. Q . . . .
15.11	0.4112	0.96	. Q . . . .
15.29	0.4258	1.02	. Q . . . .
15.47	0.4420	1.20	. Q . . . .
15.65	0.4605	1.32	. Q . . . .
15.82	0.4831	1.76	. Q . . . .
16.00	0.5136	2.40	. Q. . . .
16.18	0.5765	6.18	. . . Q . .
16.35	0.6328	1.49	. Q . . . .
16.53	0.6518	1.09	. Q . . . .
16.71	0.6665	0.91	. Q . . . .
16.89	0.6790	0.80	. Q . . . .
17.07	0.6902	0.72	. Q . . . .
17.24	0.7000	0.63	. Q . . . .
17.42	0.7089	0.58	. Q . . . .
17.60	0.7171	0.54	. Q . . . .
17.77	0.7248	0.51	. Q . . . .
17.95	0.7322	0.49	.Q . . . .
18.13	0.7390	0.45	.Q . . . .
18.31	0.7452	0.39	.Q . . . .
18.48	0.7509	0.37	.Q . . . .
18.66	0.7562	0.36	.Q . . . .
18.84	0.7614	0.35	.Q . . . .
19.02	0.7664	0.33	.Q . . . .
19.19	0.7712	0.32	.Q . . . .
19.37	0.7759	0.31	.Q . . . .
19.55	0.7804	0.30	.Q . . . .
19.73	0.7848	0.29	.Q . . . .
19.91	0.7891	0.29	.Q . . . .
20.08	0.7932	0.28	.Q . . . .

20.26	0.7973	0.27	.Q	.	.	.	.
20.44	0.8012	0.27	.Q	.	.	.	.
20.61	0.8051	0.26	.Q	.	.	.	.
20.79	0.8088	0.25	.Q	.	.	.	.
20.97	0.8125	0.25	Q	.	.	.	.
21.15	0.8162	0.24	Q	.	.	.	.
21.33	0.8197	0.24	Q	.	.	.	.
21.50	0.8232	0.23	Q	.	.	.	.
21.68	0.8266	0.23	Q	.	.	.	.
21.86	0.8300	0.23	Q	.	.	.	.
22.03	0.8333	0.22	Q	.	.	.	.
22.21	0.8365	0.22	Q	.	.	.	.
22.39	0.8397	0.22	Q	.	.	.	.
22.57	0.8428	0.21	Q	.	.	.	.
22.74	0.8459	0.21	Q	.	.	.	.
22.92	0.8490	0.21	Q	.	.	.	.
23.10	0.8519	0.20	Q	.	.	.	.
23.28	0.8549	0.20	Q	.	.	.	.
23.45	0.8578	0.20	Q	.	.	.	.
23.63	0.8607	0.19	Q	.	.	.	.
23.81	0.8635	0.19	Q	.	.	.	.
23.99	0.8663	0.19	Q	.	.	.	.
24.17	0.8691	0.19	Q	.	.	.	.
24.34	0.8705	0.00	Q	.	.	.	.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1448.4
10%	202.3
20%	53.2
30%	21.3

```
              40%                                10.6
              50%                                10.6
              60%                                10.6
              70%                                10.6
              80%                                10.6
              90%                                10.6

 Problem Descriptions:
  Rialto Apartments
  Flood Routing 10 year event
  Ryan Kim HC 08/25/21
------------------------------------------------------------------------------


    RATIONAL METHOD CALIBRATION COEFFICIENT = 0.90
    TOTAL CATCHMENT AREA(ACRES) =    3.52
    SOIL-LOSS RATE, Fm,(INCH/HR) =  0.176
    LOW LOSS FRACTION = 0.235
    TIME OF CONCENTRATION(MIN.) = 10.65
    SMALL AREA PEAK Q COMPUTED USING PEAK FLOW RATE FORMULA
    USER SPECIFIED RAINFALL VALUES ARE USED
    RETURN FREQUENCY(YEARS) =  10
       5-MINUTE POINT RAINFALL VALUE(INCHES) =  0.25
      30-MINUTE POINT RAINFALL VALUE(INCHES) =  0.65
       1-HOUR   POINT RAINFALL VALUE(INCHES) =  0.94
       3-HOUR   POINT RAINFALL VALUE(INCHES) =  1.65
       6-HOUR   POINT RAINFALL VALUE(INCHES) =  2.32
      24-HOUR   POINT RAINFALL VALUE(INCHES) =  4.25

------------------------------------------------------------------------------

    TOTAL CATCHMENT   RUNOFF  VOLUME(ACRE-FEET) =     0.87
    TOTAL CATCHMENT SOIL-LOSS VOLUME(ACRE-FEET) =     0.38

******************************************************************************
  TIME     VOLUME       Q    0.        2.5       5.0       7.5      10.0
 (HOURS)    (AF)      (CFS)
```

0.03	0.0000	0.00	Q	.	.	.	.
0.20	0.0014	0.19	Q	.	.	.	.
0.38	0.0041	0.19	Q	.	.	.	.
0.56	0.0069	0.19	Q	.	.	.	.
0.74	0.0097	0.19	Q	.	.	.	.
0.91	0.0125	0.19	Q	.	.	.	.
1.09	0.0154	0.19	Q	.	.	.	.
1.27	0.0182	0.20	Q	.	.	.	.
1.45	0.0211	0.20	Q	.	.	.	.
1.62	0.0240	0.20	Q	.	.	.	.
1.80	0.0269	0.20	Q	.	.	.	.
1.98	0.0298	0.20	Q	.	.	.	.
2.16	0.0328	0.20	Q	.	.	.	.
2.33	0.0358	0.20	Q	.	.	.	.
2.51	0.0388	0.20	Q	.	.	.	.
2.69	0.0418	0.21	Q	.	.	.	.
2.87	0.0448	0.21	Q	.	.	.	.
3.04	0.0479	0.21	Q	.	.	.	.
3.22	0.0510	0.21	Q	.	.	.	.
3.40	0.0541	0.21	Q	.	.	.	.
3.58	0.0572	0.21	Q	.	.	.	.
3.75	0.0604	0.22	Q	.	.	.	.
3.93	0.0636	0.22	Q	.	.	.	.
4.11	0.0668	0.22	Q	.	.	.	.
4.29	0.0700	0.22	Q	.	.	.	.
4.46	0.0733	0.22	Q	.	.	.	.
4.64	0.0766	0.23	Q	.	.	.	.
4.82	0.0799	0.23	Q	.	.	.	.
5.00	0.0833	0.23	Q	.	.	.	.
5.17	0.0867	0.23	Q	.	.	.	.
5.35	0.0901	0.23	Q	.	.	.	.
5.53	0.0935	0.24	Q	.	.	.	.
5.71	0.0970	0.24	Q	.	.	.	.
5.88	0.1005	0.24	Q	.	.	.	.
6.06	0.1041	0.24	Q	.	.	.	.
6.24	0.1076	0.25	Q	.	.	.	.

6.42	0.1113	0.25	Q	.	.	.	.
6.59	0.1149	0.25	.Q	.	.	.	.
6.77	0.1186	0.25	.Q	.	.	.	.
6.95	0.1223	0.26	.Q	.	.	.	.
7.13	0.1261	0.26	.Q	.	.	.	.
7.30	0.1299	0.26	.Q	.	.	.	.
7.48	0.1338	0.26	.Q	.	.	.	.
7.66	0.1377	0.27	.Q	.	.	.	.
7.84	0.1417	0.27	.Q	.	.	.	.
8.01	0.1457	0.27	.Q	.	.	.	.
8.19	0.1497	0.28	.Q	.	.	.	.
8.37	0.1538	0.28	.Q	.	.	.	.
8.55	0.1580	0.28	.Q	.	.	.	.
8.72	0.1622	0.29	.Q	.	.	.	.
8.90	0.1664	0.29	.Q	.	.	.	.
9.08	0.1708	0.30	.Q	.	.	.	.
9.26	0.1751	0.30	.Q	.	.	.	.
9.43	0.1796	0.31	.Q	.	.	.	.
9.61	0.1841	0.31	.Q	.	.	.	.
9.79	0.1887	0.32	.Q	.	.	.	.
9.97	0.1934	0.32	.Q	.	.	.	.
10.14	0.1981	0.33	.Q	.	.	.	.
10.32	0.2029	0.33	.Q	.	.	.	.
10.50	0.2078	0.34	.Q	.	.	.	.
10.68	0.2128	0.34	.Q	.	.	.	.
10.85	0.2179	0.35	.Q	.	.	.	.
11.03	0.2231	0.36	.Q	.	.	.	.
11.21	0.2283	0.36	.Q	.	.	.	.
11.39	0.2337	0.37	.Q	.	.	.	.
11.56	0.2392	0.38	.Q	.	.	.	.
11.74	0.2448	0.39	.Q	.	.	.	.
11.92	0.2506	0.40	.Q	.	.	.	.
12.10	0.2565	0.40	.Q	.	.	.	.
12.27	0.2629	0.47	.Q	.	.	.	.
12.45	0.2698	0.48	.Q	.	.	.	.
12.63	0.2770	0.49	.Q	.	.	.	.
12.80	0.2843	0.50	. Q	.	.	.	.

12.98	0.2918	0.52	. Q . . . .
13.16	0.2995	0.53	. Q . . . .
13.34	0.3075	0.55	. Q . . . .
13.52	0.3157	0.57	. Q . . . .
13.69	0.3242	0.59	. Q . . . .
13.87	0.3330	0.61	. Q . . . .
14.05	0.3422	0.64	. Q . . . .
14.23	0.3520	0.69	. Q . . . .
14.40	0.3626	0.74	. Q . . . .
14.58	0.3737	0.77	. Q . . . .
14.76	0.3854	0.83	. Q . . . .
14.93	0.3978	0.87	. Q . . . .
15.11	0.4112	0.96	. Q . . . .
15.29	0.4258	1.02	. Q . . . .
15.47	0.4420	1.20	. Q . . . .
15.65	0.4605	1.32	. Q . . . .
15.82	0.4831	1.76	. Q . . . .
16.00	0.5136	2.40	. Q. . . .
16.18	0.5765	6.18	. . . Q . .
16.35	0.6328	1.49	. Q . . . .
16.53	0.6518	1.09	. Q . . . .
16.71	0.6665	0.91	. Q . . . .
16.89	0.6790	0.80	. Q . . . .
17.07	0.6902	0.72	. Q . . . .
17.24	0.7000	0.63	. Q . . . .
17.42	0.7089	0.58	. Q . . . .
17.60	0.7171	0.54	. Q . . . .
17.77	0.7248	0.51	. Q . . . .
17.95	0.7322	0.49	.Q . . . .
18.13	0.7390	0.45	.Q . . . .
18.31	0.7452	0.39	.Q . . . .
18.48	0.7509	0.37	.Q . . . .
18.66	0.7562	0.36	.Q . . . .
18.84	0.7614	0.35	.Q . . . .
19.02	0.7664	0.33	.Q . . . .
19.19	0.7712	0.32	.Q . . . .
19.37	0.7759	0.31	.Q . . . .

19.55	0.7804	0.30	.Q	.	.	.	.
19.73	0.7848	0.29	.Q	.	.	.	.
19.91	0.7891	0.29	.Q	.	.	.	.
20.08	0.7932	0.28	.Q	.	.	.	.
20.26	0.7973	0.27	.Q	.	.	.	.
20.44	0.8012	0.27	.Q	.	.	.	.
20.61	0.8051	0.26	.Q	.	.	.	.
20.79	0.8088	0.25	.Q	.	.	.	.
20.97	0.8125	0.25	Q	.	.	.	.
21.15	0.8162	0.24	Q	.	.	.	.
21.33	0.8197	0.24	Q	.	.	.	.
21.50	0.8232	0.23	Q	.	.	.	.
21.68	0.8266	0.23	Q	.	.	.	.
21.86	0.8300	0.23	Q	.	.	.	.
22.03	0.8333	0.22	Q	.	.	.	.
22.21	0.8365	0.22	Q	.	.	.	.
22.39	0.8397	0.22	Q	.	.	.	.
22.57	0.8428	0.21	Q	.	.	.	.
22.74	0.8459	0.21	Q	.	.	.	.
22.92	0.8490	0.21	Q	.	.	.	.
23.10	0.8519	0.20	Q	.	.	.	.
23.28	0.8549	0.20	Q	.	.	.	.
23.45	0.8578	0.20	Q	.	.	.	.
23.63	0.8607	0.19	Q	.	.	.	.
23.81	0.8635	0.19	Q	.	.	.	.
23.99	0.8663	0.19	Q	.	.	.	.
24.17	0.8691	0.19	Q	.	.	.	.
24.34	0.8705	0.00	Q	.	.	.	.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
==========	=========

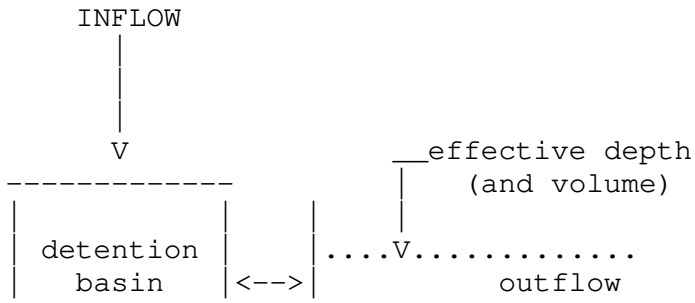
0%	1448.4
10%	202.3
20%	53.2
30%	21.3
40%	10.6
50%	10.6
60%	10.6
70%	10.6
80%	10.6
90%	10.6

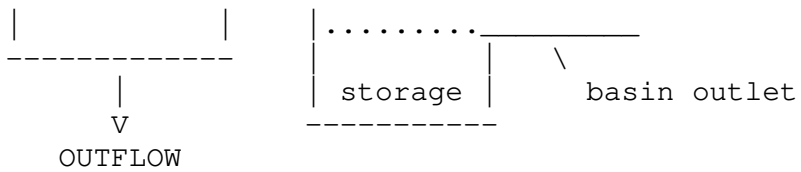
Problem Descriptions:
Rialto Apartments
Flood Routing 10 year event DA1
Ryan Kim HC 08/25/21

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FLOW-THROUGH DETENTION BASIN MODEL

SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
CONSTANT HYDROGRAPH TIME UNIT(MINUTES) = 10.650
DEAD STORAGE(AF) = 0.00
SPECIFIED DEAD STORAGE(AF) FILLED = 0.00
ASSUMED INITIAL DEPTH(FEET) IN STORAGE BASIN = 0.00





DEPTH-VS.-STORAGE AND DEPTH-VS.-DISCHARGE INFORMATION:
TOTAL NUMBER OF BASIN DEPTH INFORMATION ENTRIES = 7

*BASIN-DEPTH (FEET)	STORAGE (ACRE-FEET)	OUTFLOW (CFS) **	**BASIN-DEPTH (FEET)	STORAGE (ACRE-FEET)	OUTFLOW (CFS) *
0.000	0.000	0.000**	1.000	0.077	0.089*
2.000	0.154	0.089**	3.000	0.231	0.089*
4.000	0.308	0.089**	5.000	0.384	4.485*
5.500	0.423	7.703**			

BASIN STORAGE, OUTFLOW AND DEPTH ROUTING VALUES:

INTERVAL NUMBER	DEPTH (FEET)	{S-O*DT/2} (ACRE-FEET)	{S+O*DT/2} (ACRE-FEET)
1	0.00	0.00000	0.00000
2	1.00	0.07625	0.07755
3	2.00	0.15335	0.15465
4	3.00	0.23005	0.23135
5	4.00	0.30695	0.30825
6	5.00	0.35160	0.41740
7	5.50	0.36650	0.47950

WHERE S=STORAGE(AF);O=OUTFLOW(AF/MIN.);DT=UNIT INTERVAL(MIN.)

DETENTION BASIN ROUTING RESULTS:
NOTE: COMPUTED BASIN DEPTH, OUTFLOW, AND STORAGE QUANTITIES OCCUR AT THE GIVEN TIME. BASIN INFLOW VALUES REPRESENT THE AVERAGE INFLOW DURING THE RECENT HYDROGRAPH UNIT INTERVAL.

TIME (HRS)	DEAD-STORAGE FILLED(AF)	INFLOW (CFS)	EFFECTIVE DEPTH(FT)	OUTFLOW (CFS)	EFFECTIVE VOLUME(AF)
0.025	0.000	0.00	0.00	0.00	0.000

0.203	0.000	0.19	0.04	0.00	0.003
0.380	0.000	0.19	0.07	0.00	0.005
0.558	0.000	0.19	0.11	0.01	0.008
0.735	0.000	0.19	0.14	0.01	0.011
0.913	0.000	0.19	0.17	0.01	0.013
1.090	0.000	0.19	0.21	0.02	0.016
1.268	0.000	0.20	0.24	0.02	0.019
1.445	0.000	0.20	0.27	0.02	0.021
1.623	0.000	0.20	0.31	0.03	0.024
1.800	0.000	0.20	0.34	0.03	0.026
1.978	0.000	0.20	0.37	0.03	0.029
2.155	0.000	0.20	0.40	0.03	0.031
2.333	0.000	0.20	0.44	0.04	0.033
2.510	0.000	0.20	0.47	0.04	0.036
2.688	0.000	0.21	0.50	0.04	0.038
2.865	0.000	0.21	0.53	0.05	0.041
3.043	0.000	0.21	0.56	0.05	0.043
3.220	0.000	0.21	0.59	0.05	0.045
3.398	0.000	0.21	0.62	0.05	0.048
3.575	0.000	0.21	0.65	0.06	0.050
3.753	0.000	0.22	0.68	0.06	0.052
3.930	0.000	0.22	0.71	0.06	0.055
4.108	0.000	0.22	0.74	0.06	0.057
4.285	0.000	0.22	0.77	0.07	0.059
4.463	0.000	0.22	0.80	0.07	0.061
4.640	0.000	0.23	0.83	0.07	0.064
4.818	0.000	0.23	0.86	0.08	0.066
4.995	0.000	0.23	0.89	0.08	0.068
5.173	0.000	0.23	0.92	0.08	0.070
5.350	0.000	0.23	0.94	0.08	0.073
5.528	0.000	0.24	0.97	0.09	0.075
5.705	0.000	0.24	1.00	0.09	0.077
5.883	0.000	0.24	1.03	0.09	0.079
6.060	0.000	0.24	1.06	0.09	0.082
6.238	0.000	0.25	1.09	0.09	0.084
6.415	0.000	0.25	1.12	0.09	0.086
6.593	0.000	0.25	1.15	0.09	0.089

6.770	0.000	0.25	1.18	0.09	0.091
6.948	0.000	0.26	1.21	0.09	0.093
7.125	0.000	0.26	1.25	0.09	0.096
7.303	0.000	0.26	1.28	0.09	0.098
7.480	0.000	0.26	1.31	0.09	0.101
7.658	0.000	0.27	1.35	0.09	0.104
7.835	0.000	0.27	1.38	0.09	0.106
8.013	0.000	0.27	1.42	0.09	0.109
8.190	0.000	0.28	1.45	0.09	0.112
8.368	0.000	0.28	1.49	0.09	0.115
8.545	0.000	0.28	1.53	0.09	0.117
8.723	0.000	0.29	1.56	0.09	0.120
8.900	0.000	0.29	1.60	0.09	0.123
9.078	0.000	0.30	1.64	0.09	0.126
9.255	0.000	0.30	1.68	0.09	0.130
9.432	0.000	0.31	1.72	0.09	0.133
9.610	0.000	0.31	1.77	0.09	0.136
9.788	0.000	0.32	1.81	0.09	0.139
9.965	0.000	0.32	1.85	0.09	0.143
10.142	0.000	0.33	1.90	0.09	0.146
10.320	0.000	0.33	1.94	0.09	0.150
10.498	0.000	0.34	1.99	0.09	0.153
10.675	0.000	0.34	2.04	0.09	0.157
10.852	0.000	0.35	2.09	0.09	0.161
11.030	0.000	0.36	2.14	0.09	0.165
11.208	0.000	0.36	2.19	0.09	0.169
11.385	0.000	0.37	2.25	0.09	0.173
11.562	0.000	0.38	2.30	0.09	0.177
11.740	0.000	0.39	2.36	0.09	0.182
11.917	0.000	0.40	2.42	0.09	0.186
12.095	0.000	0.40	2.48	0.09	0.191
12.273	0.000	0.47	2.55	0.09	0.196
12.450	0.000	0.48	2.63	0.09	0.202
12.628	0.000	0.49	2.70	0.09	0.208
12.805	0.000	0.50	2.78	0.09	0.214
12.983	0.000	0.52	2.87	0.09	0.220
13.160	0.000	0.53	2.95	0.09	0.227

13.337	0.000	0.55	3.04	0.09	0.234
13.515	0.000	0.57	3.13	0.09	0.241
13.693	0.000	0.59	3.23	0.09	0.248
13.870	0.000	0.61	3.33	0.09	0.256
14.047	0.000	0.64	3.43	0.09	0.264
14.225	0.000	0.69	3.55	0.09	0.273
14.403	0.000	0.74	3.67	0.09	0.282
14.580	0.000	0.77	3.80	0.09	0.292
14.758	0.000	0.83	3.94	0.09	0.303
14.935	0.000	0.87	4.06	0.23	0.313
15.113	0.000	0.96	4.14	0.54	0.319
15.290	0.000	1.02	4.18	0.81	0.322
15.467	0.000	1.20	4.22	0.99	0.325
15.645	0.000	1.32	4.26	1.15	0.327
15.822	0.000	1.76	4.33	1.38	0.333
16.000	0.000	2.40	4.45	1.79	0.342
16.177	0.000	6.18	5.00	3.27	0.385
16.355	0.000	1.49	4.60	3.60	0.354
16.532	0.000	1.09	4.38	2.24	0.337
16.710	0.000	0.91	4.27	1.51	0.328
16.888	0.000	0.80	4.20	1.12	0.323
17.065	0.000	0.72	4.17	0.91	0.321
17.243	0.000	0.63	4.14	0.77	0.318
17.420	0.000	0.58	4.12	0.67	0.317
17.597	0.000	0.54	4.11	0.61	0.316
17.775	0.000	0.51	4.10	0.56	0.315
17.953	0.000	0.49	4.10	0.52	0.315
18.130	0.000	0.45	4.09	0.49	0.314
18.307	0.000	0.39	4.08	0.45	0.313
18.485	0.000	0.37	4.07	0.41	0.313
18.663	0.000	0.36	4.06	0.39	0.313
18.840	0.000	0.35	4.06	0.37	0.312
19.017	0.000	0.33	4.06	0.35	0.312
19.195	0.000	0.32	4.06	0.34	0.312
19.372	0.000	0.31	4.05	0.33	0.312
19.550	0.000	0.30	4.05	0.32	0.311
19.728	0.000	0.29	4.05	0.31	0.311

19.905	0.000	0.29	4.05	0.30	0.311
20.082	0.000	0.28	4.04	0.29	0.311
20.260	0.000	0.27	4.04	0.28	0.311
20.438	0.000	0.27	4.04	0.27	0.311
20.615	0.000	0.26	4.04	0.27	0.311
20.793	0.000	0.25	4.04	0.26	0.311
20.970	0.000	0.25	4.04	0.26	0.310
21.147	0.000	0.24	4.04	0.25	0.310
21.325	0.000	0.24	4.04	0.25	0.310
21.503	0.000	0.23	4.03	0.24	0.310
21.680	0.000	0.23	4.03	0.24	0.310
21.858	0.000	0.23	4.03	0.23	0.310
22.035	0.000	0.22	4.03	0.23	0.310
22.212	0.000	0.22	4.03	0.22	0.310
22.390	0.000	0.22	4.03	0.22	0.310
22.567	0.000	0.21	4.03	0.22	0.310
22.745	0.000	0.21	4.03	0.21	0.310
22.922	0.000	0.21	4.03	0.21	0.310
23.100	0.000	0.20	4.03	0.21	0.310
23.278	0.000	0.20	4.03	0.20	0.310
23.455	0.000	0.20	4.03	0.20	0.310
23.632	0.000	0.19	4.02	0.20	0.309
23.810	0.000	0.19	4.02	0.20	0.309
23.987	0.000	0.19	4.02	0.19	0.309
24.165	0.000	0.19	4.02	0.19	0.309
24.343	0.000	0.00	4.00	0.14	0.307
24.520	0.000	0.00	3.98	0.09	0.306
24.698	0.000	0.00	3.96	0.09	0.305
24.875	0.000	0.00	3.95	0.09	0.303
25.052	0.000	0.00	3.93	0.09	0.302
25.230	0.000	0.00	3.91	0.09	0.301
25.407	0.000	0.00	3.89	0.09	0.299
25.585	0.000	0.00	3.88	0.09	0.298
25.762	0.000	0.00	3.86	0.09	0.297
25.940	0.000	0.00	3.84	0.09	0.296
26.117	0.000	0.00	3.83	0.09	0.294
26.295	0.000	0.00	3.81	0.09	0.293

26.472	0.000	0.00	3.79	0.09	0.292
26.650	0.000	0.00	3.78	0.09	0.290
26.827	0.000	0.00	3.76	0.09	0.289
27.005	0.000	0.00	3.74	0.09	0.288
27.182	0.000	0.00	3.72	0.09	0.286
27.360	0.000	0.00	3.71	0.09	0.285
27.537	0.000	0.00	3.69	0.09	0.284
27.715	0.000	0.00	3.67	0.09	0.283
27.892	0.000	0.00	3.66	0.09	0.281
28.070	0.000	0.00	3.64	0.09	0.280
28.247	0.000	0.00	3.62	0.09	0.279
28.425	0.000	0.00	3.61	0.09	0.277
28.602	0.000	0.00	3.59	0.09	0.276
28.780	0.000	0.00	3.57	0.09	0.275
28.957	0.000	0.00	3.55	0.09	0.273
29.135	0.000	0.00	3.54	0.09	0.272
29.312	0.000	0.00	3.52	0.09	0.271
29.490	0.000	0.00	3.50	0.09	0.269
29.667	0.000	0.00	3.49	0.09	0.268
29.845	0.000	0.00	3.47	0.09	0.267
30.022	0.000	0.00	3.45	0.09	0.266
30.200	0.000	0.00	3.44	0.09	0.264
30.377	0.000	0.00	3.42	0.09	0.263
30.555	0.000	0.00	3.40	0.09	0.262
30.732	0.000	0.00	3.39	0.09	0.260
30.910	0.000	0.00	3.37	0.09	0.259
31.087	0.000	0.00	3.35	0.09	0.258
31.265	0.000	0.00	3.33	0.09	0.256
31.442	0.000	0.00	3.32	0.09	0.255
31.620	0.000	0.00	3.30	0.09	0.254
31.797	0.000	0.00	3.28	0.09	0.252
31.975	0.000	0.00	3.27	0.09	0.251
32.152	0.000	0.00	3.25	0.09	0.250
32.330	0.000	0.00	3.23	0.09	0.249
32.507	0.000	0.00	3.22	0.09	0.247
32.685	0.000	0.00	3.20	0.09	0.246
32.862	0.000	0.00	3.18	0.09	0.245

33.040	0.000	0.00	3.16	0.09	0.243
33.218	0.000	0.00	3.15	0.09	0.242
33.395	0.000	0.00	3.13	0.09	0.241
33.573	0.000	0.00	3.11	0.09	0.239
33.750	0.000	0.00	3.10	0.09	0.238
33.928	0.000	0.00	3.08	0.09	0.237
34.105	0.000	0.00	3.06	0.09	0.236
34.283	0.000	0.00	3.05	0.09	0.234
34.460	0.000	0.00	3.03	0.09	0.233
34.638	0.000	0.00	3.01	0.09	0.232
34.815	0.000	0.00	2.99	0.09	0.230
34.993	0.000	0.00	2.98	0.09	0.229
35.170	0.000	0.00	2.96	0.09	0.228
35.348	0.000	0.00	2.94	0.09	0.226
35.525	0.000	0.00	2.93	0.09	0.225
35.703	0.000	0.00	2.91	0.09	0.224
35.880	0.000	0.00	2.89	0.09	0.222
36.058	0.000	0.00	2.88	0.09	0.221
36.235	0.000	0.00	2.86	0.09	0.220
36.413	0.000	0.00	2.84	0.09	0.219
36.590	0.000	0.00	2.82	0.09	0.217
36.768	0.000	0.00	2.81	0.09	0.216
36.945	0.000	0.00	2.79	0.09	0.215
37.123	0.000	0.00	2.77	0.09	0.213
37.300	0.000	0.00	2.76	0.09	0.212
37.478	0.000	0.00	2.74	0.09	0.211
37.655	0.000	0.00	2.72	0.09	0.209
37.833	0.000	0.00	2.71	0.09	0.208
38.010	0.000	0.00	2.69	0.09	0.207
38.188	0.000	0.00	2.67	0.09	0.205
38.365	0.000	0.00	2.65	0.09	0.204
38.543	0.000	0.00	2.64	0.09	0.203
38.720	0.000	0.00	2.62	0.09	0.202
38.898	0.000	0.00	2.60	0.09	0.200
39.075	0.000	0.00	2.59	0.09	0.199
39.253	0.000	0.00	2.57	0.09	0.198
39.430	0.000	0.00	2.55	0.09	0.196

39.608	0.000	0.00	2.53	0.09	0.195
39.785	0.000	0.00	2.52	0.09	0.194
39.963	0.000	0.00	2.50	0.09	0.192
40.140	0.000	0.00	2.48	0.09	0.191
40.318	0.000	0.00	2.47	0.09	0.190
40.495	0.000	0.00	2.45	0.09	0.189
40.673	0.000	0.00	2.43	0.09	0.187
40.850	0.000	0.00	2.42	0.09	0.186
41.028	0.000	0.00	2.40	0.09	0.185
41.205	0.000	0.00	2.38	0.09	0.183
41.383	0.000	0.00	2.36	0.09	0.182
41.560	0.000	0.00	2.35	0.09	0.181
41.738	0.000	0.00	2.33	0.09	0.179
41.915	0.000	0.00	2.31	0.09	0.178
42.093	0.000	0.00	2.30	0.09	0.177
42.270	0.000	0.00	2.28	0.09	0.175
42.448	0.000	0.00	2.26	0.09	0.174
42.625	0.000	0.00	2.25	0.09	0.173
42.803	0.000	0.00	2.23	0.09	0.172
42.980	0.000	0.00	2.21	0.09	0.170
43.158	0.000	0.00	2.19	0.09	0.169
43.335	0.000	0.00	2.18	0.09	0.168
43.513	0.000	0.00	2.16	0.09	0.166
43.690	0.000	0.00	2.14	0.09	0.165
43.868	0.000	0.00	2.13	0.09	0.164
44.045	0.000	0.00	2.11	0.09	0.162
44.223	0.000	0.00	2.09	0.09	0.161
44.400	0.000	0.00	2.08	0.09	0.160
44.578	0.000	0.00	2.06	0.09	0.158
44.755	0.000	0.00	2.04	0.09	0.157
44.933	0.000	0.00	2.02	0.09	0.156
45.110	0.000	0.00	2.01	0.09	0.155
45.288	0.000	0.00	1.99	0.09	0.153
45.465	0.000	0.00	1.97	0.09	0.152
45.643	0.000	0.00	1.96	0.09	0.151
45.820	0.000	0.00	1.94	0.09	0.149
45.998	0.000	0.00	1.92	0.09	0.148

46.175	0.000	0.00	1.91	0.09	0.147
46.353	0.000	0.00	1.89	0.09	0.145
46.530	0.000	0.00	1.87	0.09	0.144
46.708	0.000	0.00	1.85	0.09	0.143
46.885	0.000	0.00	1.84	0.09	0.142
47.063	0.000	0.00	1.82	0.09	0.140
47.240	0.000	0.00	1.80	0.09	0.139
47.418	0.000	0.00	1.79	0.09	0.138
47.595	0.000	0.00	1.77	0.09	0.136
47.773	0.000	0.00	1.75	0.09	0.135
47.950	0.000	0.00	1.74	0.09	0.134
48.128	0.000	0.00	1.72	0.09	0.132
48.305	0.000	0.00	1.70	0.09	0.131
48.483	0.000	0.00	1.69	0.09	0.130
48.660	0.000	0.00	1.67	0.09	0.128
48.838	0.000	0.00	1.65	0.09	0.127
49.015	0.000	0.00	1.63	0.09	0.126
49.193	0.000	0.00	1.62	0.09	0.125
49.370	0.000	0.00	1.60	0.09	0.123
49.548	0.000	0.00	1.58	0.09	0.122
49.725	0.000	0.00	1.57	0.09	0.121
49.903	0.000	0.00	1.55	0.09	0.119
50.080	0.000	0.00	1.53	0.09	0.118
50.258	0.000	0.00	1.52	0.09	0.117
50.435	0.000	0.00	1.50	0.09	0.115
50.613	0.000	0.00	1.48	0.09	0.114
50.790	0.000	0.00	1.47	0.09	0.113
50.968	0.000	0.00	1.45	0.09	0.111
51.145	0.000	0.00	1.43	0.09	0.110
51.323	0.000	0.00	1.41	0.09	0.109
51.500	0.000	0.00	1.40	0.09	0.108
51.678	0.000	0.00	1.38	0.09	0.106
51.855	0.000	0.00	1.36	0.09	0.105
52.033	0.000	0.00	1.35	0.09	0.104
52.210	0.000	0.00	1.33	0.09	0.102
52.388	0.000	0.00	1.31	0.09	0.101
52.565	0.000	0.00	1.30	0.09	0.100

52.743	0.000	0.00	1.28	0.09	0.098
52.920	0.000	0.00	1.26	0.09	0.097
53.098	0.000	0.00	1.25	0.09	0.096
53.275	0.000	0.00	1.23	0.09	0.095
53.453	0.000	0.00	1.21	0.09	0.093
53.630	0.000	0.00	1.19	0.09	0.092
53.808	0.000	0.00	1.18	0.09	0.091
53.985	0.000	0.00	1.16	0.09	0.089
54.163	0.000	0.00	1.14	0.09	0.088
54.340	0.000	0.00	1.13	0.09	0.087
54.518	0.000	0.00	1.11	0.09	0.085
54.695	0.000	0.00	1.09	0.09	0.084
54.873	0.000	0.00	1.08	0.09	0.083
55.050	0.000	0.00	1.06	0.09	0.081
55.228	0.000	0.00	1.04	0.09	0.080
55.405	0.000	0.00	1.03	0.09	0.079
55.583	0.000	0.00	1.01	0.09	0.078
55.760	0.000	0.00	0.99	0.09	0.076
55.938	0.000	0.00	0.97	0.09	0.075
56.115	0.000	0.00	0.96	0.09	0.074
56.293	0.000	0.00	0.94	0.08	0.072
56.470	0.000	0.00	0.93	0.08	0.071
56.648	0.000	0.00	0.91	0.08	0.070
56.825	0.000	0.00	0.90	0.08	0.069
57.003	0.000	0.00	0.88	0.08	0.068
57.180	0.000	0.00	0.87	0.08	0.067
57.358	0.000	0.00	0.85	0.08	0.065
57.535	0.000	0.00	0.84	0.08	0.064
57.713	0.000	0.00	0.82	0.07	0.063
57.890	0.000	0.00	0.81	0.07	0.062
58.068	0.000	0.00	0.79	0.07	0.061
58.245	0.000	0.00	0.78	0.07	0.060
58.423	0.000	0.00	0.77	0.07	0.059
58.600	0.000	0.00	0.76	0.07	0.058
58.778	0.000	0.00	0.74	0.07	0.057
58.955	0.000	0.00	0.73	0.07	0.056
59.133	0.000	0.00	0.72	0.06	0.055

59.310	0.000	0.00	0.71	0.06	0.054
59.488	0.000	0.00	0.69	0.06	0.053
59.665	0.000	0.00	0.68	0.06	0.052
59.843	0.000	0.00	0.67	0.06	0.052
60.020	0.000	0.00	0.66	0.06	0.051
60.198	0.000	0.00	0.65	0.06	0.050
60.375	0.000	0.00	0.64	0.06	0.049
60.553	0.000	0.00	0.63	0.06	0.048
60.730	0.000	0.00	0.62	0.06	0.047
60.908	0.000	0.00	0.61	0.05	0.047
61.085	0.000	0.00	0.60	0.05	0.046
61.263	0.000	0.00	0.59	0.05	0.045
61.440	0.000	0.00	0.58	0.05	0.044
61.618	0.000	0.00	0.57	0.05	0.044
61.795	0.000	0.00	0.56	0.05	0.043
61.973	0.000	0.00	0.55	0.05	0.042
62.150	0.000	0.00	0.54	0.05	0.041
62.328	0.000	0.00	0.53	0.05	0.041
62.505	0.000	0.00	0.52	0.05	0.040
62.683	0.000	0.00	0.51	0.05	0.039
62.860	0.000	0.00	0.50	0.05	0.039
63.038	0.000	0.00	0.49	0.04	0.038
63.215	0.000	0.00	0.49	0.04	0.037
63.393	0.000	0.00	0.48	0.04	0.037
63.570	0.000	0.00	0.47	0.04	0.036
63.748	0.000	0.00	0.46	0.04	0.036
63.925	0.000	0.00	0.45	0.04	0.035
64.103	0.000	0.00	0.45	0.04	0.034
64.280	0.000	0.00	0.44	0.04	0.034
64.458	0.000	0.00	0.43	0.04	0.033
64.635	0.000	0.00	0.42	0.04	0.033
64.813	0.000	0.00	0.42	0.04	0.032
64.990	0.000	0.00	0.41	0.04	0.032
65.168	0.000	0.00	0.40	0.04	0.031
65.345	0.000	0.00	0.40	0.04	0.030
65.523	0.000	0.00	0.39	0.03	0.030
65.700	0.000	0.00	0.38	0.03	0.029

65.878	0.000	0.00	0.38	0.03	0.029
66.055	0.000	0.00	0.37	0.03	0.028
66.233	0.000	0.00	0.36	0.03	0.028
66.410	0.000	0.00	0.36	0.03	0.028
66.588	0.000	0.00	0.35	0.03	0.027
66.765	0.000	0.00	0.35	0.03	0.027
66.943	0.000	0.00	0.34	0.03	0.026
67.120	0.000	0.00	0.33	0.03	0.026
67.298	0.000	0.00	0.33	0.03	0.025
67.475	0.000	0.00	0.32	0.03	0.025
67.653	0.000	0.00	0.32	0.03	0.024
67.830	0.000	0.00	0.31	0.03	0.024
68.008	0.000	0.00	0.31	0.03	0.024
68.185	0.000	0.00	0.30	0.03	0.023
68.363	0.000	0.00	0.30	0.03	0.023
68.540	0.000	0.00	0.29	0.03	0.022
68.718	0.000	0.00	0.29	0.03	0.022
68.895	0.000	0.00	0.28	0.03	0.022
69.073	0.000	0.00	0.28	0.02	0.021
69.250	0.000	0.00	0.27	0.02	0.021
69.428	0.000	0.00	0.27	0.02	0.021
69.605	0.000	0.00	0.26	0.02	0.020
69.783	0.000	0.00	0.26	0.02	0.020
69.960	0.000	0.00	0.25	0.02	0.020
70.138	0.000	0.00	0.25	0.02	0.019
70.315	0.000	0.00	0.25	0.02	0.019
70.493	0.000	0.00	0.24	0.02	0.019
70.670	0.000	0.00	0.24	0.02	0.018
70.848	0.000	0.00	0.23	0.02	0.018
71.025	0.000	0.00	0.23	0.02	0.018
71.203	0.000	0.00	0.23	0.02	0.017
71.380	0.000	0.00	0.22	0.02	0.017
71.558	0.000	0.00	0.22	0.02	0.017
71.735	0.000	0.00	0.22	0.02	0.017
71.913	0.000	0.00	0.21	0.02	0.016
72.090	0.000	0.00	0.21	0.02	0.016
72.268	0.000	0.00	0.20	0.02	0.016

72.445	0.000	0.00	0.20	0.02	0.015
72.623	0.000	0.00	0.20	0.02	0.015
72.800	0.000	0.00	0.19	0.02	0.015
72.978	0.000	0.00	0.19	0.02	0.015
73.155	0.000	0.00	0.19	0.02	0.014
73.333	0.000	0.00	0.18	0.02	0.014
73.510	0.000	0.00	0.18	0.02	0.014
73.688	0.000	0.00	0.18	0.02	0.014
73.865	0.000	0.00	0.18	0.02	0.013
74.043	0.000	0.00	0.17	0.02	0.013
74.220	0.000	0.00	0.17	0.02	0.013
74.398	0.000	0.00	0.17	0.01	0.013
74.575	0.000	0.00	0.16	0.01	0.013
74.753	0.000	0.00	0.16	0.01	0.012
74.930	0.000	0.00	0.16	0.01	0.012
75.108	0.000	0.00	0.16	0.01	0.012
75.285	0.000	0.00	0.15	0.01	0.012
75.463	0.000	0.00	0.15	0.01	0.012
75.640	0.000	0.00	0.15	0.01	0.011
75.818	0.000	0.00	0.15	0.01	0.011
75.995	0.000	0.00	0.14	0.01	0.011
76.173	0.000	0.00	0.14	0.01	0.011
76.350	0.000	0.00	0.14	0.01	0.011
76.528	0.000	0.00	0.14	0.01	0.010
76.705	0.000	0.00	0.13	0.01	0.010
76.883	0.000	0.00	0.13	0.01	0.010
77.060	0.000	0.00	0.13	0.01	0.010
77.238	0.000	0.00	0.13	0.01	0.010
77.415	0.000	0.00	0.12	0.01	0.010
77.593	0.000	0.00	0.12	0.01	0.009
77.770	0.000	0.00	0.12	0.01	0.009
77.948	0.000	0.00	0.12	0.01	0.009
78.125	0.000	0.00	0.12	0.01	0.009
78.303	0.000	0.00	0.11	0.01	0.009
78.480	0.000	0.00	0.11	0.01	0.009
78.658	0.000	0.00	0.11	0.01	0.009
78.835	0.000	0.00	0.11	0.01	0.008

79.013	0.000	0.00	0.11	0.01	0.008
79.190	0.000	0.00	0.11	0.01	0.008
79.368	0.000	0.00	0.10	0.01	0.008
79.545	0.000	0.00	0.10	0.01	0.008
79.723	0.000	0.00	0.10	0.01	0.008
79.900	0.000	0.00	0.10	0.01	0.008
80.078	0.000	0.00	0.10	0.01	0.007
80.255	0.000	0.00	0.10	0.01	0.007
80.433	0.000	0.00	0.09	0.01	0.007
80.610	0.000	0.00	0.09	0.01	0.007
80.788	0.000	0.00	0.09	0.01	0.007
80.965	0.000	0.00	0.09	0.01	0.007
81.143	0.000	0.00	0.09	0.01	0.007
81.320	0.000	0.00	0.09	0.01	0.007
81.498	0.000	0.00	0.08	0.01	0.007
81.675	0.000	0.00	0.08	0.01	0.006
81.853	0.000	0.00	0.08	0.01	0.006
82.030	0.000	0.00	0.08	0.01	0.006
82.208	0.000	0.00	0.08	0.01	0.006
82.385	0.000	0.00	0.08	0.01	0.006
82.563	0.000	0.00	0.08	0.01	0.006
82.740	0.000	0.00	0.08	0.01	0.006
82.918	0.000	0.00	0.07	0.01	0.006
83.095	0.000	0.00	0.07	0.01	0.006
83.273	0.000	0.00	0.07	0.01	0.005
83.450	0.000	0.00	0.07	0.01	0.005
83.628	0.000	0.00	0.07	0.01	0.005
83.805	0.000	0.00	0.07	0.01	0.005
83.983	0.000	0.00	0.07	0.01	0.005
84.160	0.000	0.00	0.07	0.01	0.005
84.338	0.000	0.00	0.06	0.01	0.005
84.515	0.000	0.00	0.06	0.01	0.005
84.693	0.000	0.00	0.06	0.01	0.005
84.870	0.000	0.00	0.06	0.01	0.005
85.048	0.000	0.00	0.06	0.01	0.005
85.225	0.000	0.00	0.06	0.01	0.005
85.403	0.000	0.00	0.06	0.01	0.004

85.580	0.000	0.00	0.06	0.01	0.004
85.758	0.000	0.00	0.06	0.01	0.004
85.935	0.000	0.00	0.06	0.00	0.004
86.113	0.000	0.00	0.05	0.00	0.004
86.290	0.000	0.00	0.05	0.00	0.004
86.468	0.000	0.00	0.05	0.00	0.004
86.645	0.000	0.00	0.05	0.00	0.004
86.823	0.000	0.00	0.05	0.00	0.004
87.000	0.000	0.00	0.05	0.00	0.004
87.178	0.000	0.00	0.05	0.00	0.004
87.355	0.000	0.00	0.05	0.00	0.004
87.533	0.000	0.00	0.05	0.00	0.004
87.710	0.000	0.00	0.05	0.00	0.004
87.888	0.000	0.00	0.05	0.00	0.004
88.065	0.000	0.00	0.05	0.00	0.003
88.243	0.000	0.00	0.04	0.00	0.003
88.420	0.000	0.00	0.04	0.00	0.003
88.597	0.000	0.00	0.04	0.00	0.003
88.775	0.000	0.00	0.04	0.00	0.003
88.952	0.000	0.00	0.04	0.00	0.003
89.130	0.000	0.00	0.04	0.00	0.003
89.307	0.000	0.00	0.04	0.00	0.003
89.485	0.000	0.00	0.04	0.00	0.003
89.662	0.000	0.00	0.04	0.00	0.003
89.840	0.000	0.00	0.04	0.00	0.003
90.017	0.000	0.00	0.04	0.00	0.003
90.195	0.000	0.00	0.04	0.00	0.003
90.372	0.000	0.00	0.04	0.00	0.003
90.550	0.000	0.00	0.04	0.00	0.003
90.727	0.000	0.00	0.03	0.00	0.003
90.905	0.000	0.00	0.03	0.00	0.003
91.082	0.000	0.00	0.03	0.00	0.003
91.260	0.000	0.00	0.03	0.00	0.003
91.437	0.000	0.00	0.03	0.00	0.003
91.615	0.000	0.00	0.03	0.00	0.002
91.792	0.000	0.00	0.03	0.00	0.002
91.970	0.000	0.00	0.03	0.00	0.002

92.147	0.000	0.00	0.03	0.00	0.002
92.325	0.000	0.00	0.03	0.00	0.002
92.502	0.000	0.00	0.03	0.00	0.002
92.680	0.000	0.00	0.03	0.00	0.002
92.857	0.000	0.00	0.03	0.00	0.002
93.035	0.000	0.00	0.03	0.00	0.002
93.212	0.000	0.00	0.03	0.00	0.002
93.390	0.000	0.00	0.03	0.00	0.002
93.567	0.000	0.00	0.03	0.00	0.002
93.745	0.000	0.00	0.03	0.00	0.002
93.922	0.000	0.00	0.03	0.00	0.002
94.100	0.000	0.00	0.03	0.00	0.002
94.277	0.000	0.00	0.02	0.00	0.002
94.455	0.000	0.00	0.02	0.00	0.002
94.632	0.000	0.00	0.02	0.00	0.002
94.810	0.000	0.00	0.02	0.00	0.002
94.987	0.000	0.00	0.02	0.00	0.002
95.165	0.000	0.00	0.02	0.00	0.002
95.342	0.000	0.00	0.02	0.00	0.002
95.520	0.000	0.00	0.02	0.00	0.002
95.697	0.000	0.00	0.02	0.00	0.002
95.875	0.000	0.00	0.02	0.00	0.002
96.052	0.000	0.00	0.02	0.00	0.002
96.230	0.000	0.00	0.02	0.00	0.002
96.407	0.000	0.00	0.02	0.00	0.002
96.585	0.000	0.00	0.02	0.00	0.002
96.762	0.000	0.00	0.02	0.00	0.002
96.940	0.000	0.00	0.02	0.00	0.001
97.117	0.000	0.00	0.02	0.00	0.001
97.295	0.000	0.00	0.02	0.00	0.001
97.472	0.000	0.00	0.02	0.00	0.001
97.650	0.000	0.00	0.02	0.00	0.001
97.827	0.000	0.00	0.02	0.00	0.001
98.005	0.000	0.00	0.02	0.00	0.001
98.182	0.000	0.00	0.02	0.00	0.001
98.360	0.000	0.00	0.02	0.00	0.001
98.537	0.000	0.00	0.02	0.00	0.001

98.715	0.000	0.00	0.02	0.00	0.001
98.892	0.000	0.00	0.02	0.00	0.001
99.070	0.000	0.00	0.02	0.00	0.001
99.247	0.000	0.00	0.02	0.00	0.001
99.425	0.000	0.00	0.02	0.00	0.001
99.602	0.000	0.00	0.01	0.00	0.001
99.780	0.000	0.00	0.01	0.00	0.001
99.957	0.000	0.00	0.01	0.00	0.001
100.135	0.000	0.00	0.01	0.00	0.001
100.312	0.000	0.00	0.01	0.00	0.001
100.490	0.000	0.00	0.01	0.00	0.001
100.667	0.000	0.00	0.01	0.00	0.001
100.845	0.000	0.00	0.01	0.00	0.001
101.022	0.000	0.00	0.01	0.00	0.001

```
**************************************************************************
                    SMALL AREA UNIT HYDROGRAPH MODEL
==========================================================================
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                          Analysis prepared by:

                              Huitt-Zollars, Inc.
                        2603 Main Street, Irvine CA. 92614
                                  Suite 400
                                949-988-5815

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--------------------------------------------------------------------------

 Problem Descriptions:
  Rialto Apartments
  Flood Routing 10 year event DA2
  Ryan Kim HC 08/25/21
--------------------------------------------------------------------------


    RATIONAL METHOD CALIBRATION COEFFICIENT = 0.90
    TOTAL CATCHMENT AREA(ACRES) =    4.26
    SOIL-LOSS RATE, Fm,(INCH/HR) =  0.176
    LOW LOSS FRACTION = 0.235
    TIME OF CONCENTRATION(MIN.) = 11.03
    SMALL AREA PEAK Q COMPUTED USING PEAK FLOW RATE FORMULA
    USER SPECIFIED RAINFALL VALUES ARE USED
    RETURN FREQUENCY(YEARS) =  10
       5-MINUTE POINT RAINFALL VALUE(INCHES) =  0.25
      30-MINUTE POINT RAINFALL VALUE(INCHES) =  0.65
       1-HOUR   POINT RAINFALL VALUE(INCHES) =  0.94
       3-HOUR   POINT RAINFALL VALUE(INCHES) =  1.65
       6-HOUR   POINT RAINFALL VALUE(INCHES) =  2.32
```

24-HOUR POINT RAINFALL VALUE(INCHES) = 4.25

TOTAL CATCHMENT RUNOFF VOLUME(ACRE-FEET) = 1.05
TOTAL CATCHMENT SOIL-LOSS VOLUME(ACRE-FEET) = 0.46

****

TIME (HOURS)	VOLUME (AF)	Q (CFS)	0.	2.5	5.0	7.5	10.0
0.01	0.0000	0.00	Q	.	.	.	.
0.19	0.0017	0.23	Q	.	.	.	.
0.37	0.0052	0.23	Q	.	.	.	.
0.56	0.0087	0.23	Q	.	.	.	.
0.74	0.0122	0.23	Q	.	.	.	.
0.93	0.0157	0.23	Q	.	.	.	.
1.11	0.0193	0.24	Q	.	.	.	.
1.29	0.0228	0.24	Q	.	.	.	.
1.48	0.0265	0.24	Q	.	.	.	.
1.66	0.0301	0.24	Q	.	.	.	.
1.84	0.0337	0.24	Q	.	.	.	.
2.03	0.0374	0.24	Q	.	.	.	.
2.21	0.0411	0.25	Q	.	.	.	.
2.40	0.0449	0.25	Q	.	.	.	.
2.58	0.0486	0.25	Q	.	.	.	.
2.76	0.0524	0.25	.Q	.	.	.	.
2.95	0.0563	0.25	.Q	.	.	.	.
3.13	0.0601	0.25	.Q	.	.	.	.
3.32	0.0640	0.26	.Q	.	.	.	.
3.50	0.0679	0.26	.Q	.	.	.	.
3.68	0.0719	0.26	.Q	.	.	.	.
3.87	0.0758	0.26	.Q	.	.	.	.
4.05	0.0799	0.27	.Q	.	.	.	.
4.23	0.0839	0.27	.Q	.	.	.	.
4.42	0.0880	0.27	.Q	.	.	.	.
4.60	0.0921	0.27	.Q	.	.	.	.

4.79	0.0963	0.28	.Q	.	.	.	.
4.97	0.1005	0.28	.Q	.	.	.	.
5.15	0.1047	0.28	.Q	.	.	.	.
5.34	0.1090	0.28	.Q	.	.	.	.
5.52	0.1133	0.29	.Q	.	.	.	.
5.71	0.1177	0.29	.Q	.	.	.	.
5.89	0.1221	0.29	.Q	.	.	.	.
6.07	0.1265	0.29	.Q	.	.	.	.
6.26	0.1310	0.30	.Q	.	.	.	.
6.44	0.1355	0.30	.Q	.	.	.	.
6.62	0.1401	0.30	.Q	.	.	.	.
6.81	0.1448	0.31	.Q	.	.	.	.
6.99	0.1495	0.31	.Q	.	.	.	.
7.18	0.1542	0.31	.Q	.	.	.	.
7.36	0.1590	0.32	.Q	.	.	.	.
7.54	0.1639	0.32	.Q	.	.	.	.
7.73	0.1688	0.33	.Q	.	.	.	.
7.91	0.1738	0.33	.Q	.	.	.	.
8.10	0.1788	0.33	.Q	.	.	.	.
8.28	0.1839	0.34	.Q	.	.	.	.
8.46	0.1891	0.34	.Q	.	.	.	.
8.65	0.1943	0.35	.Q	.	.	.	.
8.83	0.1996	0.35	.Q	.	.	.	.
9.01	0.2050	0.36	.Q	.	.	.	.
9.20	0.2105	0.36	.Q	.	.	.	.
9.38	0.2160	0.37	.Q	.	.	.	.
9.57	0.2217	0.37	.Q	.	.	.	.
9.75	0.2274	0.38	.Q	.	.	.	.
9.93	0.2332	0.39	.Q	.	.	.	.
10.12	0.2391	0.39	.Q	.	.	.	.
10.30	0.2452	0.40	.Q	.	.	.	.
10.49	0.2513	0.41	.Q	.	.	.	.
10.67	0.2575	0.42	.Q	.	.	.	.
10.85	0.2639	0.42	.Q	.	.	.	.
11.04	0.2704	0.43	.Q	.	.	.	.
11.22	0.2770	0.44	.Q	.	.	.	.
11.40	0.2837	0.45	.Q	.	.	.	.

11.59	0.2907	0.46	.Q . . . .
11.77	0.2977	0.47	.Q . . . .
11.96	0.3050	0.48	.Q . . . .
12.14	0.3127	0.54	. Q . . . .
12.32	0.3211	0.57	. Q . . . .
12.51	0.3298	0.59	. Q . . . .
12.69	0.3388	0.60	. Q . . . .
12.87	0.3481	0.62	. Q . . . .
13.06	0.3576	0.63	. Q . . . .
13.24	0.3674	0.66	. Q . . . .
13.43	0.3775	0.67	. Q . . . .
13.61	0.3880	0.71	. Q . . . .
13.79	0.3989	0.72	. Q . . . .
13.98	0.4102	0.77	. Q . . . .
14.16	0.4221	0.80	. Q . . . .
14.35	0.4349	0.88	. Q . . . .
14.53	0.4486	0.91	. Q . . . .
14.71	0.4630	0.99	. Q . . . .
14.90	0.4783	1.03	. Q . . . .
15.08	0.4949	1.14	. Q . . . .
15.26	0.5128	1.21	. Q . . . .
15.45	0.5328	1.42	. Q . . . .
15.63	0.5556	1.58	. Q . . . .
15.82	0.5834	2.09	. Q . . . .
16.00	0.6209	2.84	. .Q . . .
16.18	0.6983	7.35	. . . Q. .
16.37	0.7676	1.78	. Q . . . .
16.55	0.7910	1.30	. Q . . . .
16.74	0.8091	1.08	. Q . . . .
16.92	0.8246	0.95	. Q . . . .
17.10	0.8383	0.86	. Q . . . .
17.29	0.8504	0.74	. Q . . . .
17.47	0.8613	0.69	. Q . . . .
17.65	0.8715	0.65	. Q . . . .
17.84	0.8810	0.61	. Q . . . .
18.02	0.8900	0.58	. Q . . . .
18.21	0.8981	0.49	.Q . . . .

18.39	0.9053	0.47	.Q	.	.	.	.
18.57	0.9122	0.44	.Q	.	.	.	.
18.76	0.9188	0.43	.Q	.	.	.	.
18.94	0.9252	0.41	.Q	.	.	.	.
19.13	0.9313	0.40	.Q	.	.	.	.
19.31	0.9373	0.38	.Q	.	.	.	.
19.49	0.9430	0.37	.Q	.	.	.	.
19.68	0.9485	0.36	.Q	.	.	.	.
19.86	0.9539	0.35	.Q	.	.	.	.
20.04	0.9592	0.34	.Q	.	.	.	.
20.23	0.9643	0.33	.Q	.	.	.	.
20.41	0.9693	0.32	.Q	.	.	.	.
20.60	0.9741	0.32	.Q	.	.	.	.
20.78	0.9789	0.31	.Q	.	.	.	.
20.96	0.9835	0.30	.Q	.	.	.	.
21.15	0.9880	0.30	.Q	.	.	.	.
21.33	0.9925	0.29	.Q	.	.	.	.
21.52	0.9968	0.28	.Q	.	.	.	.
21.70	1.0011	0.28	.Q	.	.	.	.
21.88	1.0053	0.27	.Q	.	.	.	.
22.07	1.0094	0.27	.Q	.	.	.	.
22.25	1.0135	0.26	.Q	.	.	.	.
22.43	1.0175	0.26	.Q	.	.	.	.
22.62	1.0214	0.26	.Q	.	.	.	.
22.80	1.0252	0.25	.Q	.	.	.	.
22.99	1.0290	0.25	Q	.	.	.	.
23.17	1.0328	0.24	Q	.	.	.	.
23.35	1.0365	0.24	Q	.	.	.	.
23.54	1.0401	0.24	Q	.	.	.	.
23.72	1.0437	0.23	Q	.	.	.	.
23.90	1.0472	0.23	Q	.	.	.	.
24.09	1.0507	0.23	Q	.	.	.	.
24.27	1.0524	0.00	Q	.	.	.	.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have

an instantaneous time duration)

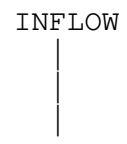
Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1444.9
10%	209.6
20%	55.1
30%	22.1
40%	11.0
50%	11.0
60%	11.0
70%	11.0
80%	11.0
90%	11.0

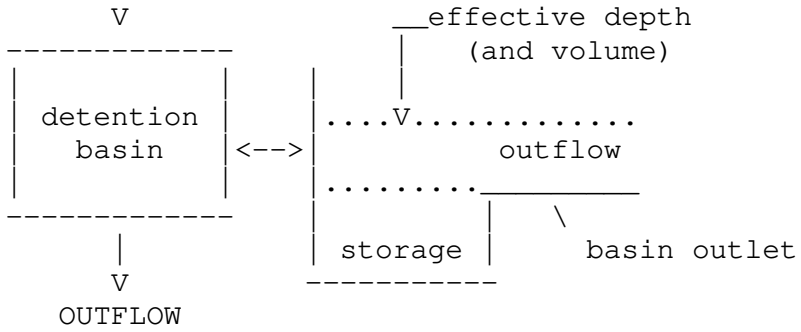
Problem Descriptions:
Rialto Apartments
Flood Routing 10 year event DA2
Ryan Kim HC 08/25/21

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FLOW-THROUGH DETENTION BASIN MODEL

SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
CONSTANT HYDROGRAPH TIME UNIT(MINUTES) = 11.030
DEAD STORAGE(AF) = 0.00
SPECIFIED DEAD STORAGE(AF) FILLED = 0.00
ASSUMED INITIAL DEPTH(FEET) IN STORAGE BASIN = 0.00





DEPTH-VS.-STORAGE AND DEPTH-VS.-DISCHARGE INFORMATION:
TOTAL NUMBER OF BASIN DEPTH INFORMATION ENTRIES = 7

*BASIN-DEPTH (FEET)	STORAGE (ACRE-FEET)	OUTFLOW (CFS) **	**BASIN-DEPTH (FEET)	STORAGE (ACRE-FEET)	OUTFLOW (CFS) *
0.000	0.000	0.000**	1.000	0.093	0.108*
2.000	0.186	0.108**	3.000	0.279	0.108*
4.000	0.372	0.108**	5.000	0.465	4.504*
5.500	0.511	7.722**			

BASIN STORAGE, OUTFLOW AND DEPTH ROUTING VALUES:

INTERVAL NUMBER	DEPTH (FEET)	{S-O*DT/2} (ACRE-FEET)	{S+O*DT/2} (ACRE-FEET)
1	0.00	0.00000	0.00000
2	1.00	0.09218	0.09382
3	2.00	0.18518	0.18682
4	3.00	0.27818	0.27982
5	4.00	0.37118	0.37282
6	5.00	0.43079	0.49921
7	5.50	0.45234	0.56966

WHERE S=STORAGE(AF);O=OUTFLOW(AF/MIN.);DT=UNIT INTERVAL(MIN.)

DETENTION BASIN ROUTING RESULTS:
NOTE: COMPUTED BASIN DEPTH, OUTFLOW, AND STORAGE QUANTITIES
OCCUR AT THE GIVEN TIME. BASIN INFLOW VALUES REPRESENT THE
AVERAGE INFLOW DURING THE RECENT HYDROGRAPH UNIT INTERVAL.

TIME (HRS)	DEAD-STORAGE FILLED(AF)	INFLOW (CFS)	EFFECTIVE DEPTH(FT)	OUTFLOW (CFS)	EFFECTIVE VOLUME(AF)
0.007	0.000	0.00	0.00	0.00	0.000
0.190	0.000	0.23	0.04	0.00	0.003
0.374	0.000	0.23	0.07	0.01	0.007
0.558	0.000	0.23	0.11	0.01	0.010
0.742	0.000	0.23	0.14	0.01	0.013
0.926	0.000	0.23	0.18	0.02	0.017
1.110	0.000	0.24	0.21	0.02	0.020
1.293	0.000	0.24	0.25	0.03	0.023
1.477	0.000	0.24	0.28	0.03	0.026
1.661	0.000	0.24	0.32	0.03	0.030
1.845	0.000	0.24	0.35	0.04	0.033
2.029	0.000	0.24	0.38	0.04	0.036
2.213	0.000	0.25	0.42	0.04	0.039
2.396	0.000	0.25	0.45	0.05	0.042
2.580	0.000	0.25	0.48	0.05	0.045
2.764	0.000	0.25	0.51	0.05	0.048
2.948	0.000	0.25	0.55	0.06	0.051
3.132	0.000	0.25	0.58	0.06	0.054
3.316	0.000	0.26	0.61	0.06	0.057
3.499	0.000	0.26	0.64	0.07	0.060
3.683	0.000	0.26	0.67	0.07	0.062
3.867	0.000	0.26	0.70	0.07	0.065
4.051	0.000	0.27	0.73	0.08	0.068
4.235	0.000	0.27	0.76	0.08	0.071
4.419	0.000	0.27	0.79	0.08	0.074
4.602	0.000	0.27	0.82	0.09	0.077
4.786	0.000	0.28	0.85	0.09	0.079
4.970	0.000	0.28	0.88	0.09	0.082
5.154	0.000	0.28	0.91	0.10	0.085
5.338	0.000	0.28	0.94	0.10	0.088
5.522	0.000	0.29	0.97	0.10	0.091
5.705	0.000	0.29	1.00	0.11	0.093
5.889	0.000	0.29	1.03	0.11	0.096

6.073	0.000	0.29	1.06	0.11	0.099
6.257	0.000	0.30	1.10	0.11	0.102
6.441	0.000	0.30	1.13	0.11	0.105
6.624	0.000	0.30	1.16	0.11	0.108
6.808	0.000	0.31	1.19	0.11	0.111
6.992	0.000	0.31	1.22	0.11	0.114
7.176	0.000	0.31	1.26	0.11	0.117
7.360	0.000	0.32	1.29	0.11	0.120
7.544	0.000	0.32	1.33	0.11	0.123
7.728	0.000	0.33	1.36	0.11	0.127
7.911	0.000	0.33	1.40	0.11	0.130
8.095	0.000	0.33	1.44	0.11	0.134
8.279	0.000	0.34	1.47	0.11	0.137
8.463	0.000	0.34	1.51	0.11	0.141
8.647	0.000	0.35	1.55	0.11	0.144
8.831	0.000	0.35	1.59	0.11	0.148
9.014	0.000	0.36	1.63	0.11	0.152
9.198	0.000	0.36	1.67	0.11	0.156
9.382	0.000	0.37	1.72	0.11	0.160
9.566	0.000	0.37	1.76	0.11	0.164
9.750	0.000	0.38	1.80	0.11	0.168
9.934	0.000	0.39	1.85	0.11	0.172
10.117	0.000	0.39	1.90	0.11	0.176
10.301	0.000	0.40	1.94	0.11	0.181
10.485	0.000	0.41	1.99	0.11	0.185
10.669	0.000	0.42	2.04	0.11	0.190
10.853	0.000	0.42	2.09	0.11	0.195
11.036	0.000	0.43	2.15	0.11	0.200
11.220	0.000	0.44	2.20	0.11	0.205
11.404	0.000	0.45	2.26	0.11	0.210
11.588	0.000	0.46	2.31	0.11	0.215
11.772	0.000	0.47	2.37	0.11	0.221
11.956	0.000	0.48	2.43	0.11	0.226
12.139	0.000	0.54	2.50	0.11	0.233
12.323	0.000	0.57	2.58	0.11	0.240
12.507	0.000	0.59	2.66	0.11	0.247
12.691	0.000	0.60	2.74	0.11	0.255

12.875	0.000	0.62	2.82	0.11	0.262
13.059	0.000	0.63	2.91	0.11	0.270
13.242	0.000	0.66	3.00	0.11	0.279
13.426	0.000	0.67	3.09	0.11	0.287
13.610	0.000	0.71	3.19	0.11	0.296
13.794	0.000	0.72	3.29	0.11	0.306
13.978	0.000	0.77	3.39	0.11	0.316
14.162	0.000	0.80	3.51	0.11	0.326
14.345	0.000	0.88	3.63	0.11	0.338
14.529	0.000	0.91	3.77	0.11	0.350
14.713	0.000	0.99	3.91	0.11	0.364
14.897	0.000	1.03	4.04	0.21	0.376
15.081	0.000	1.14	4.15	0.53	0.386
15.265	0.000	1.21	4.20	0.87	0.391
15.448	0.000	1.42	4.25	1.11	0.396
15.632	0.000	1.58	4.30	1.31	0.400
15.816	0.000	2.09	4.38	1.59	0.407
16.000	0.000	2.84	4.51	2.05	0.419
16.184	0.000	7.35	5.10	3.73	0.474
16.368	0.000	1.78	4.71	4.17	0.438
16.552	0.000	1.30	4.48	2.71	0.416
16.735	0.000	1.08	4.34	1.91	0.404
16.919	0.000	0.95	4.26	1.44	0.396
17.103	0.000	0.86	4.21	1.15	0.392
17.287	0.000	0.74	4.18	0.97	0.388
17.471	0.000	0.69	4.15	0.83	0.386
17.655	0.000	0.65	4.14	0.75	0.385
17.838	0.000	0.61	4.12	0.68	0.384
18.022	0.000	0.58	4.12	0.64	0.383
18.206	0.000	0.49	4.10	0.58	0.381
18.390	0.000	0.47	4.09	0.53	0.380
18.574	0.000	0.44	4.08	0.49	0.380
18.757	0.000	0.43	4.08	0.46	0.379
18.941	0.000	0.41	4.07	0.44	0.379
19.125	0.000	0.40	4.07	0.42	0.378
19.309	0.000	0.38	4.07	0.40	0.378
19.493	0.000	0.37	4.06	0.39	0.378

19.677	0.000	0.36	4.06	0.38	0.378
19.861	0.000	0.35	4.06	0.37	0.377
20.044	0.000	0.34	4.05	0.35	0.377
20.228	0.000	0.33	4.05	0.34	0.377
20.412	0.000	0.32	4.05	0.34	0.377
20.596	0.000	0.32	4.05	0.33	0.377
20.780	0.000	0.31	4.05	0.32	0.376
20.963	0.000	0.30	4.05	0.31	0.376
21.147	0.000	0.30	4.04	0.31	0.376
21.331	0.000	0.29	4.04	0.30	0.376
21.515	0.000	0.28	4.04	0.29	0.376
21.699	0.000	0.28	4.04	0.29	0.376
21.883	0.000	0.27	4.04	0.28	0.376
22.066	0.000	0.27	4.04	0.28	0.375
22.250	0.000	0.26	4.04	0.27	0.375
22.434	0.000	0.26	4.04	0.27	0.375
22.618	0.000	0.26	4.03	0.26	0.375
22.802	0.000	0.25	4.03	0.26	0.375
22.986	0.000	0.25	4.03	0.25	0.375
23.170	0.000	0.24	4.03	0.25	0.375
23.353	0.000	0.24	4.03	0.25	0.375
23.537	0.000	0.24	4.03	0.24	0.375
23.721	0.000	0.23	4.03	0.24	0.375
23.905	0.000	0.23	4.03	0.24	0.375
24.089	0.000	0.23	4.03	0.23	0.375
24.272	0.000	0.00	4.00	0.17	0.372
24.456	0.000	0.00	3.98	0.11	0.370
24.640	0.000	0.00	3.96	0.11	0.369
24.824	0.000	0.00	3.95	0.11	0.367
25.008	0.000	0.00	3.93	0.11	0.365
25.192	0.000	0.00	3.91	0.11	0.364
25.376	0.000	0.00	3.89	0.11	0.362
25.559	0.000	0.00	3.88	0.11	0.361
25.743	0.000	0.00	3.86	0.11	0.359
25.927	0.000	0.00	3.84	0.11	0.357
26.111	0.000	0.00	3.82	0.11	0.356
26.295	0.000	0.00	3.81	0.11	0.354

26.479	0.000	0.00	3.79	0.11	0.352
26.662	0.000	0.00	3.77	0.11	0.351
26.846	0.000	0.00	3.75	0.11	0.349
27.030	0.000	0.00	3.74	0.11	0.347
27.214	0.000	0.00	3.72	0.11	0.346
27.398	0.000	0.00	3.70	0.11	0.344
27.582	0.000	0.00	3.68	0.11	0.342
27.765	0.000	0.00	3.66	0.11	0.341
27.949	0.000	0.00	3.65	0.11	0.339
28.133	0.000	0.00	3.63	0.11	0.338
28.317	0.000	0.00	3.61	0.11	0.336
28.501	0.000	0.00	3.59	0.11	0.334
28.685	0.000	0.00	3.58	0.11	0.333
28.868	0.000	0.00	3.56	0.11	0.331
29.052	0.000	0.00	3.54	0.11	0.329
29.236	0.000	0.00	3.52	0.11	0.328
29.420	0.000	0.00	3.51	0.11	0.326
29.604	0.000	0.00	3.49	0.11	0.324
29.788	0.000	0.00	3.47	0.11	0.323
29.971	0.000	0.00	3.45	0.11	0.321
30.155	0.000	0.00	3.44	0.11	0.320
30.339	0.000	0.00	3.42	0.11	0.318
30.523	0.000	0.00	3.40	0.11	0.316
30.707	0.000	0.00	3.38	0.11	0.315
30.891	0.000	0.00	3.36	0.11	0.313
31.074	0.000	0.00	3.35	0.11	0.311
31.258	0.000	0.00	3.33	0.11	0.310
31.442	0.000	0.00	3.31	0.11	0.308
31.626	0.000	0.00	3.29	0.11	0.306
31.810	0.000	0.00	3.28	0.11	0.305
31.994	0.000	0.00	3.26	0.11	0.303
32.177	0.000	0.00	3.24	0.11	0.301
32.361	0.000	0.00	3.22	0.11	0.300
32.545	0.000	0.00	3.21	0.11	0.298
32.729	0.000	0.00	3.19	0.11	0.297
32.913	0.000	0.00	3.17	0.11	0.295
33.097	0.000	0.00	3.15	0.11	0.293

33.280	0.000	0.00	3.14	0.11	0.292
33.464	0.000	0.00	3.12	0.11	0.290
33.648	0.000	0.00	3.10	0.11	0.288
33.832	0.000	0.00	3.08	0.11	0.287
34.016	0.000	0.00	3.07	0.11	0.285
34.200	0.000	0.00	3.05	0.11	0.283
34.383	0.000	0.00	3.03	0.11	0.282
34.567	0.000	0.00	3.01	0.11	0.280
34.751	0.000	0.00	2.99	0.11	0.278
34.935	0.000	0.00	2.98	0.11	0.277
35.119	0.000	0.00	2.96	0.11	0.275
35.303	0.000	0.00	2.94	0.11	0.274
35.486	0.000	0.00	2.92	0.11	0.272
35.670	0.000	0.00	2.91	0.11	0.270
35.854	0.000	0.00	2.89	0.11	0.269
36.038	0.000	0.00	2.87	0.11	0.267
36.222	0.000	0.00	2.85	0.11	0.265
36.406	0.000	0.00	2.84	0.11	0.264
36.589	0.000	0.00	2.82	0.11	0.262
36.773	0.000	0.00	2.80	0.11	0.260
36.957	0.000	0.00	2.78	0.11	0.259
37.141	0.000	0.00	2.77	0.11	0.257
37.325	0.000	0.00	2.75	0.11	0.256
37.509	0.000	0.00	2.73	0.11	0.254
37.692	0.000	0.00	2.71	0.11	0.252
37.876	0.000	0.00	2.69	0.11	0.251
38.060	0.000	0.00	2.68	0.11	0.249
38.244	0.000	0.00	2.66	0.11	0.247
38.428	0.000	0.00	2.64	0.11	0.246
38.612	0.000	0.00	2.62	0.11	0.244
38.795	0.000	0.00	2.61	0.11	0.242
38.979	0.000	0.00	2.59	0.11	0.241
39.163	0.000	0.00	2.57	0.11	0.239
39.347	0.000	0.00	2.55	0.11	0.237
39.531	0.000	0.00	2.54	0.11	0.236
39.715	0.000	0.00	2.52	0.11	0.234
39.898	0.000	0.00	2.50	0.11	0.233

40.082	0.000	0.00	2.48	0.11	0.231
40.266	0.000	0.00	2.47	0.11	0.229
40.450	0.000	0.00	2.45	0.11	0.228
40.634	0.000	0.00	2.43	0.11	0.226
40.818	0.000	0.00	2.41	0.11	0.224
41.001	0.000	0.00	2.39	0.11	0.223
41.185	0.000	0.00	2.38	0.11	0.221
41.369	0.000	0.00	2.36	0.11	0.219
41.553	0.000	0.00	2.34	0.11	0.218
41.737	0.000	0.00	2.32	0.11	0.216
41.921	0.000	0.00	2.31	0.11	0.214
42.104	0.000	0.00	2.29	0.11	0.213
42.288	0.000	0.00	2.27	0.11	0.211
42.472	0.000	0.00	2.25	0.11	0.210
42.656	0.000	0.00	2.24	0.11	0.208
42.840	0.000	0.00	2.22	0.11	0.206
43.024	0.000	0.00	2.20	0.11	0.205
43.207	0.000	0.00	2.18	0.11	0.203
43.391	0.000	0.00	2.17	0.11	0.201
43.575	0.000	0.00	2.15	0.11	0.200
43.759	0.000	0.00	2.13	0.11	0.198
43.943	0.000	0.00	2.11	0.11	0.196
44.127	0.000	0.00	2.09	0.11	0.195
44.310	0.000	0.00	2.08	0.11	0.193
44.494	0.000	0.00	2.06	0.11	0.192
44.678	0.000	0.00	2.04	0.11	0.190
44.862	0.000	0.00	2.02	0.11	0.188
45.046	0.000	0.00	2.01	0.11	0.187
45.230	0.000	0.00	1.99	0.11	0.185
45.413	0.000	0.00	1.97	0.11	0.183
45.597	0.000	0.00	1.95	0.11	0.182
45.781	0.000	0.00	1.94	0.11	0.180
45.965	0.000	0.00	1.92	0.11	0.178
46.149	0.000	0.00	1.90	0.11	0.177
46.333	0.000	0.00	1.88	0.11	0.175
46.516	0.000	0.00	1.87	0.11	0.173
46.700	0.000	0.00	1.85	0.11	0.172

46.884	0.000	0.00	1.83	0.11	0.170
47.068	0.000	0.00	1.81	0.11	0.169
47.252	0.000	0.00	1.79	0.11	0.167
47.436	0.000	0.00	1.78	0.11	0.165
47.619	0.000	0.00	1.76	0.11	0.164
47.803	0.000	0.00	1.74	0.11	0.162
47.987	0.000	0.00	1.72	0.11	0.160
48.171	0.000	0.00	1.71	0.11	0.159
48.355	0.000	0.00	1.69	0.11	0.157
48.539	0.000	0.00	1.67	0.11	0.155
48.722	0.000	0.00	1.65	0.11	0.154
48.906	0.000	0.00	1.64	0.11	0.152
49.090	0.000	0.00	1.62	0.11	0.150
49.274	0.000	0.00	1.60	0.11	0.149
49.458	0.000	0.00	1.58	0.11	0.147
49.642	0.000	0.00	1.57	0.11	0.146
49.825	0.000	0.00	1.55	0.11	0.144
50.009	0.000	0.00	1.53	0.11	0.142
50.193	0.000	0.00	1.51	0.11	0.141
50.377	0.000	0.00	1.49	0.11	0.139
50.561	0.000	0.00	1.48	0.11	0.137
50.745	0.000	0.00	1.46	0.11	0.136
50.928	0.000	0.00	1.44	0.11	0.134
51.112	0.000	0.00	1.42	0.11	0.132
51.296	0.000	0.00	1.41	0.11	0.131
51.480	0.000	0.00	1.39	0.11	0.129
51.664	0.000	0.00	1.37	0.11	0.128
51.848	0.000	0.00	1.35	0.11	0.126
52.031	0.000	0.00	1.34	0.11	0.124
52.215	0.000	0.00	1.32	0.11	0.123
52.399	0.000	0.00	1.30	0.11	0.121
52.583	0.000	0.00	1.28	0.11	0.119
52.767	0.000	0.00	1.27	0.11	0.118
52.951	0.000	0.00	1.25	0.11	0.116
53.134	0.000	0.00	1.23	0.11	0.114
53.318	0.000	0.00	1.21	0.11	0.113
53.502	0.000	0.00	1.19	0.11	0.111

53.686	0.000	0.00	1.18	0.11	0.109
53.870	0.000	0.00	1.16	0.11	0.108
54.054	0.000	0.00	1.14	0.11	0.106
54.237	0.000	0.00	1.12	0.11	0.105
54.421	0.000	0.00	1.11	0.11	0.103
54.605	0.000	0.00	1.09	0.11	0.101
54.789	0.000	0.00	1.07	0.11	0.100
54.973	0.000	0.00	1.05	0.11	0.098
55.157	0.000	0.00	1.04	0.11	0.096
55.340	0.000	0.00	1.02	0.11	0.095
55.524	0.000	0.00	1.00	0.11	0.093
55.708	0.000	0.00	0.98	0.11	0.091
55.892	0.000	0.00	0.97	0.11	0.090
56.076	0.000	0.00	0.95	0.10	0.088
56.260	0.000	0.00	0.93	0.10	0.087
56.443	0.000	0.00	0.92	0.10	0.085
56.627	0.000	0.00	0.90	0.10	0.084
56.811	0.000	0.00	0.88	0.10	0.082
56.995	0.000	0.00	0.87	0.09	0.081
57.179	0.000	0.00	0.85	0.09	0.079
57.363	0.000	0.00	0.84	0.09	0.078
57.546	0.000	0.00	0.82	0.09	0.077
57.730	0.000	0.00	0.81	0.09	0.075
57.914	0.000	0.00	0.80	0.09	0.074
58.098	0.000	0.00	0.78	0.09	0.073
58.282	0.000	0.00	0.77	0.08	0.071
58.466	0.000	0.00	0.75	0.08	0.070
58.649	0.000	0.00	0.74	0.08	0.069
58.833	0.000	0.00	0.73	0.08	0.068
59.017	0.000	0.00	0.72	0.08	0.067
59.201	0.000	0.00	0.70	0.08	0.065
59.385	0.000	0.00	0.69	0.08	0.064
59.569	0.000	0.00	0.68	0.07	0.063
59.752	0.000	0.00	0.67	0.07	0.062
59.936	0.000	0.00	0.66	0.07	0.061
60.120	0.000	0.00	0.64	0.07	0.060
60.304	0.000	0.00	0.63	0.07	0.059

60.488	0.000	0.00	0.62	0.07	0.058
60.672	0.000	0.00	0.61	0.07	0.057
60.855	0.000	0.00	0.60	0.07	0.056
61.039	0.000	0.00	0.59	0.06	0.055
61.223	0.000	0.00	0.58	0.06	0.054
61.407	0.000	0.00	0.57	0.06	0.053
61.591	0.000	0.00	0.56	0.06	0.052
61.775	0.000	0.00	0.55	0.06	0.051
61.958	0.000	0.00	0.54	0.06	0.050
62.142	0.000	0.00	0.53	0.06	0.049
62.326	0.000	0.00	0.52	0.06	0.048
62.510	0.000	0.00	0.51	0.06	0.048
62.694	0.000	0.00	0.50	0.05	0.047
62.878	0.000	0.00	0.49	0.05	0.046
63.061	0.000	0.00	0.49	0.05	0.045
63.245	0.000	0.00	0.48	0.05	0.044
63.429	0.000	0.00	0.47	0.05	0.044
63.613	0.000	0.00	0.46	0.05	0.043
63.797	0.000	0.00	0.45	0.05	0.042
63.981	0.000	0.00	0.44	0.05	0.041
64.164	0.000	0.00	0.44	0.05	0.041
64.348	0.000	0.00	0.43	0.05	0.040
64.532	0.000	0.00	0.42	0.05	0.039
64.716	0.000	0.00	0.41	0.05	0.039
64.900	0.000	0.00	0.41	0.04	0.038
65.084	0.000	0.00	0.40	0.04	0.037
65.267	0.000	0.00	0.39	0.04	0.037
65.451	0.000	0.00	0.39	0.04	0.036
65.635	0.000	0.00	0.38	0.04	0.035
65.819	0.000	0.00	0.37	0.04	0.035
66.003	0.000	0.00	0.37	0.04	0.034
66.187	0.000	0.00	0.36	0.04	0.033
66.370	0.000	0.00	0.35	0.04	0.033
66.554	0.000	0.00	0.35	0.04	0.032
66.738	0.000	0.00	0.34	0.04	0.032
66.922	0.000	0.00	0.34	0.04	0.031
67.106	0.000	0.00	0.33	0.04	0.031

67.290	0.000	0.00	0.32	0.04	0.030
67.473	0.000	0.00	0.32	0.03	0.030
67.657	0.000	0.00	0.31	0.03	0.029
67.841	0.000	0.00	0.31	0.03	0.029
68.025	0.000	0.00	0.30	0.03	0.028
68.209	0.000	0.00	0.30	0.03	0.028
68.393	0.000	0.00	0.29	0.03	0.027
68.576	0.000	0.00	0.29	0.03	0.027
68.760	0.000	0.00	0.28	0.03	0.026
68.944	0.000	0.00	0.28	0.03	0.026
69.128	0.000	0.00	0.27	0.03	0.025
69.312	0.000	0.00	0.27	0.03	0.025
69.496	0.000	0.00	0.26	0.03	0.024
69.679	0.000	0.00	0.26	0.03	0.024
69.863	0.000	0.00	0.25	0.03	0.024
70.047	0.000	0.00	0.25	0.03	0.023
70.231	0.000	0.00	0.24	0.03	0.023
70.415	0.000	0.00	0.24	0.03	0.022
70.599	0.000	0.00	0.24	0.03	0.022
70.782	0.000	0.00	0.23	0.03	0.022
70.966	0.000	0.00	0.23	0.02	0.021
71.150	0.000	0.00	0.22	0.02	0.021
71.334	0.000	0.00	0.22	0.02	0.020
71.518	0.000	0.00	0.22	0.02	0.020
71.702	0.000	0.00	0.21	0.02	0.020
71.885	0.000	0.00	0.21	0.02	0.019
72.069	0.000	0.00	0.20	0.02	0.019
72.253	0.000	0.00	0.20	0.02	0.019
72.437	0.000	0.00	0.20	0.02	0.018
72.621	0.000	0.00	0.19	0.02	0.018
72.805	0.000	0.00	0.19	0.02	0.018
72.988	0.000	0.00	0.19	0.02	0.017
73.172	0.000	0.00	0.18	0.02	0.017
73.356	0.000	0.00	0.18	0.02	0.017
73.540	0.000	0.00	0.18	0.02	0.017
73.724	0.000	0.00	0.17	0.02	0.016
73.907	0.000	0.00	0.17	0.02	0.016

74.091	0.000	0.00	0.17	0.02	0.016
74.275	0.000	0.00	0.17	0.02	0.015
74.459	0.000	0.00	0.16	0.02	0.015
74.643	0.000	0.00	0.16	0.02	0.015
74.827	0.000	0.00	0.16	0.02	0.015
75.010	0.000	0.00	0.15	0.02	0.014
75.194	0.000	0.00	0.15	0.02	0.014
75.378	0.000	0.00	0.15	0.02	0.014
75.562	0.000	0.00	0.15	0.02	0.014
75.746	0.000	0.00	0.14	0.02	0.013
75.930	0.000	0.00	0.14	0.02	0.013
76.113	0.000	0.00	0.14	0.02	0.013
76.297	0.000	0.00	0.14	0.01	0.013
76.481	0.000	0.00	0.13	0.01	0.012
76.665	0.000	0.00	0.13	0.01	0.012
76.849	0.000	0.00	0.13	0.01	0.012
77.033	0.000	0.00	0.13	0.01	0.012
77.216	0.000	0.00	0.12	0.01	0.012
77.400	0.000	0.00	0.12	0.01	0.011
77.584	0.000	0.00	0.12	0.01	0.011
77.768	0.000	0.00	0.12	0.01	0.011
77.952	0.000	0.00	0.12	0.01	0.011
78.136	0.000	0.00	0.11	0.01	0.011
78.319	0.000	0.00	0.11	0.01	0.010
78.503	0.000	0.00	0.11	0.01	0.010
78.687	0.000	0.00	0.11	0.01	0.010
78.871	0.000	0.00	0.11	0.01	0.010
79.055	0.000	0.00	0.10	0.01	0.010
79.239	0.000	0.00	0.10	0.01	0.010
79.422	0.000	0.00	0.10	0.01	0.009
79.606	0.000	0.00	0.10	0.01	0.009
79.790	0.000	0.00	0.10	0.01	0.009
79.974	0.000	0.00	0.10	0.01	0.009
80.158	0.000	0.00	0.09	0.01	0.009
80.342	0.000	0.00	0.09	0.01	0.009
80.525	0.000	0.00	0.09	0.01	0.008
80.709	0.000	0.00	0.09	0.01	0.008

80.893	0.000	0.00	0.09	0.01	0.008
81.077	0.000	0.00	0.09	0.01	0.008
81.261	0.000	0.00	0.08	0.01	0.008
81.445	0.000	0.00	0.08	0.01	0.008
81.628	0.000	0.00	0.08	0.01	0.008
81.812	0.000	0.00	0.08	0.01	0.007
81.996	0.000	0.00	0.08	0.01	0.007
82.180	0.000	0.00	0.08	0.01	0.007
82.364	0.000	0.00	0.08	0.01	0.007
82.548	0.000	0.00	0.07	0.01	0.007
82.731	0.000	0.00	0.07	0.01	0.007
82.915	0.000	0.00	0.07	0.01	0.007
83.099	0.000	0.00	0.07	0.01	0.007
83.283	0.000	0.00	0.07	0.01	0.006
83.467	0.000	0.00	0.07	0.01	0.006
83.650	0.000	0.00	0.07	0.01	0.006
83.834	0.000	0.00	0.07	0.01	0.006
84.018	0.000	0.00	0.06	0.01	0.006
84.202	0.000	0.00	0.06	0.01	0.006
84.386	0.000	0.00	0.06	0.01	0.006
84.570	0.000	0.00	0.06	0.01	0.006
84.753	0.000	0.00	0.06	0.01	0.006
84.937	0.000	0.00	0.06	0.01	0.006
85.121	0.000	0.00	0.06	0.01	0.005
85.305	0.000	0.00	0.06	0.01	0.005
85.489	0.000	0.00	0.06	0.01	0.005
85.673	0.000	0.00	0.06	0.01	0.005
85.856	0.000	0.00	0.05	0.01	0.005
86.040	0.000	0.00	0.05	0.01	0.005
86.224	0.000	0.00	0.05	0.01	0.005
86.408	0.000	0.00	0.05	0.01	0.005
86.592	0.000	0.00	0.05	0.01	0.005
86.776	0.000	0.00	0.05	0.01	0.005
86.959	0.000	0.00	0.05	0.01	0.005
87.143	0.000	0.00	0.05	0.01	0.004
87.327	0.000	0.00	0.05	0.01	0.004
87.511	0.000	0.00	0.05	0.01	0.004

87.695	0.000	0.00	0.05	0.00	0.004
87.879	0.000	0.00	0.04	0.00	0.004
88.062	0.000	0.00	0.04	0.00	0.004
88.246	0.000	0.00	0.04	0.00	0.004
88.430	0.000	0.00	0.04	0.00	0.004
88.614	0.000	0.00	0.04	0.00	0.004
88.798	0.000	0.00	0.04	0.00	0.004
88.982	0.000	0.00	0.04	0.00	0.004
89.165	0.000	0.00	0.04	0.00	0.004
89.349	0.000	0.00	0.04	0.00	0.004
89.533	0.000	0.00	0.04	0.00	0.004
89.717	0.000	0.00	0.04	0.00	0.003
89.901	0.000	0.00	0.04	0.00	0.003
90.085	0.000	0.00	0.04	0.00	0.003
90.268	0.000	0.00	0.04	0.00	0.003
90.452	0.000	0.00	0.04	0.00	0.003
90.636	0.000	0.00	0.03	0.00	0.003
90.820	0.000	0.00	0.03	0.00	0.003
91.004	0.000	0.00	0.03	0.00	0.003
91.188	0.000	0.00	0.03	0.00	0.003
91.371	0.000	0.00	0.03	0.00	0.003
91.555	0.000	0.00	0.03	0.00	0.003
91.739	0.000	0.00	0.03	0.00	0.003
91.923	0.000	0.00	0.03	0.00	0.003
92.107	0.000	0.00	0.03	0.00	0.003
92.291	0.000	0.00	0.03	0.00	0.003
92.474	0.000	0.00	0.03	0.00	0.003
92.658	0.000	0.00	0.03	0.00	0.003
92.842	0.000	0.00	0.03	0.00	0.003
93.026	0.000	0.00	0.03	0.00	0.003
93.210	0.000	0.00	0.03	0.00	0.003
93.394	0.000	0.00	0.03	0.00	0.002
93.577	0.000	0.00	0.03	0.00	0.002
93.761	0.000	0.00	0.03	0.00	0.002
93.945	0.000	0.00	0.03	0.00	0.002
94.129	0.000	0.00	0.02	0.00	0.002
94.313	0.000	0.00	0.02	0.00	0.002

94.496	0.000	0.00	0.02	0.00	0.002
94.680	0.000	0.00	0.02	0.00	0.002
94.864	0.000	0.00	0.02	0.00	0.002
95.048	0.000	0.00	0.02	0.00	0.002
95.232	0.000	0.00	0.02	0.00	0.002
95.416	0.000	0.00	0.02	0.00	0.002
95.599	0.000	0.00	0.02	0.00	0.002
95.783	0.000	0.00	0.02	0.00	0.002
95.967	0.000	0.00	0.02	0.00	0.002
96.151	0.000	0.00	0.02	0.00	0.002
96.335	0.000	0.00	0.02	0.00	0.002
96.519	0.000	0.00	0.02	0.00	0.002
96.702	0.000	0.00	0.02	0.00	0.002
96.886	0.000	0.00	0.02	0.00	0.002
97.070	0.000	0.00	0.02	0.00	0.002
97.254	0.000	0.00	0.02	0.00	0.002
97.438	0.000	0.00	0.02	0.00	0.002
97.622	0.000	0.00	0.02	0.00	0.002
97.805	0.000	0.00	0.02	0.00	0.002
97.989	0.000	0.00	0.02	0.00	0.002
98.173	0.000	0.00	0.02	0.00	0.002
98.357	0.000	0.00	0.02	0.00	0.002
98.541	0.000	0.00	0.02	0.00	0.001
98.725	0.000	0.00	0.02	0.00	0.001
98.908	0.000	0.00	0.02	0.00	0.001
99.092	0.000	0.00	0.02	0.00	0.001
99.276	0.000	0.00	0.02	0.00	0.001
99.460	0.000	0.00	0.01	0.00	0.001
99.644	0.000	0.00	0.01	0.00	0.001
99.828	0.000	0.00	0.01	0.00	0.001
100.011	0.000	0.00	0.01	0.00	0.001
100.195	0.000	0.00	0.01	0.00	0.001
100.379	0.000	0.00	0.01	0.00	0.001
100.563	0.000	0.00	0.01	0.00	0.001
100.747	0.000	0.00	0.01	0.00	0.001
100.931	0.000	0.00	0.01	0.00	0.001
101.114	0.000	0.00	0.01	0.00	0.001

101.298	0.000	0.00	0.01	0.00	0.001
101.482	0.000	0.00	0.01	0.00	0.001
101.666	0.000	0.00	0.01	0.00	0.001
101.850	0.000	0.00	0.01	0.00	0.001
102.034	0.000	0.00	0.01	0.00	0.001
102.217	0.000	0.00	0.01	0.00	0.001
102.401	0.000	0.00	0.01	0.00	0.001
102.585	0.000	0.00	0.01	0.00	0.001
102.769	0.000	0.00	0.01	0.00	0.001

Attachment C

Educational Materials

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Inquiries

NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA

Data description

Data type: Precipitation depth **Units:** English **Time series type:** Partial duration

Select location

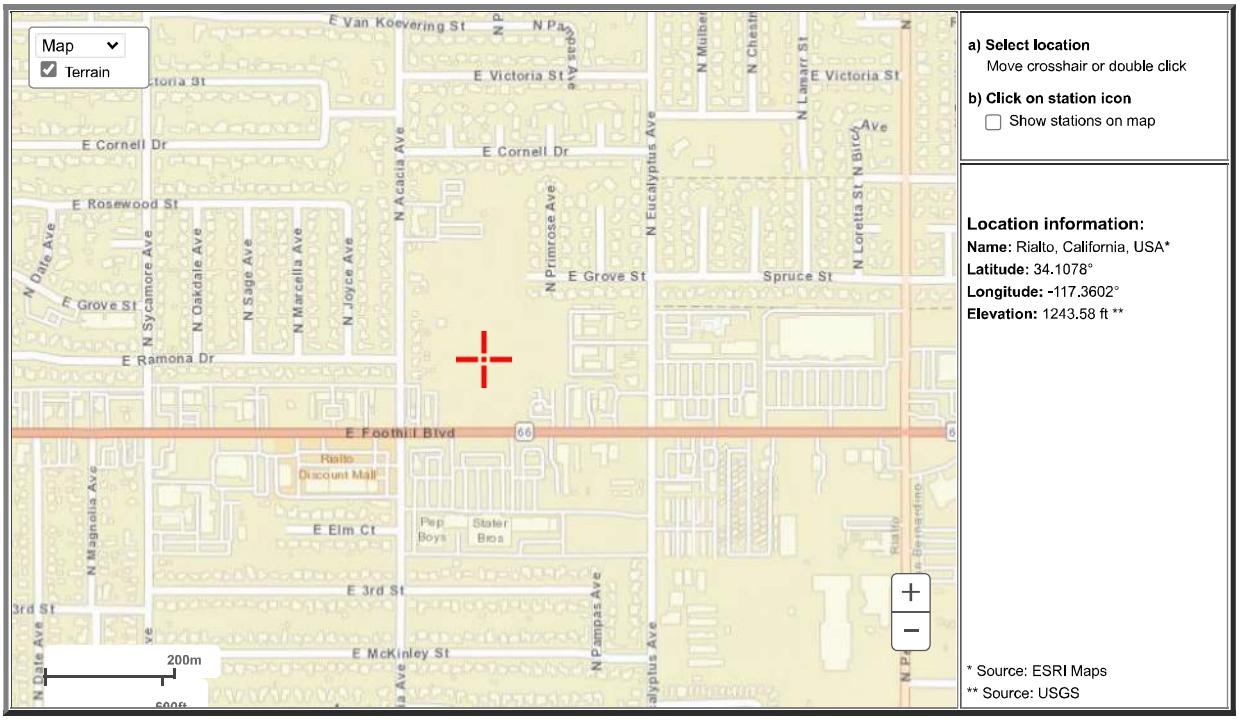
1) Manually:

a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude: Submit

b) By station (list of CA stations): Select station

c) By address 531 Foothill Blvd Rialto, CA 92376

2) Use map (if ESRI interactive map is not loading, try adding the host: **https://js.arcgis.com/** to the firewall, or contact us at hdsc.questions@noaa.gov):



POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 6, Version 2

PF tabular PF graphical Supplementary information Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.126** (0.105-0.153)	**0.164** (0.136-0.199)	**0.213** (0.177-0.260)	**0.254** (0.209-0.312)	**0.311** (0.247-0.395)	**0.355** (0.276-0.462)	**0.401** (0.304-0.535)	**0.450** (0.331-0.617)	**0.517** (0.365-0.740)	**0.571** (0.389-0.847)
10-min	**0.181** (0.151-0.220)	**0.235** (0.195-0.285)	**0.305** (0.253-0.372)	**0.364** (0.299-0.448)	**0.445** (0.354-0.566)	**0.509** (0.396-0.662)	**0.575** (0.436-0.766)	**0.645** (0.475-0.884)	**0.741** (0.523-1.06)	**0.819** (0.558-1.21)
15-min	**0.219** (0.182-0.266)	**0.284** (0.236-0.345)	**0.369** (0.306-0.450)	**0.440** (0.362-0.541)	**0.539** (0.428-0.685)	**0.616** (0.479-0.800)	**0.695** (0.527-0.927)	**0.779** (0.574-1.07)	**0.896** (0.633-1.28)	**0.990** (0.674-1.47)
30-min	**0.324** (0.269-0.393)	**0.419** (0.348-0.509)	**0.545** (0.452-0.665)	**0.650** (0.535-0.799)	**0.795** (0.632-1.01)	**0.909** (0.707-1.18)	**1.03** (0.778-1.37)	**1.15** (0.848-1.58)	**1.32** (0.934-1.89)	**1.46** (0.996-2.17)
60-min	**0.465** (0.387-0.564)	**0.602** (0.500-0.732)	**0.784** (0.650-0.955)	**0.935** (0.769-1.15)	**1.14** (0.908-1.45)	**1.31** (1.02-1.70)	**1.48** (1.12-1.97)	**1.65** (1.22-2.27)	**1.90** (1.34-2.72)	**2.10** (1.43-3.12)
2-hr	**0.677** (0.563-0.821)	**0.869** (0.723-1.06)	**1.12** (0.932-1.37)	**1.33** (1.10-1.64)	**1.62** (1.29-2.06)	**1.84** (1.43-2.39)	**2.07** (1.57-2.76)	**2.31** (1.70-3.17)	**2.64** (1.86-3.78)	**2.90** (1.98-4.30)
3-hr	**0.842** (0.701-1.02)	**1.08** (0.898-1.31)	**1.39** (1.15-1.70)	**1.65** (1.35-2.02)	**2.00** (1.59-2.54)	**2.27** (1.76-2.95)	**2.54** (1.93-3.39)	**2.83** (2.09-3.88)	**3.23** (2.28-4.62)	**3.54** (2.41-5.25)
6-hr	**1.20** (0.994-1.45)	**1.53** (1.27-1.86)	**1.97** (1.63-2.40)	**2.32** (1.91-2.86)	**2.81** (2.23-3.57)	**3.18** (2.47-4.13)	**3.56** (2.70-4.74)	**3.95** (2.91-5.42)	**4.48** (3.16-6.41)	**4.90** (3.34-7.26)
12-hr	**1.61** (1.34-1.95)	**2.06** (1.71-2.51)	**2.65** (2.20-3.23)	**3.13** (2.57-3.85)	**3.77** (3.00-4.80)	**4.26** (3.32-5.54)	**4.76** (3.61-6.35)	**5.27** (3.88-7.23)	**5.96** (4.20-8.53)	**6.49** (4.42-9.62)
24-hr	**2.15** (1.91-2.48)	**2.78** (2.46-3.21)	**3.60** (3.17-4.16)	**4.25** (3.72-4.96)	**5.13** (4.34-6.18)	**5.79** (4.80-7.12)	**6.46** (5.23-8.14)	**7.14** (5.63-9.24)	**8.05** (6.09-10.9)	**8.76** (6.41-12.2)

2-day	**2.62** (2.32-3.02)	**3.45** (3.05-3.98)	**4.52** (3.99-5.23)	**5.39** (4.72-6.29)	**6.57** (5.56-7.92)	**7.47** (6.20-9.19)	**8.39** (6.80-10.6)	**9.33** (7.36-12.1)	**10.6** (8.03-14.3)	**11.6** (8.49-16.2)
3-day	**2.78** (2.46-3.20)	**3.72** (3.29-4.29)	**4.96** (4.37-5.74)	**5.98** (5.24-6.98)	**7.40** (6.26-8.91)	**8.49** (7.05-10.4)	**9.63** (7.80-12.1)	**10.8** (8.52-14.0)	**12.4** (9.41-16.8)	**13.7** (10.0-19.1)
4-day	**2.96** (2.62-3.41)	**4.01** (3.54-4.62)	**5.39** (4.76-6.24)	**6.55** (5.73-7.64)	**8.16** (6.91-9.83)	**9.43** (7.82-11.6)	**10.7** (8.70-13.5)	**12.1** (9.55-15.7)	**14.0** (10.6-18.9)	**15.6** (11.4-21.7)
7-day	**3.36** (2.98-3.87)	**4.58** (4.05-5.28)	**6.20** (5.47-7.17)	**7.55** (6.61-8.81)	**9.44** (7.99-11.4)	**10.9** (9.07-13.4)	**12.5** (10.1-15.7)	**14.1** (11.1-18.3)	**16.4** (12.4-22.1)	**18.2** (13.3-25.4)
10-day	**3.65** (3.24-4.21)	**5.00** (4.42-5.76)	**6.79** (5.99-7.86)	**8.30** (7.26-9.67)	**10.4** (8.80-12.5)	**12.1** (10.0-14.8)	**13.8** (11.2-17.4)	**15.6** (12.3-20.2)	**18.2** (13.8-24.5)	**20.2** (14.8-28.2)
20-day	**4.45** (3.94-5.13)	**6.13** (5.42-7.08)	**8.40** (7.41-9.72)	**10.3** (9.01-12.0)	**13.0** (11.0-15.6)	**15.1** (12.5-18.6)	**17.3** (14.0-21.8)	**19.7** (15.5-25.5)	**23.0** (17.4-31.0)	**25.7** (18.8-35.8)
30-day	**5.26** (4.66-6.06)	**7.27** (6.43-8.39)	**9.99** (8.81-11.6)	**12.3** (10.7-14.3)	**15.5** (13.1-18.7)	**18.0** (15.0-22.2)	**20.7** (16.8-26.1)	**23.6** (18.6-30.6)	**27.7** (20.9-37.3)	**31.0** (22.6-43.2)
45-day	**6.25** (5.54-7.21)	**8.64** (7.64-9.97)	**11.9** (10.5-13.7)	**14.6** (12.7-17.0)	**18.4** (15.6-22.2)	**21.4** (17.8-26.4)	**24.6** (20.0-31.0)	**28.1** (22.1-36.4)	**33.0** (24.9-44.5)	**36.9** (27.0-51.5)
60-day	**7.28** (6.45-8.39)	**10.0** (8.86-11.6)	**13.7** (12.1-15.9)	**16.8** (14.7-19.6)	**21.2** (18.0-25.5)	**24.7** (20.5-30.4)	**28.4** (23.0-35.8)	**32.4** (25.5-41.9)	**38.0** (28.7-51.2)	**42.6** (31.1-59.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Estimates from the table in CSV format: Precipitation frequency estimates Submit

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Office of Water Prediction (OWP)
1325 East West Highway
Silver Spring, MD 20910
Page Author: HDSC webmaster
Page last modified: April 21, 2017

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Bernardino County Southwestern Part, California



August 26, 20

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

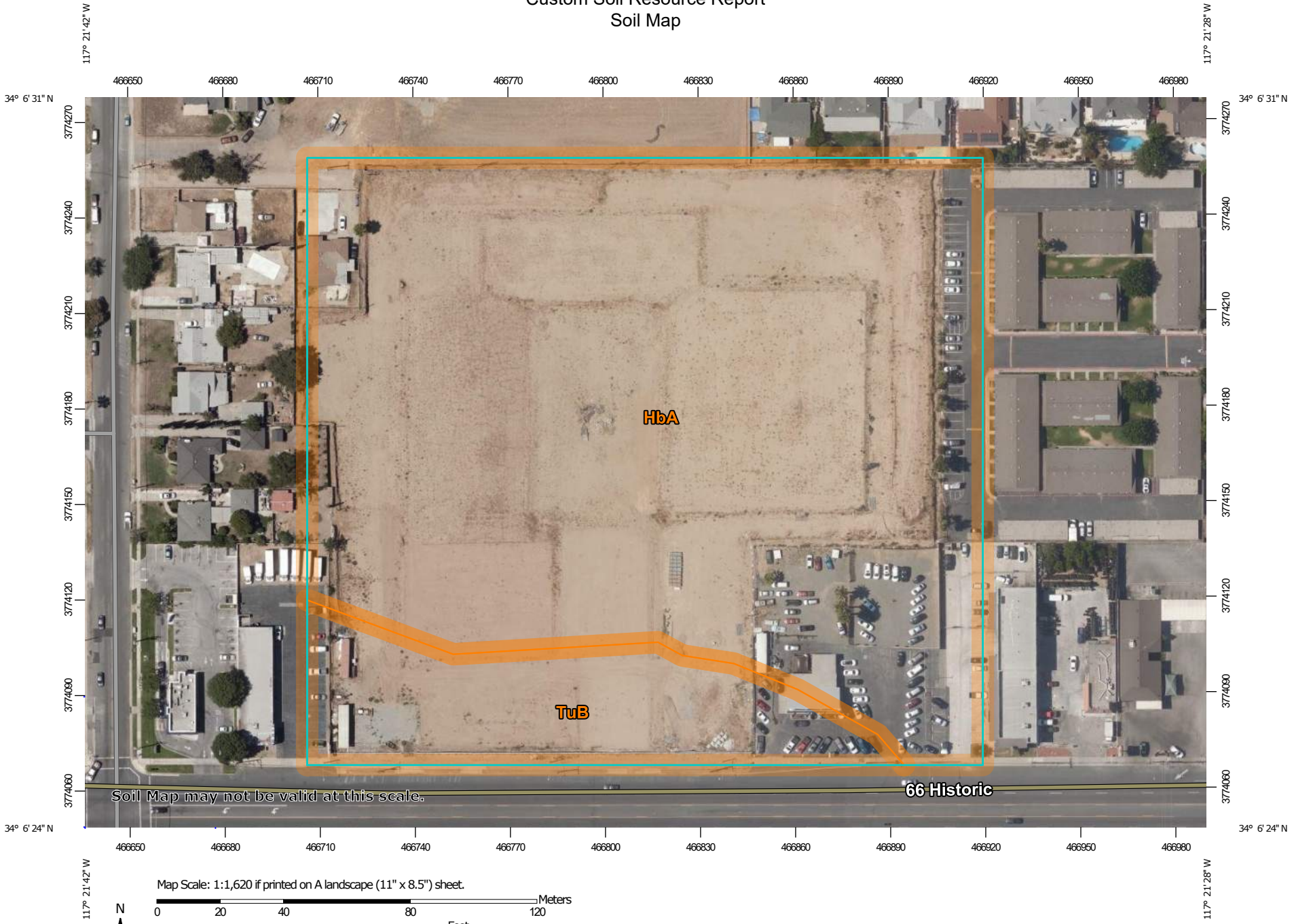
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,620 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 12, May 27, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 1, 2018—Jun 30, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HbA	Hanford sandy loam, 0 to 2 percent slopes	8.6	84.7%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	1.5	15.3%
Totals for Area of Interest		**10.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County Southwestern Part, California

HbA—Hanford sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hck5
Elevation: 150 to 900 feet
Mean annual precipitation: 10 to 20 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 250 to 280 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 12 inches: sandy loam
H2 - 12 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 3c
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 5 percent
Hydric soil rating: No

Hanford, steeper slopes
Percent of map unit: 5 percent
Hydric soil rating: No

Greenfield, sandy loam
Percent of map unit: 5 percent
Hydric soil rating: No

TuB—Tujunga loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2sx6y
Elevation: 650 to 3,110 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 62 to 65 degrees F
Frost-free period: 325 to 365 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Tujunga, loamy sand, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tujunga, Loamy Sand

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

A - 0 to 6 inches: loamy sand
C1 - 6 to 18 inches: loamy sand
C2 - 18 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Tujunga, gravelly loamy sand
Percent of map unit: 10 percent
Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hanford, sandy loam
Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

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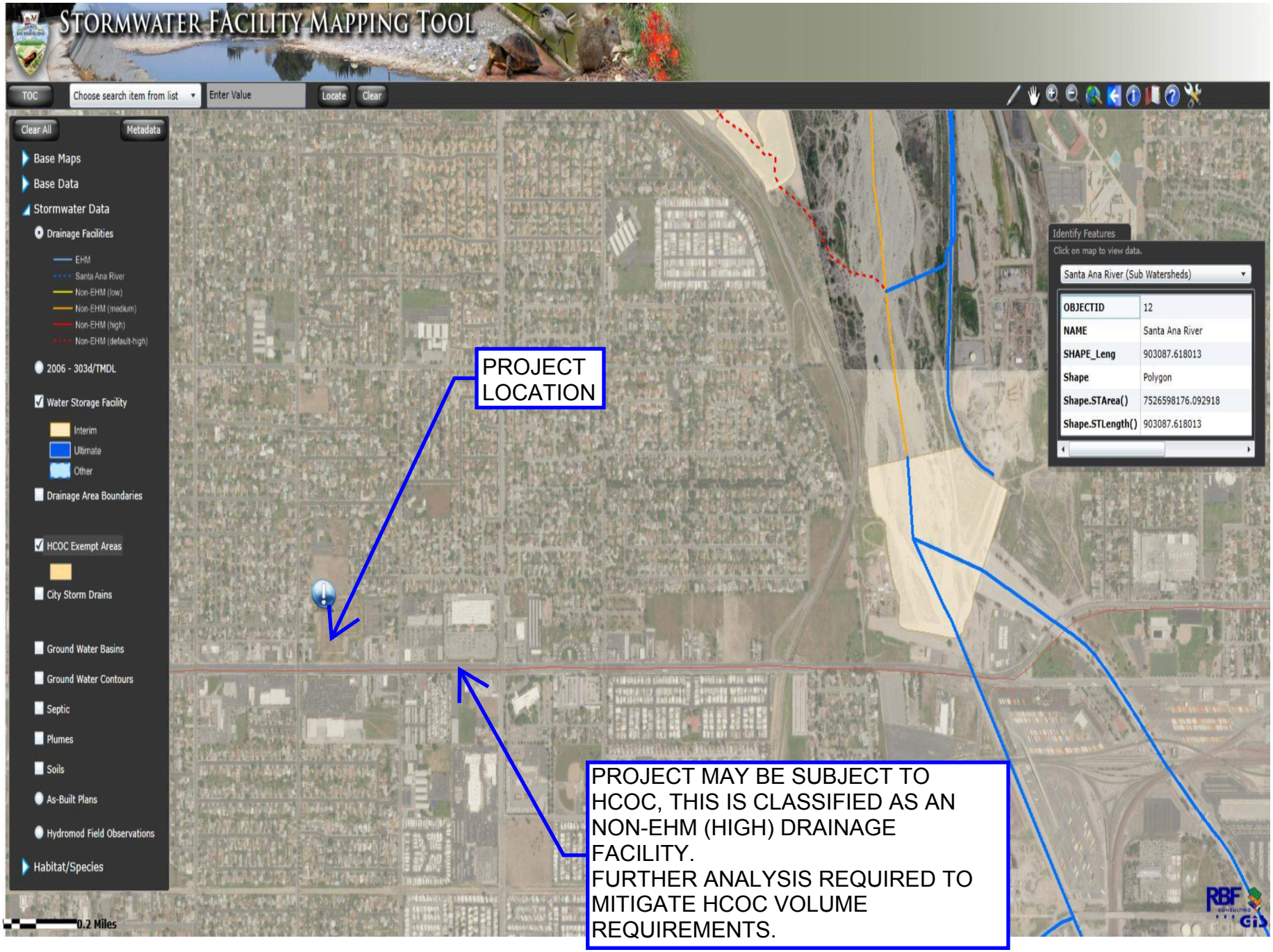
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Attachment D

Referenced Materials


STORMWATER FACILITY MAPPING TOOL
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Drainage Facilities
EHM
Santa Ana River
Non-EHM (low)
Non-EHM (medium)
Non-EHM (high)
Non-EHM (default-high)
2006 - 303d/TMDL
Water Storage Facility
Interim
Ultimate
Other
Drainage Area Boundaries
HCOC Exempt Areas
City Storm Drains
Ground Water Basins
Ground Water Contours
Septic
Plumes
Soils
As-Built Plans
Hydromod Field Observations
Habitat/Species
0.2 Miles
Identify Features
Click on map to view data.
Santa Ana River (Sub Watersheds)
OBJECTID 12
NAME Santa Ana River
SHAPE_Leng 903087.618013
Shape Polygon
Shape.STArea() 7526598176.092918
Shape.STLength() 903087.618013
PROJECT LOCATION
PROJECT MAY BE SUBJECT TO HCOC, THIS IS CLASSIFIED AS AN NON-EHM (HIGH) DRAINAGE FACILITY.
FURTHER ANALYSIS REQUIRED TO MITIGATE HCOC VOLUME REQUIREMENTS.







Attachment E

Geotechnical Report

GEOTECHNICAL AND INFILTRATION EVALUATION
PROPOSED MULTI-FAMILY RESIDENTIAL DEVELOPMENT
APN NOS. 0133-171-07, -08, -09 AND -31
NORTH ACACIA AVENUE & EAST FOOTHILL BOULEVARD
RIALTO, SAN BERNARDINO COUNTY, CALIFORNIA

PREPARED FOR

FRONTIER ENTERPRISES
2151 EAST CONVENTION CENTER WAY, SUITE 114
ONTARIO, CALIFORNIA 91764

PREPARED BY

GEOTEK, INC.
1548 NORTH MAPLE STREET
CORONA, CALIFORNIA 92880

PROJECT NO. 2749-CR **MAY 21, 2021**

GEOTEK

GeoTek, Inc.
1548 North Maple Street, Corona, California 92878
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

May 21, 2021
Project No. 2749-CR

Frontier Enterprises
2151 East Convention Center Way, Suite 114
Ontario, California 91764

Attention: Mr. Tim Nguyen

Subject: Geotechnical and Infiltration Evaluation
Proposed Multi-Family Residential Development
APN Nos. 0133-171-07, -08, -09 and -31
North Acacia Avenue & East Foothill Boulevard
Rialto, San Bernardino County, California

Dear Mr. Nguyen:

We are pleased to provide herein the results of our geotechnical and infiltration evaluation for the subject site located in Rialto, San Bernardino County, California. This report presents a discussion of our evaluation and provides preliminary geotechnical recommendations for earthwork, foundation design, and construction.

In our opinion, site development appears feasible from a geotechnical viewpoint provided that the recommendations included herein are incorporated into the design and construction phases of site development.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.





Edward H. LaMont
CEG 1892, Exp. 07/31/22
Principal Geologist

Robert R. Russell
GE 2042, Exp. 12/31/22
Senior Project Engineer

Anna M. Scott
Project Geologist

Distribution: (1) Addressee

G:\Projects\2701 to 2750\2749CR Frontier Enterprises N Acacia Ave & E Foothill Rialto\Geotechnical and Infiltration Evaluation\2749CR Geotechnical and Infiltration Evaluation Rialto.docx

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ENCLOSURES

Figure 1 – Site Location and Topography Map
Figure 2 – Boring Location Map

Appendix A – Logs of Exploratory Borings
Appendix B – Laboratory Test Results
Appendix C – Infiltration Test Data
Appendix D – Seismic Settlement Analysis
Appendix E – General Grading Guidelines

1. PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to complete an evaluation of the existing geotechnical conditions at the project site, as outlined in our proposal P-0408121-CR, dated April 22, 2021. Services provided for this study included the following:

- Research and review of available geologic and geotechnical data, and general information pertinent to the site,
- Perform a site reconnaissance,
- Site exploration consisting of the excavation and sampling of six exploratory borings observed and logged by a geologist from our firm,
- Excavation of two additional shallow borings for infiltration testing and performance of percolation testing in each of these borings,
- Collection of representative soil samples from the test borings and performing laboratory testing on select samples,
- Review and evaluation of site seismicity, and
- Compilation of this updated geotechnical report which presents our recommendations for site development.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

2.1 SITE DESCRIPTION

The site is located on the north side of Foothill Boulevard and east of the intersection with Acacia Avenue in Rialto, San Bernardino County, California. The site consists of vacant land and slopes gently downward to the south with about 5 feet of elevation differential. The site is bordered by residential and commercial properties. The location of the site is indicated on Figure 1.

Various aerial photographs dated 1930 to 2020, which included coverage of the site, were reviewed.

The site appears to be land utilized for agriculture in the 1930 and 1938 aerial photographs. Structures are present in the south portion of the site in the 1949 and 1953 aerial photographs. The remaining portions of the site appear to be land utilized for agriculture. The site is cleared of agriculture in the 1959, 1966, 1968, 1975, 1985, 1989 and 1990 aerial photographs. Structures are still evident in the south portion of the site.

Structures in the southeast portion of the site appear to have been demolished in the 1995 aerial photograph. Structures can be observed in the southwest portion of the site. The remaining portions of the site appear to be vacant and developed land. One of the structures in the southwest portion of the site appears to have been demolished in the 2002 and 2006 aerial photographs. One structure is still present in the southwest portion of the site. The remaining portions of the site appear to be vacant and developed land.

The structure in the southwest portion of the site appears to have been demolished in the 2009 aerial photograph. The remaining portions of the site appear to be vacant and developed land.

The site appears to be vacant and developed land in the 2012 aerial photograph. Grading can be observed on the site in the 2016 aerial photograph. The site appears to be vacant and similar to current conditions in the 2020 aerial photograph.

2.2 PROPOSED DEVELOPMENT

Although development plans have not yet been prepared, we understand that the site development will consist of multi-family (apartment) buildings along with surface improvements, underground utilities and stormwater management facilities.

We have assumed that the structures will consist of 1 to 3-story buildings and will be supported by conventional shallow foundations and will incorporate slab on-grade floor systems. Although structural loading information has not been provided, we have assumed maximum column and wall laods of less than 75 kips and 4 kips per foot, respectively. Once actual structural loads are known, that information should be provided to GeoTek to determine if revisions to the recommendations presented in this report are warranted.

Based on the current site topography, we anticipate that the maximum depths of cut and fill will be about 5 feet, not including any remedial grading. If site development differs from the assumptions made herein, the recommendations included in this report should be subject to further review and evaluation. Site development plans should be reviewed by GeoTek when they become available.

3. FIELD EXPLORATION & LABORATORY TESTING

3.1 FIELD EXPLORATION

The field exploration for GeoTek's evaluation was conducted on May 3, 2021 and consisted of excavating six (6) geotechnical exploratory borings extended to depths ranging from about 20 to 51 feet below ground surface. Two shallow borings were also drilled to depths of about 5 feet for percolation testing. The approximate locations of the GeoTek excavations are shown on the Boring Location Map (Figure 2). Logs of the GeoTek borings are included in Appendix A.

Relatively undisturbed soil samples were recovered at various intervals in the geotechnical borings with a California sampler. The California sampler is a 3-inch outside diameter, 2.4-inch inside diameter, split barrel sampler lined with brass rings. The sampler was 18 inches long. The sampler conformed to the requirements of ASTM D 3550. A 140-pound automatic trip hammer was utilized, dropping 30 inches for each blow. The relatively undisturbed samples, together with bulk samples of representative soil types, were returned to the laboratory for testing and evaluation. The California ring sampler data is presented on the boring logs.

3.2 LABORATORY TESTING

Laboratory testing was performed by GeoTek on selected soil samples obtained from the borings. The purpose of the laboratory testing was to confirm the field classification of the soils encountered and to evaluate the physical properties of the soils for use in engineering design and analysis.

Included in our laboratory testing were moisture-density determinations and collapse testing on selected relatively undisturbed samples. The optimum moisture content-maximum dry density relationship was established for typical soil types so that the relative compaction of the subsoils could be determined. Direct shear testing was performed on selected samples to help evaluate the bearing capacity of the soils. Expansion index testing was performed on two selected sample to evaluate the expansion potential of the site soils. Chemical testing comprised of pH, soluble sulfate, chloride and resistivity testing was conducted on selected samples. The moisture-density data is presented on the exploration logs in Appendix A. The maximum density, direct shear, collapse tests, expansion index and chemical test data are presented in Appendix B.

3.3 PERCOLATION TESTING

Percolation testing was performed at boring locations I-1 and I-2, in the area anticipated to be used for stormwater infiltration, to assess the infiltration characteristics of the site soils within the future stormwater management basin. These borings were excavated to approximately 5 feet below the existing grade. The boring diameter was approximately eight inches. Subsequent to overnight pre-soaking, percolation testing was performed, in accordance with the methods approved by San Bernardino County, within the lower approximately 20 inches in the borings. The percolation rates were then corrected to account for discharge of water from both the sides and bottom of the borings. This correction was performed using the Porchet Method, obtaining the infiltration rates tabulated below:

SUMMARY OF RESULTS		
Boring	Measured Field Percolation Rate (minutes per inch)	Calculated Infiltration Rate (inches per hour)
I-1	2.22	3.54
I-2	2.31	3.35

Copies of the field data sheets and infiltration conversion sheets (Porchet Method) are included in Appendix C. The reported infiltration rate is the measured rate without any factor of safety applied. Over the lifetime of the detention basin, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates in design the infiltration system.

It should be noted that the infiltration rates provided above were performed in relatively undisturbed native soils. Infiltration rates will vary and are mostly dependent on the underlying consistency of the site soils and relative density. Infiltration rates will be impacted by weight of equipment travelling over the soils, placement of engineered fill and other various factors. GeoTek, Inc. assumes no responsibility or liability for the ultimate design or performance of the storm water facility.

4. GEOLOGIC AND SOILS CONDITIONS

4.1 REGIONAL SETTING

The subject property is situated in the Peninsular Ranges geomorphic province near the border with the Transverse Ranges. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends roughly 975 miles from the north and extends from the Transverse Ranges geomorphic province to the tip of Baja California, from north to south. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

More specific to the subject property, the site is located in an area geologically mapped to be underlain by alluvium (Dibblee, T. W. and Minch, J.A., 2004), described as gravel and sand.

4.2 GENERAL SOIL/GEOLOGIC CONDITIONS

A brief description of the earth materials encountered below the site and within the area of anticipated construction is presented in the following section. Based on our field exploration, the area of anticipated improvements is underlain by alluvium.

4.2.1 Undocumented Fill

Undocumented fill was observed within all geotechnical borings and extended to depths ranging from about 6 to 8-½ feet below existing grade. As encountered in the borings, the undocumented fill consisted of a medium dense to very dense silty sand with trace gravel.

According to the results of the laboratory testing performed on two representative samples of the near surface soils, the near surface soils have a "very low" expansion potential (EI=0) when tested and classified in accordance with ASTM D 4829. The test results are provided in Appendix B.

4.2.2 Alluvium

Alluvium was encountered beneath the existing undocumented fill in all geotechnical borings and extended to the maximum depth explored. The alluvium encountered consisted of a medium dense to very dense silty sand with variable gravel and cobble content. The blow counts (N-values) obtained during field testing may have been elevated due to the presence of cobbles.

4.3 SURFACE AND GROUNDWATER

4.3.1 Surface Water

If encountered during the earthwork construction, surface water on this site is the result of precipitation or surface run-off from surrounding sites. Provisions for surface drainage will need to be accounted for by the project civil engineer.

4.3.2 Groundwater

Groundwater was not encountered within any of the GeoTek borings which extended to a maximum depth of about 50 feet below grade. A review of groundwater depth information noted on the State Department of Water Resources Water Data Library website indicates a depth to groundwater is greater than about 200 feet below grade within wells in the site vicinity.

It is possible that seasonal variations (temperature, rainfall, etc.) will cause fluctuations in the groundwater level. Additionally, perched water may be encountered at shallow depths following extensive rain events. If shallow perched water is encountered, we anticipate that it can be managed with conventional sump pumps.

4.4 FAULTING AND SEISMICITY

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The site is in a seismically active region. No active or potentially active fault is known to exist at this site nor is the site situated within an *"Alquist-Priolo"* Earthquake Fault Zone. The subject property is not located within a State of California Seismic Hazard Zone for earthquake induced landsliding. The site is also not within a seismic hazard area as identified on the San Bernardino County Geologic Hazards Overlay Map (Sheet FH30_C). The nearest zoned fault is the San Jacinto fault, located about 1.1 mile to the northeast.

4.4.1 Seismic Design Parameters

The site is located at approximately 34.1078 degrees Latitude and -117.3599 degrees Longitude. Site spectral accelerations (S_a and S_1), for 0.2 and 1.0 second periods for a Class "D" site, was determined from the SEAOC/OSHPD web interface that utilizes the USGS web services and retrieves the seismic design data and presents that information in a report format. Using the ASCE 7-16 option on the SEAOC/OSHPD website results in the values for S_{M1} and S_{D1} reported as "null-See Section 11.4.8" (of ASCE 7-16). As noted in ASCE 7-16, Section 11.4.8, a site-specific ground motion procedure is recommended for Site Class D when the value S_1 exceeds 0.2. The value S_1 for the subject site exceeds 0.2.

For a site Class D, an exception to performing a site-specific ground motion analysis is allowed in ASCE 7-16 where S_1 exceeds 0.2 provided the value of the seismic response coefficient, Cs, is conservatively calculated by Eq 12.8-2 of ASCE 7-16 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Eq. 12.8-3 for $T_L \geq T > 1.5T_s$ or Eq. 12.8-4 for $T > T_L$.

The results, based on the 2015 NEHRP and the 2019 CBC, are presented in the following table and we have assumed that the exception as allowed in ASCE 7-16 is applicable. If the exception is deemed not appropriate, a site-specific ground motion analysis will be required.

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, S_s	2.235g
Mapped 1.0 sec Period Spectral Acceleration, S_1	0.892g
Site Coefficient for Site Class "D", F_a	1.0
Site Coefficient for Site Class "D", F_v	1.7
Maximum Considered Earthquake Spectral Response Acceleration for 0.2 Second, S_{MS}	2.235g
Maximum Considered Earthquake Spectral Response Acceleration for 1.0 Second, S_{M1}	1.516g
5% Damped Design Spectral Response Acceleration Parameter at 0.2 Second, S_{DS}	1.49g
5% Damped Design Spectral Response Acceleration Parameter at 1 second, S_{D1}	1.011g
Peak Ground Acceleration Adjusted for Site Class Effects, PGA_M	1.036g
Seismic Design Category	E

4.5 LIQUEFACTION CONSIDERATIONS

A review of the San Bernardino County Geologic Hazard Maps (Map FH30-C) indicates the site is not situated within an area that is designated as possessing a liquefaction hazard. Due to the current mapping and the great depth to groundwater (200+ feet), it is our opinion that the potential for liquefaction at this site due to nearby seismic activity is nil.

An assessment of the "dry" settlement (i.e. settlement above the water table) resulting from seismic shaking was also evaluated. For this analysis we used a groundwater depth of 100 feet, a ground acceleration (PGA_M) of 1.036g and a mean earthquake magnitude of 7.39. The ground acceleration and earthquake magnitude were obtained from the USGS websites. The computer software program LiquefyPro and the soil profiled from Boring B-1 were used in the analysis. The results of this analysis indicate a potential ground surface settlement of about 1 inch is possible. A differential seismic settlement of about ½ inch over a 40 foot span is estimated. Based on these estimated magnitudes, ground modification or special foundation design is not deemed necessary. The results of the seismic dry settlement analysis are presented in Appendix D.

4.6 OTHER SEISMIC HAZARDS

Evidence of ancient landslides or slope instabilities at this site was not observed during our investigation. Thus, the potential for landslides is considered negligible for design purposes. The potential for secondary seismic hazards such as a seiche or tsunami is considered negligible due to site elevation and distance to an open body of water.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 GENERAL

Development of the site appears feasible from a geotechnical viewpoint. The following recommendations should be incorporated into the design and construction phases of development.

5.2 EARTHWORK CONSIDERATIONS

Earthwork and grading should be performed in accordance with the applicable grading ordinances of the City of Rialto, the 2019 California Building Code (CBC) and recommendations

contained in this report. Site grading plans should be reviewed by this office when they become available. Additional recommendations may be offered subsequent to review of these plans. The General Grading Guidelines included in Appendix E outline general procedures and do not anticipate all site-specific situations. In the event of conflict, the recommendations presented in the text of this report should supersede those contained in Appendix E.

5.2.1 Site Clearing

Initial site preparation should include removal of any encountered existing improvements, vegetation and any other deleterious materials within the planned development area of the site. Any old foundations or other below-grade construction should be removed within the limits of the new improvements. The horizontal limits of the clearing should extend at least 8 feet beyond the new buildings and beneath any new improvements.

Voids resulting from removing any materials should be replaced with engineered fill materials with expansion characteristics similar to the onsite materials.

5.2.2 Site Preparation

We recommend that the upper one foot of the existing undocumented fill beneath and extending at least 8 feet beyond the planned structures (including retaining walls and adjacent patios) be removed prior to additional fill placement. The soils exposed at the base of the over-excavation should then be examined by a GeoTek representative to confirm that the exposed soils are suitable for structural support. If unsuitable soils are encountered, those materials should be removed as recommended by GeoTek. Once approved, the exposed soils should be scarified to a depth of about 12 inches, be moisture treated to slightly above the soil's maximum dry density, per ASTM D1557, and then be compacted to at least 90% of the soil's maximum dry density (ASTM D1557).

Beneath new roadways, pavements, other surface improvements and areas to receive new fill, and following lowering of site grades, where necessary, we recommend that the existing soils be proof rolled in the presence of a GeoTek representative. Proof rolling equipment should possess a minimum static weight of 10 tons and proof rolling should consist of at least four passes, two in each perpendicular direction. Any soil that ruts or excessively deflects during proof rolling should be removed as recommended by the GeoTek representative. Following proof rolling, the exposed soils should be scarified, moisture treated and compacted as recommended in the prior paragraph.

5.2.3 Fills

On-site materials are generally considered suitable for reuse as engineered fill, provided they are free from vegetation, roots, and other deleterious material. Rock fragments (i.e. cobbles or boulders) greater than 6 inches in maximum dimension should not be incorporated into engineered fill. The fill materials should also be placed so that void resulting from nesting of cobbles does not occur.

Engineered fill materials should be placed in horizontal lifts not exceeding 8 inches in loose thickness, moisture conditioned to slightly over the optimum moisture content and compacted to a minimum relative compaction of 90 percent (ASTM D 1557).

5.2.4 Excavation Characteristics

Excavation in the on-site soils is expected to be feasible utilizing heavy-duty grading equipment in good operating condition. Due to the presence of cobbles and possible boulders, some excavation difficulties should be expected for excavations extending into the native alluvium.

5.2.5 Shrinkage/Bulking Estimates

Several factors will impact earthwork balancing on the site, including shrinkage, subsidence, trench spoil from utilities and footing excavations, as well as the accuracy of topography.

Shrinkage is primarily dependent upon the degree of compactive effort achieved during construction. For planning purposes, a shrinkage factor of approximately 0 to 8 percent may be considered for the materials requiring recompaction. Subsidence of less than 0.1 feet may also occur as a result of preparation of exposed ground. Site balance may also be impacted if over-sized materials are exported from the site.

5.2.6 Trench Excavations and Backfill

Temporary excavations within the onsite materials should be stable at 1:1 inclinations for short durations during construction, and where cuts do not exceed 10 feet in height. Temporary cuts to a maximum height of 4 feet can be excavated vertically, but local sloughing and/or failure could occur due to the granulated nature of the soils at this site. Increased caution should be applied when working near or within any excavations at this site.

Trench excavations should conform to Cal-OSHA regulations. The contractor should have a competent person, per OSHA requirements, on site during construction to observe conditions and to make the appropriate recommendations.

Utility trench backfill should be compacted to at least 90 percent relative compaction (as determined per ASTM D 1557). Under-slab trenches should also be compacted to project specifications. Onsite materials are not considered suitable for use as bedding material but should be suitable as backfill, provided over-sized materials are removed.

Compaction should be achieved with a mechanical compaction device. Ponding or jetting of trench backfill is not recommended. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

5.3 DESIGN RECOMMENDATIONS

Foundation design criteria for a conventional foundation system, in general conformance with the 2019 CBC, are presented below. The soils are classified as having a "very low" expansion potential in accordance with ASTM D 4829. Typical design criteria for the site based upon a "very low" expansion potential are tabulated below. These are minimal recommendations and are not intended to supersede the design by the project structural engineer. Once structural loading information is provided, revisions to the recommendations provided in this report may be necessary.

The conventional foundation elements for the proposed permanent buildings should bear entirely in engineered fill soils. Foundations should be designed in accordance with the 2019 CBC.

Expansion index and soluble sulfate evaluation of the soils should be performed during construction to evaluate the as-graded conditions. Final recommendations should be based upon the as-graded soils conditions.

A summary of our foundation design recommendations is presented in the following table:

GEOTECHNICAL RECOMMENDATIONS FOR FOUNDATION DESIGN

Design Parameter	"Very Low" Expansion Potential
Foundation Depth or Minimum Perimeter Beam Depth (inches below lowest adjacent grade)	12-1 &2 story 18-3 story
Minimum Foundation Width (Inches)*	12-1 story 15-2 story 18-3 story
Minimum Slab Thickness (actual)	4 – Actual
Minimum Slab Reinforcing	6" x 6" – W1.4/W1.4 welded wire fabric placed in middle of slab or No. 3 bars at 24 inch centers
Minimum Footing Reinforcement	Two No. 4 reinforcing bars, one placed near the top and one near the bottom
Effective Plasticity Index	PI<15
Presaturation of Subgrade Soil (Percent of Optimum)	Minimum of 100% of the optimum moisture content to a depth of at least 12 inches prior to placing concrete

* Code minimums per Table 1809.7 of the 2019 CBC

An allowable bearing capacity of 1,800 pounds per square foot (psf) may be used for design of building foundations for footing depths and widths of 12 inches. This allowable soil bearing capacity can be increased by 700 psf and 300 psf for each additional foot of footing depth or width to a maximum value of 3,000 psf. The allowable bearing capacity may also be increased by one-third when considering short-term wind and seismic loads.

For footings designed in accordance with the recommendations presented in this report, we would anticipate a maximum static settlement of less than one inch and a maximum differential static settlement of less than ½-inch in a 40-foot span.

The passive earth pressure may be computed as an equivalent fluid having a density of 270 psf per foot of depth, to a maximum earth pressure of 3,000 psf for footings cast adjacent to competent fill or alluvium. A coefficient of friction between soil and concrete of 0.4 may be used with dead load forces. The upper one foot of soil below the adjacent grade should not be used in calculating passive pressure unless the ground surface is covered with pavement. When combining passive and frictional resistance, the passive pressure component should be reduced by one-third.

A moisture and vapor retarding system should be placed below slabs-on-grade where moisture migration through the slab is undesirable. Guidelines for these are provided in the 2019 California Green Building Standards Code (CALGreen) Section 4.505.2 and the 2019 CBC Section 1907.1

and ACI 360R-10. The vapor retarder design and construction should also meet the requirements of ASTM E1643. A portion of the vapor retarder design should be the implementation of a moisture vapor retardant membrane.

It should be realized that the effectiveness of the vapor retarding membrane can be adversely impacted as a result of construction related punctures (e.g. stake penetrations, tears, punctures from walking on the aggregate layer, etc.). These occurrences should be limited as much as possible during construction. Thicker membranes are generally more resistant to accidental puncture than thinner ones. Products specifically designed for use as moisture/vapor retarders may also be more puncture resistant. Although the CBC specifies a six-mil vapor retarder membrane, it is GeoTek's opinion that a minimum 10 mil thick membrane with joints properly overlapped and sealed should be considered, unless otherwise specified by the slab design professional. The membrane should consist of Stego wrap or the equivalent.

Moisture and vapor retarding systems are intended to provide a certain level of resistance to vapor and moisture transmission through the concrete, but do not eliminate it. The acceptable level of moisture transmission through the slab is to a large extent based on the type of flooring used and environmental conditions. Ultimately, the vapor retarding system should be comprised of suitable elements to limit migration of water and reduce transmission of water vapor through the slab to acceptable levels. The selected elements should have suitable properties (i.e., thickness, composition, strength, and permeability) to achieve the desired performance level. Consideration should be given to consulting with an individual possessing specific expertise in this area for additional evaluation.

Moisture retarders can reduce, but not eliminate, moisture vapor rise from the underlying soils up through the slab. Moisture retarders should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Concrete Institute, ASTM and California Building Code requirements and guidelines.

GeoTek recommends that a qualified person, such as the flooring contractor, structural engineer, and/or architect be consulted to evaluate the general and specific moisture vapor transmission paths and associated potential impact.

In addition, the recommendations in this report and our services in general are not intended to address mold prevention, since we along with geotechnical consultants in general, do not practice in areas of mold prevention. If specific recommendations are desired, a professional mold prevention consultant should be contacted.

5.3.1 Miscellaneous Foundation Recommendations

5.3.1.1 To minimize moisture penetration beneath the slab on grade areas, utility trenches should be backfilled with engineered fill, lean concrete or concrete slurry where they intercept the perimeter footing or thickened slab edge.

5.3.1.2 Soils from the footing excavations should not be placed in the slab-on-grade areas unless properly compacted and tested. The excavations should be free of loose/sloughed materials and be neatly trimmed at the time of concrete placement.

5.3.1.3 Under-slab utility trenches should be compacted to project specifications. Compaction should be achieved with a mechanical compaction device. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

5.3.1.4 Utility trench excavations should be shored or laid back in accordance with applicable CAL/OSHA standards.

5.3.1.5 On-site materials may not be suitable for use as bedding material but will be suitable as backfill. Jetting of native soils will not be acceptable.

5.3.2 Foundation Setbacks

Foundations should comply with the following setbacks. Improvements not conforming to these setbacks are subject to the increased likelihood of excessive lateral movements and/or differential settlements. If large enough, these movements can compromise the integrity of the improvements. The following recommendations are presented:

- The outside bottom edge of all footings should be set back a minimum of H/3 (where H is the slope height) from the face of any descending slope. The setback should be at least 7 feet and need not exceed 40 feet.
- The bottom of all footings for structures near retaining walls should be deepened so as to extend below a 1:1 projection upward from the bottom inside edge of the wall stem.
- The bottom of any existing foundations for structures should be deepened so as to extend below a 1:1 projection upward from the bottom of the nearest excavation.

5.4 RETAINING WALL DESIGN AND CONSTRUCTION

5.4.1 General Design Criteria

Recommendations presented in this report apply to typical masonry or concrete vertical retaining walls. These are typical design criteria and are not intended to supersede the design by the structural engineer.

Retaining wall foundations should be designed in accordance with *Section 5.3* of this report. A minimum foundation embedment of 12 inches into engineered compacted fill with "very low" expansion potential is recommended. Structural needs may govern and should be evaluated by the project structural engineer.

All earth retention structure plans, as applicable, should be reviewed by this office prior to finalization.

The backfill material placement for all earth retention structures should meet the requirement of *Section 5.4.4* in this report.

In general, cantilever earth retention structures, which are designed to yield at least 0.001H, where H is equal to the height of the wall to the base of the footing, may be designed using the active condition. Rigid earth retention structures (including but not limited to rigid walls, and walls braced at top, such as typical basement walls) should be designed using the at-rest condition.

In addition to the design lateral forces due to retained earth, surcharges due to improvements, such as an adjacent building or traffic loading, should be considered in the design of the earth retention structures. Loads applied within a 1:1 (h:v) projection from the surcharge on the stem of the earth retention structure should be considered in the design.

Final selection of the appropriate design parameters should be made by the designer of the earth retention structures.

5.4.2 Cantilevered Walls

The recommendations presented below are for cantilevered retaining walls. Active earth pressure may be used for retaining wall design, provided the top of the wall is not restrained from minor deflections. An equivalent fluid pressure approach may be used to compute the horizontal pressure against the wall. Appropriate fluid unit weights are given below for specific

slope gradients of the retained material. These do not include other superimposed loading conditions such as traffic, structures, seismic events, or adverse geologic conditions.

Surface Slope of Retained Materials (h:v)	Equivalent Fluid Pressure (pcf) Native Backfill*
Level	38

* The design pressures assume the backfill material has an expansion index less than or equal to 20. Backfill zone includes area between the back of the wall and footing to a plane (1:1 h:v) up from the bottom of the wall foundation to the ground surface.

5.4.3 Restrained Retaining Walls

Retaining walls that will be restrained prior to placing and compacting backfill material, or that have reentrant or male corners, should be designed for an at-rest equivalent fluid pressure of 60 pcf, plus any applicable surcharge loading, for very low expansive backfill (EI<20) and level back slope condition. For areas of male or reentrant corners, the restrained wall design should extend a minimum distance of twice the height of the wall laterally from the corner, or a distance otherwise determined by the project structural engineer.

5.4.4 Retaining Wall Backfill and Drainage

Retaining wall backfill should consist of materials with an expansion index (EI) ≤ 20 and free of deleterious and/or oversized materials. The wall backfill should also include a minimum one-foot wide section of ¾- to 1-inch clean crushed rock (or approved equivalent). The rock should be placed immediately adjacent to the back of wall and extend up from the back drain to within approximately 12 inches of finish grade. The upper 12 inches should consist of compacted onsite materials or pavements. Presence of other materials might necessitate revision to the parameters provided and modification of wall designs. The backfill materials should be placed in lifts no greater than 8-inches in thickness and compacted to a minimum of 90 percent relative compaction in accordance with ASTM Test Method D 1557. Proper surface drainage needs to be provided and maintained. Bracing of the walls during backfilling and compaction may also be necessary.

All earth retention structures should be provided with an adequate pipe and gravel back drain system to reduce the potential for hydrostatic pressure build up. As a minimum, backdrains should consist of a four-inch diameter perforated collector pipe (Schedule 40, SDR 35, or approved equivalent) embedded in a minimum of one cubic foot per lineal foot of ¾- to 1-inch clean crushed rock or equivalent, wrapped in filter fabric (Mirafi 140N or approved equivalent). The drain system should be connected to a suitable outlet, as determined by the civil engineer. Drain outlets should be maintained over the life of the project and should not be

obstructed or plugged by adjacent improvements. Waterproofing of site walls should be performed where moisture migration through the wall is undesirable.

Proper surface drainage needs to be provided and maintained. Water should not be allowed to pond behind retaining walls. Waterproofing of site walls should be performed where moisture migration through the wall is undesirable.

5.5 SOIL CORROSIVITY

Based on the chemical test results performed on two samples collected from the site as presented in Appendix B, the corrosivity test results indicate that the on-site soils are "moderately corrosive" to "mildly corrosive" to buried ferrous metal. This corrosion classification is obtained from "Handbook of Corrosion Engineering," by Pierre R. Roberge, 2nd Edition, 2000. Recommendations for protection of buried ferrous metal should be provided by a corrosion engineer. Additional corrosion testing should be performed at the time of site grading to assess the corrosion of potential of the as-graded soils.

5.5.1 Soil Sulfate Content

The sulfate content was determined in the laboratory for two representative onsite soil samples. The results indicate that the water-soluble sulfate is less than 0.1 percent by weight which is considered "not applicable" (i.e. negligible) as per Table 4.2.1 of ACI 318. Based upon the test results, no special concrete mix design is required by Code for sulfate attack resistance.

5.5.2 Import Soils

Import soils (if needed) should have an Expansion Index of less than 20 (very low) and should not possess oversized or deleterious materials. GeoTek also recommends that, as a minimum, any proposed import soils be tested for soluble sulfate content. GeoTek should be notified a minimum of 72 hours of potential import sources so that appropriate sampling and laboratory testing can be performed.

5.6 PRELIMINARY PAVEMENT DESIGN

Preliminary pavement design for proposed street improvements was conducted per Caltrans *Highway Design Manual* guidelines for flexible pavements. Based on an assumed design R-value of 40 and for Traffic Indices (TIs) of 5.0 and 6.0, the following preliminary sections were calculated:

PRELIMINARY MINIMUM PAVEMENT SECTION		
Traffic Index	Thickness of Asphalt Concrete (inches)	Thickness of Aggregate Base (inches)
5.0	3	4
6.0	3-½	6

Traffic Indices (TIs) used in our pavement design are considered reasonable values for the proposed residential street areas and should provide a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance. Irrigation adjacent to pavements, without a deep curb or other cutoff to separate landscaping from the paving may result in premature pavement failure. Traffic parameters used for design were selected based upon engineering judgment and not upon information furnished to us such as an equivalent wheel load analysis or a traffic study.

The recommended pavement sections provided are intended as a minimum guideline and final selection of pavement cross section parameters should be made by the project civil engineer, based upon the local laws and ordinates, expected subgrade and pavement response, and desired level of conservatism. If thinner or highly variable pavement sections are constructed, increased maintenance and repair could be expected. Final pavement design should be checked by testing of soils exposed at subgrade (the upper five feet) after final grading has been completed.

Asphalt concrete and aggregate base should conform to current Caltrans Standard Specifications Section 39 and 26-1.02, respectively. As an alternative, asphalt concrete can conform to Section 203-6 of the current Standard Specifications for Public Work (Green Book). Crushed aggregate base or crushed miscellaneous base can conform to Section 200-2.2 and 200-2.4 of the Green Book, respectively. Pavement base should be compacted to at least 95 percent of the ASTM D1557 laboratory maximum dry density (modified proctor).

All pavement installation, including preparation and compaction of subgrade, compaction of base material, placement and rolling of asphaltic concrete should be done in accordance with the City of Rialto specifications, and under the observation and testing of GeoTek and a City Inspector where required. Jurisdictional minimum compaction requirements in excess of the aforementioned minimums may govern.

Deleterious material, excessive wet or dry pockets, oversized rock fragments, and other unsuitable yielding materials encountered during grading should be removed. Once existing compacted fill are brought to the proposed pavement subgrade elevations, the subgrade should be proof-rolled in order to check for a uniform and unyielding surface. The upper 12 inches of

pavement subgrade soils should be scarified, moisture conditioned at or near optimum moisture content, and recompacted to at least 95 percent of the laboratory maximum dry density (ASTM D1557). If loose or yielding materials are encountered during construction, additional evaluation of these areas should be carried out by GeoTek. All pavement section changes should be properly transitioned.

5.7 CONCRETE FLATWORK

5.7.1 Exterior Concrete Slabs and Sidewalks

Exterior concrete slabs and sidewalks should be designed using a four (4) inch minimum thickness. No specific reinforcement is required due to the non-structural nature and the very low expansive nature of the site soils. However, the use of some reinforcement should be considered. Recommendations can be provided upon request. Some shrinkage and cracking of the concrete should be anticipated as a result of typical mix designs and curing practices commonly utilized in residential construction.

Sidewalks and driveways may be under the jurisdiction of the governing agency. If so, jurisdictional design and construction criteria would apply, if more restrictive than the recommendations presented herein.

Subgrade soils, classified as having "very low" expansion potential, should be pre-moistened prior to placing concrete. The subgrade soils below exterior slabs, sidewalks, driveways, etc. at the subject site should be pre-saturated to a minimum of 100% of optimum moisture content to a depth of 12 inches for "very low" expansive soils.

All concrete installation, including preparation and compaction of subgrade, should be done in accordance with City of Rialto specifications, and under the observation and testing of GeoTek and a City Inspector, if necessary.

5.7.2 Concrete Performance

Concrete cracks should be expected. These cracks can vary from sizes that are essentially unnoticeable to more than 1/8 inch in width. Most cracks in concrete, while unsightly, do not significantly impact long-term performance. While it is possible to take measures (proper concrete mix, placement, curing, control joints, etc.) to reduce the extent and size of cracks that occur, some cracking will occur despite the best efforts to minimize it. Concrete can also undergo chemical processes that are dependent on a wide range of variables, which are difficult, at best, to control. Concrete, while seemingly a stable material, is also subject to internal expansion and contraction due to external changes over time.

One of the simplest means to control cracking is to provide weakened control joints for cracking to occur along. These do not prevent cracks from developing; they simply provide a relief point for the stresses that develop. These joints are a widely accepted means to control cracks but are not always effective. Control joints are more effective the more closely spaced they are. GeoTek suggests that control joints be placed in two directions and located a distance apart roughly equal to 24 to 36 times the slab thickness.

Exterior concrete flatwork (patios, walkways, driveways, etc.) is often some of the most visible aspects of site development. They are typically given the least level of quality control, being considered "non-structural" components. We suggest that the same standards of care be applied to these features as to the structure itself.

5.8 POST CONSTRUCTION CONSIDERATIONS

5.8.1 Landscape Maintenance and Planting

Water has been shown to weaken the inherent strength of soil, and slope stability is significantly reduced by overly wet conditions. Positive surface drainage away from graded slopes should be maintained and only the amount of irrigation necessary to sustain plant life should be provided for planted slopes. Controlling surface drainage and runoff and maintaining a suitable vegetation cover can minimize erosion. Plants selected for landscaping should be lightweight, deep-rooted types that require little water and are capable of surviving the prevailing climate.

Overwatering should be avoided. The soils should be maintained in a solid to semi-solid state as defined by the materials Atterberg Limits. Care should be taken when adding soil amendments to avoid excessive watering. Leaching as a method of soil preparation prior to planting is not recommended. An abatement program to control ground-burrowing rodents should be implemented and maintained. This is critical as burrowing rodents can decreased the long-term performance of slopes.

It is common for planting to be placed adjacent to structures in planter or lawn areas. This will result in the introduction of water into the ground adjacent to the foundation. This type of landscaping should be avoided. If used, then extreme care should be exercised with regard to the irrigation and drainage in these areas.

5.8.2 Drainage

The need to maintain proper surface drainage and subsurface systems cannot be overly emphasized. Positive site drainage should be maintained at all times. Drainage should not flow

uncontrolled down any descending slope. Water should be directed away from foundations and not allowed to pond or seep into the ground. Pad drainage should be directed toward approved areas and not be blocked by other improvements.

It is the owner's responsibility to maintain and clean drainage devices on or contiguous to their lot. In order to be effective, maintenance should be conducted on a regular and routine schedule and necessary corrections made prior to each rainy season.

5.9 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

We recommend that site foundation plans and relevant project specifications be reviewed by this office prior to construction to check for conformance with the recommendations of this report. We also recommend that GeoTek representatives be present during site grading and foundation construction to check for proper implementation of the geotechnical recommendations. The owner/developer should verify that GeoTek representatives perform at least the following duties:

- Observe site clearing and grubbing operations for proper removal of unsuitable materials.
- Observe and test bottom of removals prior to fill placement.
- Evaluate the suitability of onsite and import materials for fill placement and collect soil samples for laboratory testing where necessary.
- Observe the fill for uniformity during placement, including utility trenches.
- Perform field density testing of the fill materials.
- Observe and probe foundation excavations to confirm suitability of bearing materials.

If requested, a construction observation and compaction report can be provided by GeoTek, which can comply with the requirements of the governmental agencies having jurisdiction over the project. We recommend that these agencies be notified prior to commencement of construction so that necessary grading permits can be obtained.

6. INTENT

It is the intent of this report to aid in the design and construction of the proposed development. Implementation of the advice presented in Section 5 of this report is intended to reduce risk associated with construction projects. The professional opinions and geotechnical advice

contained in this report are not intended to imply total performance of the project or guarantee that unusual or variable conditions will not be discovered during or after construction.

The scope of our evaluation is limited to the boundaries of the subject residential lot. This review does not and should in no way be construed to encompass any areas beyond the specific area of the proposed construction as indicated to us by the client. Further, no evaluation of any existing site improvements is included. The scope is based on our understanding of the project and the client's needs, our fee estimate (P-0408121-CR) dated April 22, 2021 and geotechnical engineering standards normally used on similar projects in this region.

7. LIMITATIONS

The materials observed on the project site appear to be representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Since our recommendations are based on the site conditions observed and encountered, and laboratory testing, our conclusion and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

8. SELECTED REFERENCES

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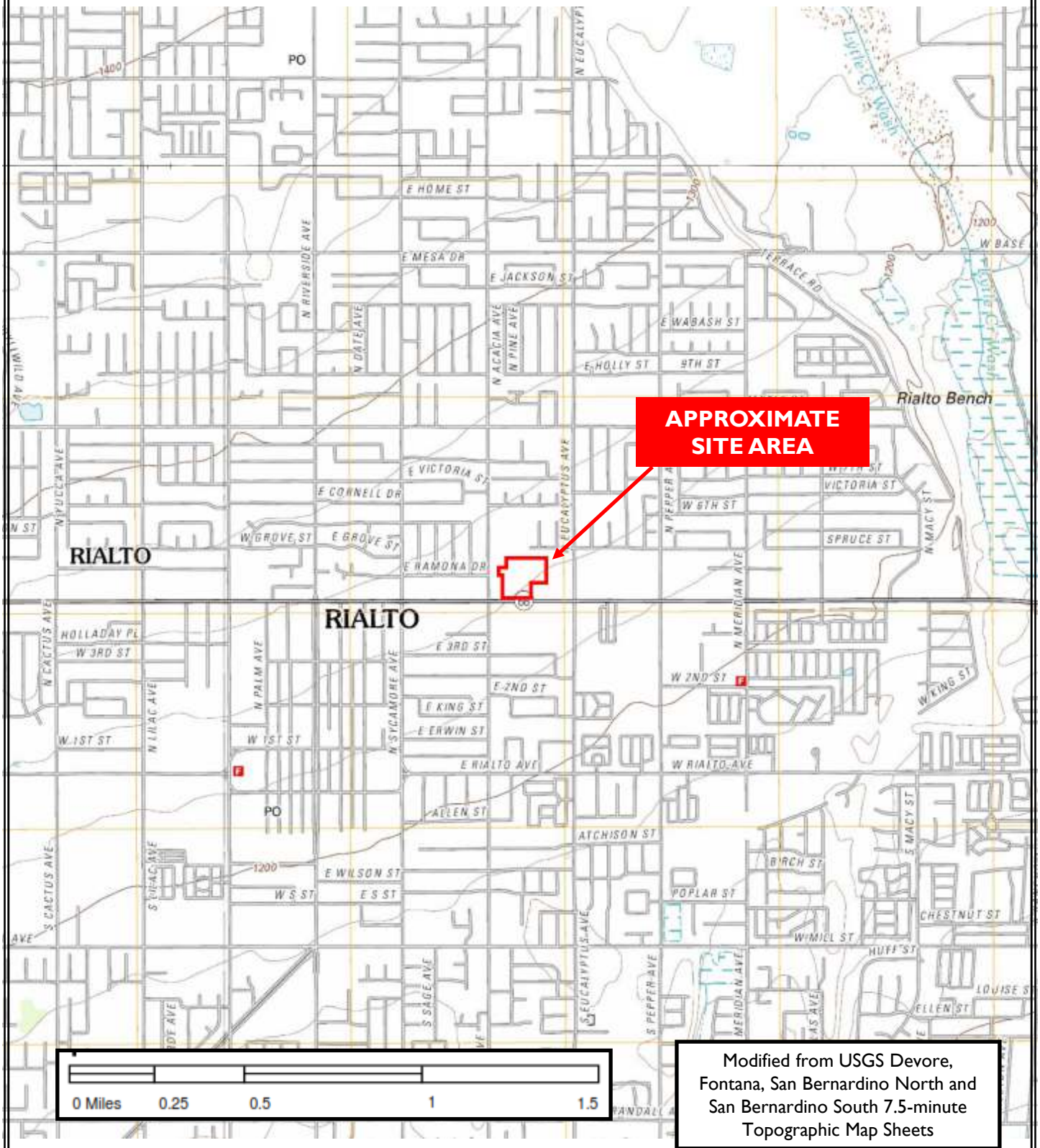
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Modified from USGS Devore, Fontana, San Bernardino North and San Bernardino South 7.5-minute Topographic Map Sheets

Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California

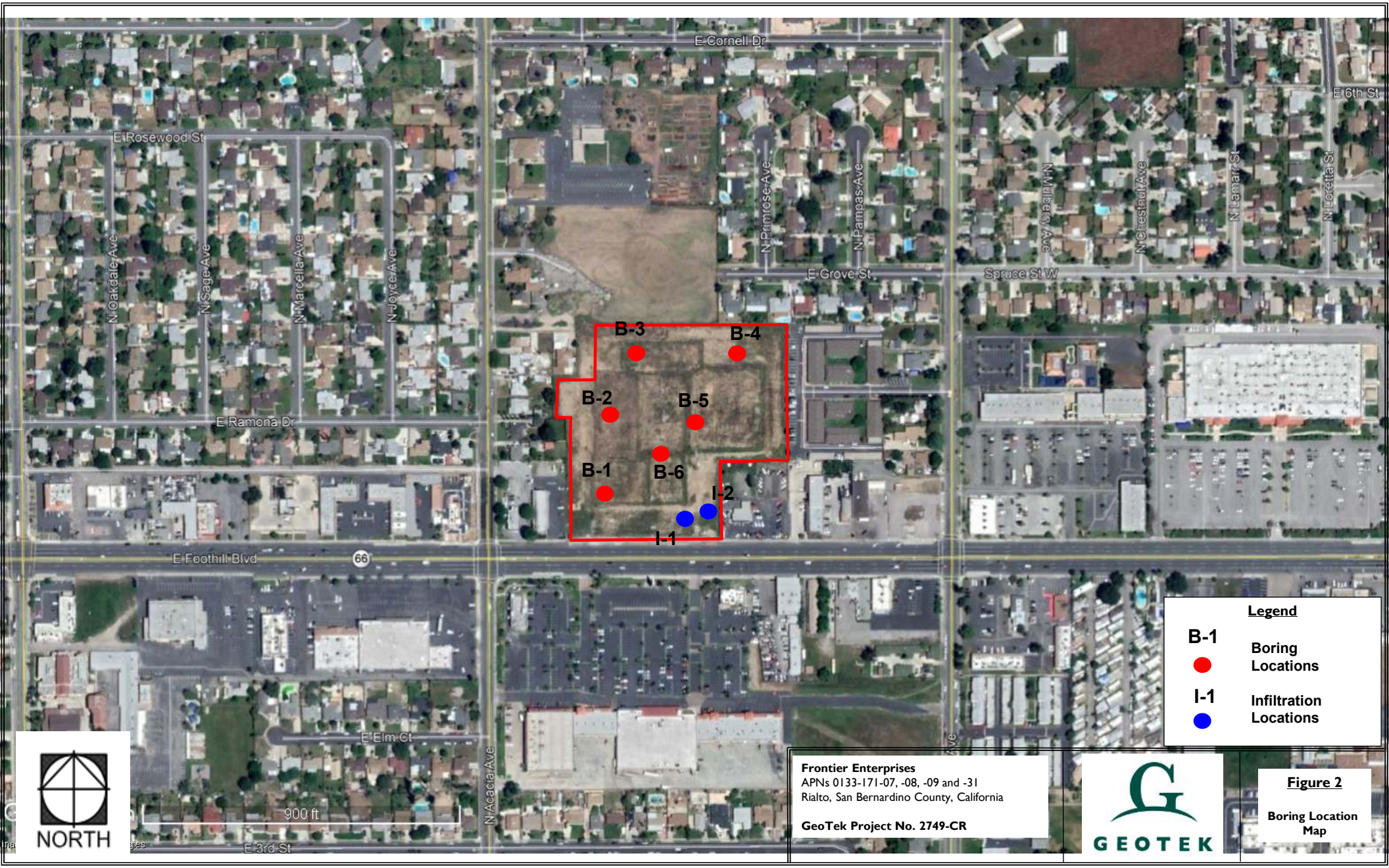
Project No. 2749-CR

NORTH

Figure 1

Site Location and Topography Map

GEOTEK



Frontier Enterprises
APNs 0133-171-07, -08, -09 and -31
Rialto, San Bernardino County, California

GeoTek Project No. 2749-CR

GEOTEK

Figure 2

Boring Location Map

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APPENDIX A

LOGS OF EXPLORATORY BORINGS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Modified Split-Barrel Sampler (Ring)

The ring sampler is driven into the ground in accordance with ASTM Test Method D 3550. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

B – BORING/TRENCH LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the logs of borings/trenches:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C: Contact line	
……..	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of boring/trench

(Additional denotations and symbols are provided on the log of borings/trenches)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
		18 50/6		SM	**Undocumented Fill:** Silty f sand, medium brown, slightly moist, very dense	5.3	132.7	SH, MD, EI, SR EI=0
		12 28 23			Silty f sand, medium brown, slightly moist, dense	4.0	124.2	
5		12 23 34			Silty f sand, medium brown, slightly moist, dense	6.8	129.1	
		21 37 41		SM	**Alluvium:** Silty m-c sand, dark grey, slightly moist, trace gravel & possible cobbles, dense	1.5		
10		9 17 22			Silty f-m sand, light brown, slightly moist, medium dense			
15		18 21 25			Silty f-c sand, light borwn, trace gravel, dense			
20		30 50-5"			Cobbles and Possible Boulders			
25		50-2"						
30		10 50-2"			Silty m-c Sand, dark grey, slightly moist, very dense trace gravel, possible cobbles			

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 (cont.) / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
35		50-5"			Silty m-c Sand, medium brown, slightly moist, very dense, trace gravel & cobbles			
40		50-6"			Silty m-c Sand, light grey, slightly moist, very dense, trace gravel & cobbles			
45		7 12 16		ML	Fine Sandy Silt, light brown, moist, very stiff			
50		34 50-5"		SM	Silty f-m Sand, light brown, moist, very dense, possible cobbles			
					BORING TERMINATED AT 51 FEET Boring backfilled with spoils No groundwaer encountered			
55								
60								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

BORING NO.: B-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		20 23 43		SM	Silty f-m Sand, dark brown, slightly moist, dense	6.0	133.8	
5		20 35 50/5.5			Silty f-m Sand, dark brown, slightly moist, very dense	6.6	134.1	
		13 28 33			Silty f-m Sand, dark brown, slightly moist, trace gravel, dense	6.6	127.6	Collapse
		14 37 50/4.5		SM	**Alluvium:** Silty f-m Sand, light brown, slightly moist, very dense, trace gravel & cobbles cobbles	2.2	133.9	
10		10 23 33			Silty f-m Sand, light brown, slightly moist, dense			
15		12 26 18			Silty f-m Sand, light borwn, slight moisture, dense			
20		17 50/6			Silty m-c Sand, medium brown, slight moisture, very dense, cobbles			
					BORING TERMINATED AT 20.5 FEET Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

BORING NO.: B-3

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		21 26 34		SM	Silty f-m Sand, medium brown, slightly moist, dense, trace gravel	6.2	123.3	
		14 15 16			Silty f-m Sand, dark brown, slightly moist, medium dense	5.2	130.3	
5		16 28 40			Silty f-m Sand, dark brown, slightly moist, dense	5.8	128.9	
		16 36 44			Silty f-m Sand, dark brown, slightly moist, very dense	7.1	131.4	
					Alluvium:			
10		15 20 25		SM	Silty fine Sand, slightly moist, medium dense			
15		12 50-5"			possible cobbles			
20		40 50-5"			Silty f-c Sand, dark brown, slighlty moist, very dense, gravel & cobbles			
					BORING TERMINATED AT 20.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

BORING NO.: B-4

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Water Content (%)	Dry Density (pcf)	Others
					Undocumented Fill:			MD, EI, SR EI-=0
		8 20 36		SM	Silty m-c Sand, grey, slightly moist, dense, trace gravel	3.1	126.3	
5		8 30 34			Silty m-c Sand, grey, slightly moist, dense, trace gravel	2.2	117.4	
		26 50		SM	**Alluvium:** Silty m-c Sand, light brown, slightly moist, very dense, trace gravel	2.4	125.7	Collapse
		19 40 50/5			Silty m-c Sand, light brown, slightly moist, very dense trace gravel & cobbles			
10		14 27 45			Silty m-c Sand, light brown, slightly moist, very dense trace gravel			
15		32 50-5"			Silty m-c Sand, light brown, slightly moist, very dense, trace gravel & cobbles			
20		50-6"			Silty m-c Sand, light brown, slightly moist,very dense, trace gravel & cobbles			
					BORING TERMINATED AT 20.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-5 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		28 50-6"		SM	Silty f-m Sand, dark brown, very dense, slightly moist	6.4	119.9	
		17 30 40			Silty f-m Sand, dark brown, slightly moist, dense	5.0	124.5	
5		18 32 50			Silty f-m Sand, dark brown, slightly moist, very dense	6.7	124.3	
		16 30 44			Silty f-m Sand, dark brown, slightly moist, dense	6.7	126.0	
					Alluvium:			
10		17 34 34		SM	Silty f-m Sand, dark brown, slightly moist, dense trace gravel			
15		30 50-5"			Silty f-c Sand, medium brown, slightly moist, very dense, trace gravel with cobbles			
20		8 22 32			Silty m-c Sand, grey, slightly moist, dense, trace gravel			
					BORING TERMINATED AT 21.5 FEET			
					Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-6 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Undocumented Fill:			
		14 27 47		SM	Silty f-m Sand, dark brown, slightly moist, dense	6.4	132.1	
5		13 37 40			Silty f-m Sand, dark brown, slightly moist, very dense	5.5	119.7	
		7 19 19			Silty f-m Sand, light brown, slightly moist, medium dense	3.2	121.9	
		10 37 50/5		SM	**Alluvium:** Silty f-c Sand, light brown, slightly moist, very dense, possible cobbles	2.7	134.7	
10		13 27 40			m-c Sand, grey, slightly moist, dense, trace gravel			
15		12 42 36			m-c Sand, light brown, slightly moist, very dense, trace gravel			
20		30 50/5			m-c Sand, light brown, slightly moist, very dense, trace gravel & cobbles			
					BORING TERMINATED AT 20 FEET Boring backfilled with spoils No groundwater encountered			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: I-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown, slightly moist			
5					**BORING TERMINATED AT 5 FEET**			
					No groundwater encountered Pipe with sock placed in gravel			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Frontier Enterprises	**DRILLER:**	2R	**LOGGED BY:**	FS
PROJECT NAME:	Rialto	**DRILL METHOD:**	Hollow Stem Auger	**OPERATOR:**	Nick
PROJECT NO.:	2749-CR	**HAMMER:**	140 lbs. - 30 inches	**RIG TYPE:**	CME 75
LOCATION:	Rialto, CA			**DATE:**	5/3/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: I-2 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown, slightly moist			
5					**BORING TERMINATED AT 5 FEET**			
					No groundwater encountered Pipe with sock placed in gravel			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

LABORATORY TEST RESULTS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification
Soils were classified visually in general accordance with the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications by GeoTek are shown on the logs of exploratory borings in Appendix B.

Consolidation/Collapse
Consolidation/collapse testing was performed on selected samples of the site soils according to ASTM Test Method D 4546. The results of this testing are presented in Appendix B.

Direct Shear
Shear testing was performed in a direct shear machine of the strain-control type in general accordance with ASTM Test Method D 3080. The rate of deformation is approximately 0.035 inch per minute. The samples were sheared under varying confining loads in order to determine the coulomb shear strength parameters, angle of internal friction and cohesion. The results of the testing are presented in Appendix B.

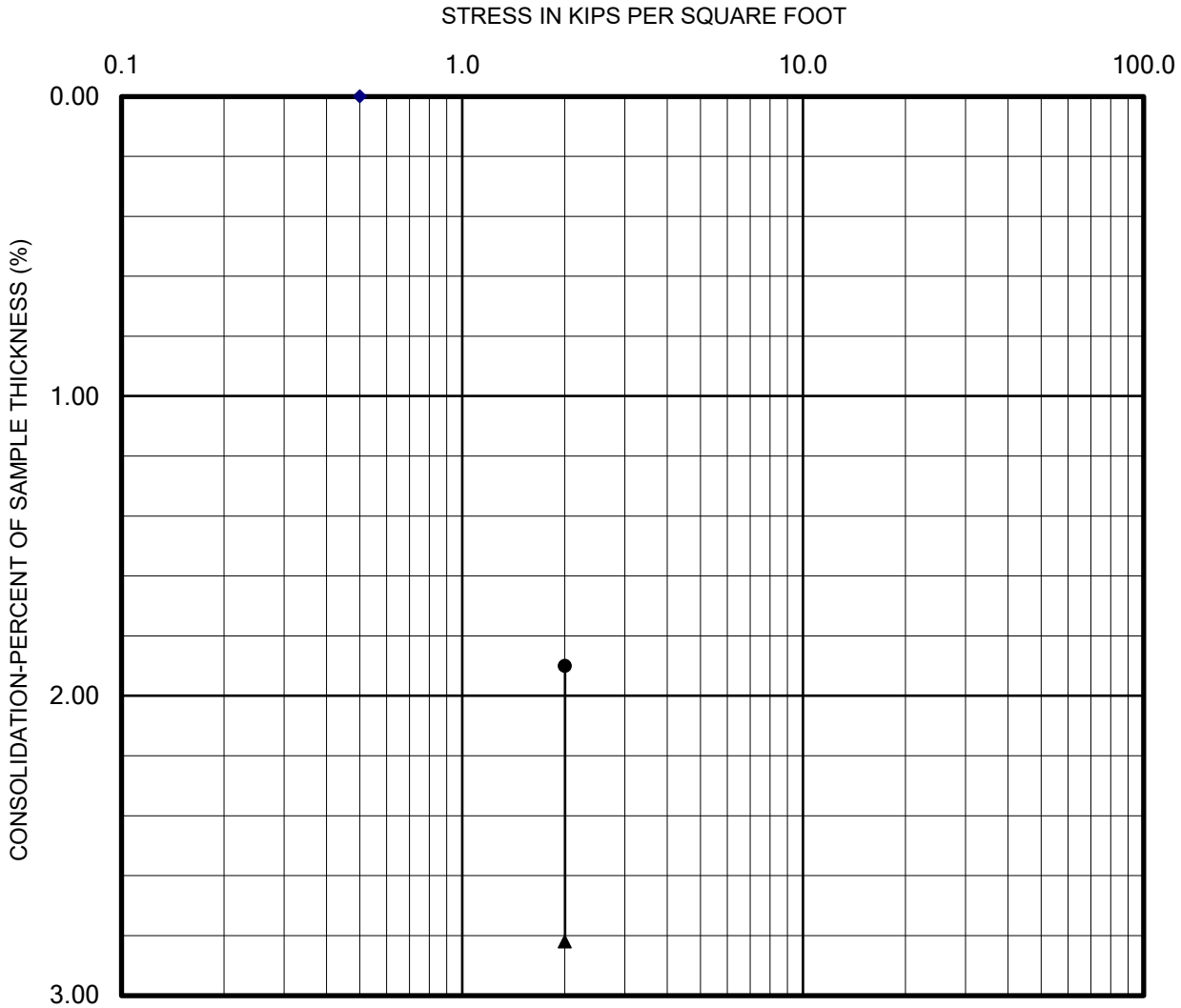
Expansion Index
Expansion Index testing was performed on two representative soil samples. Testing was performed in general accordance with ASTM Test Method D 4829. The results of the testing is provided below.

Boring No.	Depth (ft.)	Soil Type	Expansion Index	Classification
B-1	0-5	Silty Sand	0	Very Low
B-4	0-5	Silty Sand	0	Very Low

Moisture-Density Relationship
Laboratory testing was performed on two representative site samples collected during the recent subsurface exploration. The laboratory maximum dry density and optimum moisture content for the samples tested were determined in general accordance with test method ASTM Test Procedure D 1557. The results are included in Appendix B.

Sulfate Content, Resistivity and Chloride Content
Testing to determine the water-soluble sulfate content, resistivity testing and the chloride content was performed by others. The results of the testing are provided below and in Appendix B.

Boring No.	Depth (ft.)	pH ASTM G51	Chloride ASTM D4327 (ppm)	Sulfate ASTM D4327 (% by weight)	Resistivity ASTM G187 (ohm-cm)
B-1	0-5	7.9	13.5	0.0052	3,015
B-4	0-5	8.1	5.2	0.0018	6,700



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

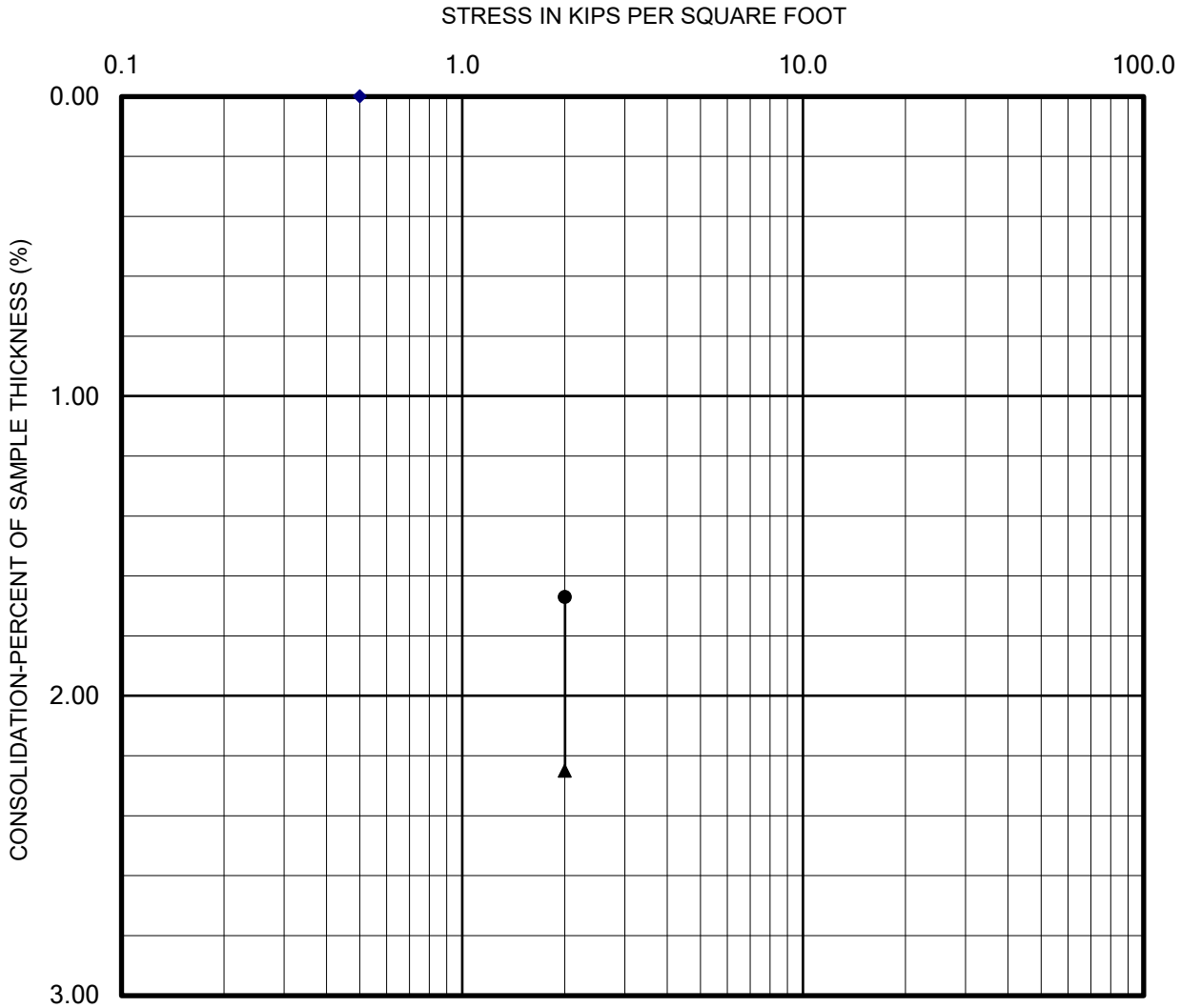
CHECKED BY: RJ	Lab: Corona
PROJECT NO.: 2749-CR	Date: 5-19-21

COLLAPSE REPORT

Sample: B-2 @ 6 feet

Rialto, California

Plate B-1



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

CHECKED BY: RJ	Lab: Corona
PROJECT NO.: 2749-CR	Date: 5-19-21

COLLAPSE REPORT

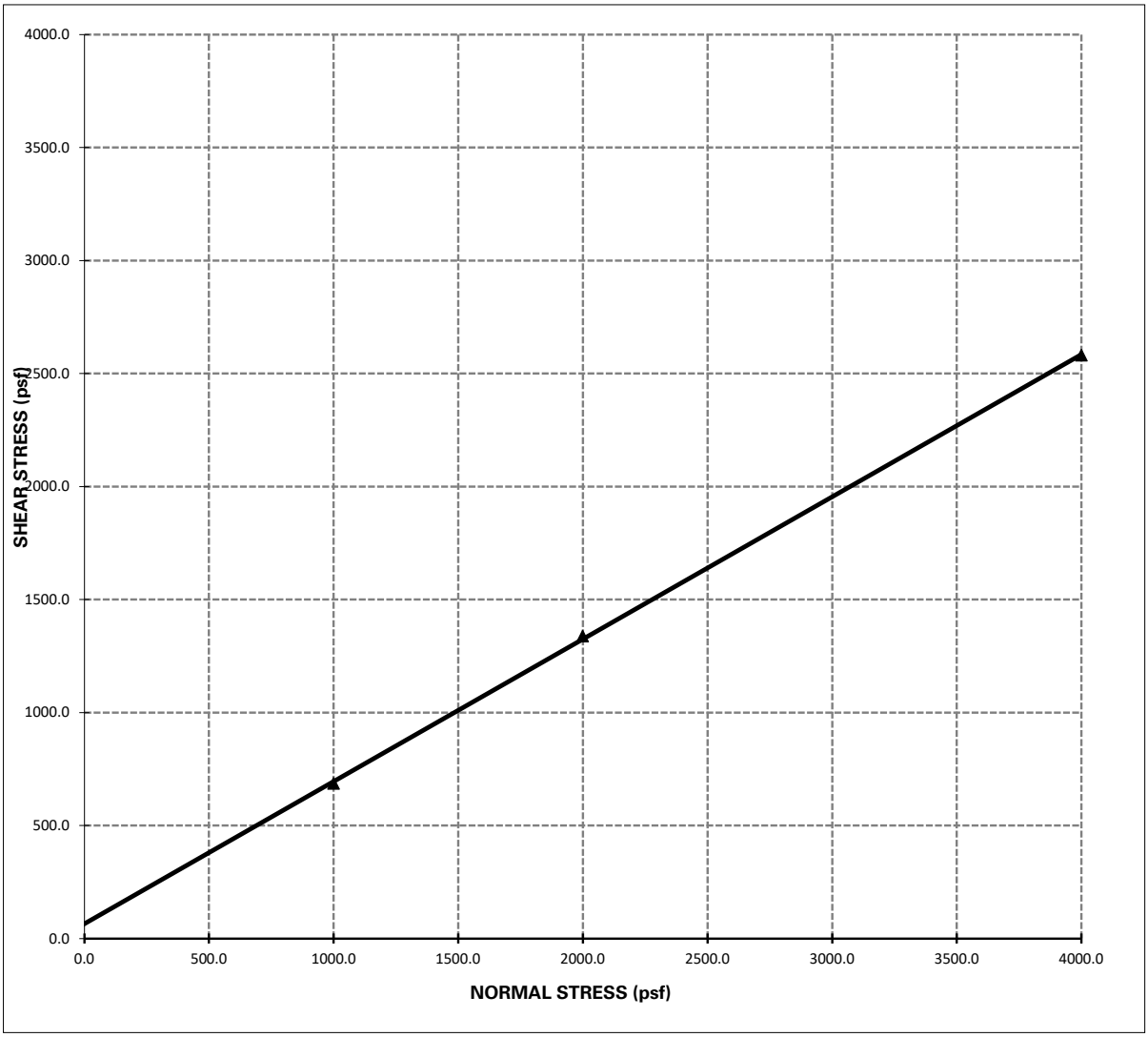
Sample: B-4 @ 6 feet

Rialto, California

Plate B-2

DIRECT SHEAR TEST

Project Name:	Frontier Enterprises	***Sample Location:***	B1 @ 0-5'
Project Number:	2749-CR	***Date Tested:***	5/18/2021



Shear Strength: Φ = 32 ° , C = 65 psf

Notes: 1 - The soil specimen used in the shear box was a ring sample remolded to approximately 90% relative compaction from a bulk sample collected during the field investigation.

2 - The above reflect direct shear strength at saturated conditions.

3 - The tests were run at a shear rate of 0.035 in/min.

GEOTEK

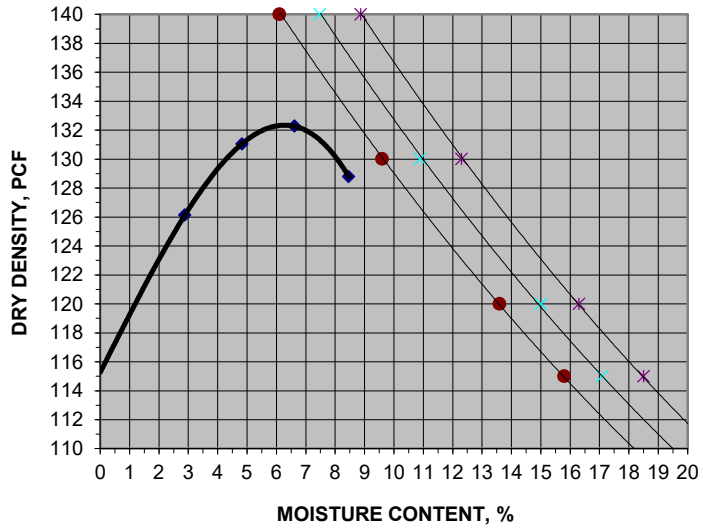
MOISTURE/DENSITY RELATIONSHIP

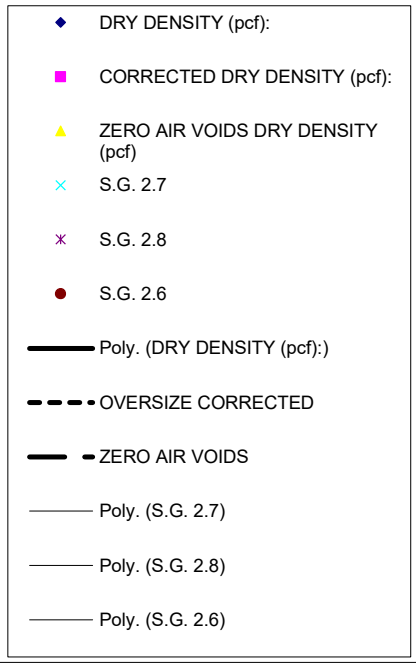
Client:	Frontier Enterprises	**Job No.:**	2749-CR
Project:	N Acacia & Foothill	**Lab No.:**	Corona
Location:	Rialto		
Material Type:	Brown Silty Sand w/ Gravel		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B1 @ 1-5'		
	-		
Sampled By:	FS	**Date Sampled:**	5/5/2021
Received By:	RJ	**Date Received:**	5/5/2021
Tested By:	RL	**Date Tested:**	5/17/2021
Reviewed By:	RJ	**Date Reviewed:**	5/18/2021

Test Procedure: ASTM D1557 **Method:** B

Oversized Material (%): 17.4 **Correction Required:** ■ yes ☐ no

MOISTURE/DENSITY RELATIONSHIP CURVE





MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	132.5	**@ Optimum Moisture, %**	6.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

GEOTEK

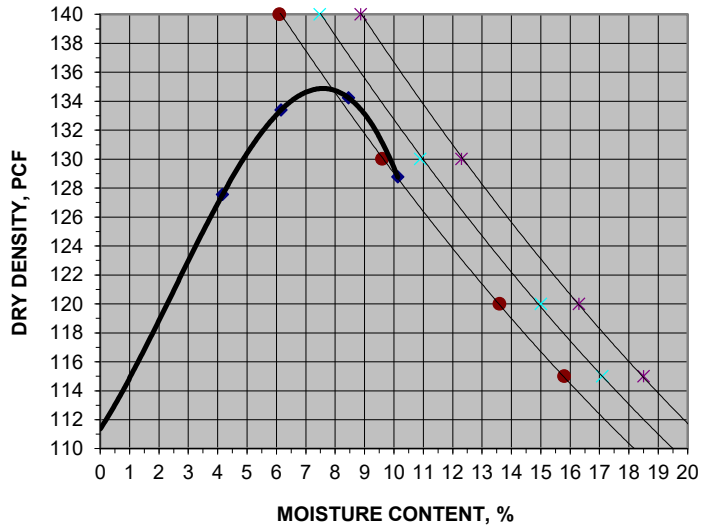
MOISTURE/DENSITY RELATIONSHIP

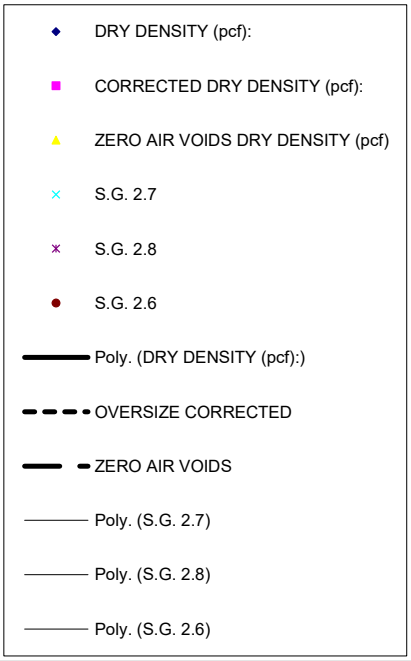
Client:	Frontier Enterprises	**Job No.:**	2749-CR
Project:	N Acacia & Foothill	**Lab No.:**	Corona
Location:	Rialto		
Material Type:	Brown Silty Sand w/ Gravel		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B4 @ 0-5'		
	-		
Sampled By:	FS	**Date Sampled:**	5/5/2021
Received By:	RJ	**Date Received:**	5/5/2021
Tested By:	RL	**Date Tested:**	5/17/2021
Reviewed By:	RJ	**Date Reviewed:**	5/18/2021

Test Procedure: ASTM D1557 **Method:** B

Oversized Material (%): 19.1 **Correction Required:** ■ yes ☐ no

MOISTURE/DENSITY RELATIONSHIP CURVE





MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	135.0	**@ Optimum Moisture, %**	7.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

Results Only Soil Testing for Frontier Enterprises

May 18, 2021
Prepared for:

Anna Scott
GeoTek, Inc.
1548 North Maple Street
Corona, CA 92280
ascott@geotekusa.com

Project X Job#: S210514B
Client Job or PO#: 2749-CR

Respectfully Submitted,



Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com



Soil Analysis Lab Results

Client: GeoTek, Inc.
Job Name: Frontier Enterprises
Client Job Number: 2749-CR
Project X Job Number: S210514B
May 18, 2021

	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM D4972	ASTM G200	SM 4500-S2-D	ASTM D4327	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D4327	ASTM D4327
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**	**Redox**	**Sulfide** S^{2-}	**Nitrate** NO_3^-	**Ammonium** NH_4^+	**Lithium** Li^+	**Sodium** Na^+	**Potassium** K^+	**Magnesium** Mg^{2+}	**Calcium** Ca^{2+}	**Fluoride** F_2^{--}	**Phosphate** PO_4^{3-}
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ohm-cm)	(Ohm-cm)		(mV)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
B-1	0-5	51.9	0.0052	13.5	0.0014	14,740	3,015	7.9	191	<0.01	177.1	9.0	ND	42.2	3.5	41.8	220.5	1.2	4.4
B-4	0-5	17.7	0.0018	5.2	0.0005	57,620	6,700	8.1	170	<0.01	33.2	10.6	0.01	59.5	2.9	30.3	175.2	1.6	3.1

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract
PPM = mg/kg (soil) = mg/L (Liquid)

APPENDIX C

INFILTRATION TEST DATA

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD RIALTO, Job No.: 2749-CR.

Test Hole No.: E Tested By: DVG, Date: 5/3,4/2021.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL 5/3/2021
	742		60	20				BEGIN 5/4/2021
	807	25			6	14		1ST 25 MIN.
	809		60	20				
	834	25			6 1/2	13 1/2		2ND 25 MIN.
	836		60	20				
	906	30			4 1/2	15 1/2		1ST 30 MIN.
	908		60	20				
	938	30			4 3/4	15 1/4		2ND 30 MIN.
	940		60	20				
	1010	30			5	15		3RD 30 MIN.
	1012		60	20				
	1042	30			5 1/2	14 1/2		4TH 30 MIN.
	1044		60	20				
	1114	30			5 3/4	14 1/4		5TH 30 MIN
	1116		60	20				
	1146	30			5 3/4	14 1/4		6TH 30 MIN.
	1148		60	20				
	1218	30			6	14		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO, Job No.: 2749-CR.

Test Hole No.: E, Tested By: DVG, Date: 5/3,4/2021.

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	1220		60	20				
	1250	30			6 1/4	13 3/4		8TH 30 MIN.
	1252		60	20				
	122	30			6 1/4	13 3/4		9TH 30 MIN.
	124		60	20				
	154	30			6 1/2	13 1/2		10TH 30 MIN.
	156		60	20				
	226	30			6 1/2	13 1/2		11TH 30 MIN.
	228		60	20				
	258	30			6 1/2	13 1/2		12TH 30 MIN

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO **Job No.:** 2744-CR

Test Hole No.: W **Tested By:** DVG **Date:** 5/3, 4/2021

Depth of Hole As Drilled: 60" **Before Test:** 60" **After Test:** 60"

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL 5/3/2021
	735		60	20				BEGIN 5/4/2021
	800	25			6 1/2	13 1/2		1ST 25 MIN.
	802		60	20				
	827	25			7	13		2ND 25 MIN.
	829		60	20				
	859	30			5	15		1ST 30 MIN.
	901		60	20				
	931	30			5 1/4	14 3/4		2ND 30 MIN.
	933		60	20				
	1003	30			5 1/2	14 1/2		3RD 30 MIN.
	1005		60	20				
	1035	30			5 3/4	14 1/4		4TH 30 MIN.
	1037		60	20				
	1107	30			6	14		5TH 30 MIN.
	1109		60	20				
	1139	30			6	14		6TH 30 MIN.
	1141		60	20				
	1211	30			6 1/4	13 3/4		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 612 E. FOOTHILL BLVD. RIALTO, Job No.: 2749-CR

Test Hole No.: W, Tested By: DVG, Date: 5/3,4/2021

Depth of Hole As Drilled: 60" Before Test: 60" After Test: 60"

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	1213 / 1243	30	60	20	6 1/2	13 1/2		8TH 30 MIN.
	1245 / 115	30	60	20	6 1/2	13 1/2		9TH 30 MIN.
	117 / 147	30	60	20	6 3/4	13 1/4		10TH 30 MIN.
	149 / 219	30	60	20	7	13		11TH 30 MIN.
	221 / 251	30	60	20	7	13		12TH 30 MIN.

Client:	**Frontier Enterprises**
Project:	**Rialto**
Project No:	**2749-CR**
Date:	**5/4/2021**

Boring No. **I-1**

Percolation Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	53.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	6.5
$\Delta H = \Delta D = H_O - H_F$ =	13.5
$H_{avg} = (H_O+H_F)/2$ =	13.25

I_t = 3.54 **Inches per Hour**

GEOTEK

Client:	**Frontier Enterprises**
Project:	**Rialto**
Project No:	**2749-CR**
Date:	**5/4/2021**

Boring No. **I-2**

Percolation Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	53
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	7
$\Delta H = \Delta D = H_O - H_F$ =	13
$H_{avg} = (H_O+H_F)/2$ =	13.5

I_t = 3.35 **Inches per Hour**

GEOTEK

APPENDIX D

SEISMIC SETTLEMENT ANALYSIS

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\2701 to 2750\2749CR Frontier Enterprises N Acacia Ave & E Foothill Rialto\Geotechnical and Infiltration Evaluation\seismic input.liq
Title: 2749-CR
Subtitle: Rialto

Surface Elev.=
Hole No.=B-1
Depth of Hole= 50.00 ft
Water Table during Earthquake= 100.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 1.04 g
Earthquake Magnitude= 7.39

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=50.00 ft
Water Table during Earthquake= 100.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=1.04 g
Earthquake Magnitude=7.39
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	34.00	135.00	15.00
7.00	52.00	130.00	15.00
10.00	26.00	130.00	15.00
15.00	30.00	130.00	15.00
20.00	65.00	135.00	15.00
25.00	100.00	135.00	15.00
30.00	100.00	135.00	15.00
35.00	80.00	135.00	15.00
40.00	65.00	135.00	15.00
45.00	19.00	130.00	50.00
50.00	80.00	135.00	15.00

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.98 in.
Total Settlement of Saturated and Unsaturated Sands=0.98 in.
Differential Settlement=0.488 to 0.644 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.52	0.67	5.00	0.00	0.98	0.98
1.00	0.52	0.67	5.00	0.00	0.97	0.97
2.00	0.52	0.67	5.00	0.00	0.97	0.97
3.00	0.52	0.67	5.00	0.00	0.97	0.97
4.00	0.52	0.67	5.00	0.00	0.97	0.97
5.00	0.52	0.67	5.00	0.00	0.96	0.96
6.00	0.52	0.66	5.00	0.00	0.96	0.96
7.00	0.52	0.66	5.00	0.00	0.95	0.95
8.00	0.52	0.66	5.00	0.00	0.94	0.94
9.00	0.52	0.66	5.00	0.00	0.92	0.92
10.00	0.52	0.66	5.00	0.00	0.91	0.91
11.00	0.52	0.66	5.00	0.00	0.89	0.89
12.00	0.52	0.65	5.00	0.00	0.86	0.86
13.00	0.52	0.65	5.00	0.00	0.83	0.83
14.00	0.52	0.65	5.00	0.00	0.79	0.79
15.00	0.52	0.65	5.00	0.00	0.74	0.74
16.00	0.52	0.65	5.00	0.00	0.70	0.70
17.00	0.52	0.65	5.00	0.00	0.66	0.66
18.00	0.52	0.65	5.00	0.00	0.63	0.63
19.00	0.52	0.64	5.00	0.00	0.61	0.61
20.00	0.52	0.64	5.00	0.00	0.60	0.60
21.00	0.52	0.64	5.00	0.00	0.59	0.59
22.00	0.52	0.64	5.00	0.00	0.57	0.57
23.00	0.52	0.64	5.00	0.00	0.56	0.56

24.00	0.52	0.64	5.00	0.00	0.55	0.55
25.00	0.52	0.63	5.00	0.00	0.54	0.54
26.00	0.52	0.63	5.00	0.00	0.52	0.52
27.00	0.51	0.63	5.00	0.00	0.50	0.50
28.00	0.51	0.63	5.00	0.00	0.49	0.49
29.00	0.51	0.63	5.00	0.00	0.47	0.47
30.00	0.50	0.63	5.00	0.00	0.45	0.45
31.00	0.50	0.62	5.00	0.00	0.43	0.43
32.00	0.50	0.62	5.00	0.00	0.41	0.41
33.00	0.50	0.61	5.00	0.00	0.39	0.39
34.00	0.49	0.60	5.00	0.00	0.37	0.37
35.00	0.49	0.60	5.00	0.00	0.35	0.35
36.00	0.49	0.59	5.00	0.00	0.33	0.33
37.00	0.48	0.59	5.00	0.00	0.31	0.31
38.00	0.48	0.58	5.00	0.00	0.30	0.30
39.00	0.48	0.58	5.00	0.00	0.28	0.28
40.00	0.47	0.57	5.00	0.00	0.27	0.27
41.00	0.47	0.57	5.00	0.00	0.25	0.25
42.00	0.47	0.56	5.00	0.00	0.23	0.23
43.00	0.47	0.55	5.00	0.00	0.21	0.21
44.00	0.46	0.55	5.00	0.00	0.18	0.18
45.00	0.33	0.54	5.00	0.00	0.13	0.13
46.00	0.46	0.54	5.00	0.00	0.08	0.08
47.00	0.46	0.53	5.00	0.00	0.05	0.05
48.00	0.45	0.53	5.00	0.00	0.03	0.03
49.00	0.45	0.52	5.00	0.00	0.02	0.02
50.00	0.45	0.52	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

APPENDIX E

GENERAL GRADING GUIDELINES

Multi-Family Development
Rialto, San Bernardino County, California
Project No. 2749-CR

GEOTEK

GENERAL GRADING GUIDELINES

Guidelines presented herein are intended to address general construction procedures for earthwork construction. Specific situations and conditions often arise which cannot reasonably be discussed in general guidelines, when anticipated these are discussed in the text of the report. Often unanticipated conditions are encountered which may necessitate modification or changes to these guidelines. It is our hope that these will assist the contractor to more efficiently complete the project by providing a reasonable understanding of the procedures that would be expected during earthwork and the testing and observation used to evaluate those procedures.

General

Grading should be performed to at least the minimum requirements of governing agencies, Chapters 18 and 33 of the Uniform Building Code, CBC (2019) and the guidelines presented below.

Preconstruction Meeting

A preconstruction meeting should be held prior to site earthwork. Any questions the contractor has regarding our recommendations, general site conditions, apparent discrepancies between reported and actual conditions and/or differences in procedures the contractor intends to use should be brought up at that meeting. The contractor (including the main onsite representative) should review our report and these guidelines in advance of the meeting. Any comments the contractor may have regarding these guidelines should be brought up at that meeting.

Grading Observation and Testing

1. Observation of the fill placement should be provided by our representative during grading. Verbal communication during the course of each day will be used to inform the contractor of test results. The contractor should receive a copy of the "Daily Field Report" indicating results of field density tests that day. If our representative does not provide the contractor with these reports, our office should be notified.
2. Testing and observation procedures are, by their nature, specific to the work or area observed and location of the tests taken, variability may occur in other locations. The contractor is responsible for the uniformity of the grading operations; our observations and test results are intended to evaluate the contractor's overall level of efforts during grading. The contractor's personnel are the only individuals participating in all aspect of site work. Compaction testing and observation should not be considered as relieving the contractor's responsibility to properly compact the fill.
3. Cleanouts, processed ground to receive fill, key excavations, and subdrains should be observed by our representative prior to placing any fill. It will be the contractor's responsibility to notify our representative or office when such areas are ready for observation.

4. Density tests may be made on the surface material to receive fill, as considered warranted by this firm.
5. In general, density tests would be made at maximum intervals of two feet of fill height or every 1,000 cubic yards of fill placed. Criteria will vary depending on soil conditions and size of the fill. More frequent testing may be performed. In any case, an adequate number of field density tests should be made to evaluate the required compaction and moisture content is generally being obtained.
6. Laboratory testing to support field test procedures will be performed, as considered warranted, based on conditions encountered (e.g. change of material sources, types, etc.) Every effort will be made to process samples in the laboratory as quickly as possible and in progress construction projects are our first priority. However, laboratory workloads may cause in delays and some soils may require a **minimum of 48 to 72 hours to complete test procedures**. Whenever possible, our representative(s) should be informed in advance of operational changes that might result in different source areas for materials.
7. Procedures for testing of fill slopes are as follows:
    a) Density tests should be taken periodically during grading on the flat surface of the fill, three to five feet horizontally from the face of the slope.
    b) If a method other than over building and cutting back to the compacted core is to be employed, slope compaction testing during construction should include testing the outer six inches to three feet in the slope face to determine if the required compaction is being achieved.
8. Finish grade testing of slopes and pad surfaces should be performed after construction is complete.

Site Clearing

1. All vegetation, and other deleterious materials, should be removed from the site. If material is not immediately removed from the site it should be stockpiled in a designated area(s) well outside of all current work areas and delineated with flagging or other means. Site clearing should be performed in advance of any grading in a specific area.
2. Efforts should be made by the contractor to remove all organic or other deleterious material from the fill, as even the most diligent efforts may result in the incorporation of some materials. This is especially important when grading is occurring near the natural grade. All equipment operators should be aware of these efforts. Laborers may be required as root pickers.
3. Nonorganic debris or concrete may be placed in deeper fill areas provided the procedures used are observed and found acceptable by our representative.

Treatment of Existing Ground

1. Following site clearing, all surficial deposits of alluvium and colluvium as well as weathered or creep effected bedrock, should be removed unless otherwise specifically indicated in the text of this report.
2. In some cases, removal may be recommended to a specified depth (e.g. flat sites where partial alluvial removals may be sufficient). The contractor should not exceed these depths unless directed otherwise by our representative.
3. Groundwater existing in alluvial areas may make excavation difficult. Deeper removals than indicated in the text of the report may be necessary due to saturation during winter months.
4. Subsequent to removals, the natural ground should be processed to a depth of six inches, moistened to near optimum moisture conditions and compacted to fill standards.
5. Exploratory back hoe or dozer trenches still remaining after site removal should be excavated and filled with compacted fill if they can be located.

Fill Placement

1. Unless otherwise indicated, all site soil and bedrock may be reused for compacted fill; however, some special processing or handling may be required (see text of report).
2. Material used in the compacting process should be evenly spread, moisture conditioned, processed, and compacted in thin lifts six (6) to eight (8) inches in compacted thickness to obtain a uniformly dense layer. The fill should be placed and compacted on a nearly horizontal plane, unless otherwise found acceptable by our representative.
3. If the moisture content or relative density varies from that recommended by this firm, the contractor should rework the fill until it is in accordance with the following:
    a) Moisture content of the fill should be at or above optimum moisture. Moisture should be evenly distributed without wet and dry pockets. Pre-watering of cut or removal areas should be considered in addition to watering during fill placement, particularly in clay or dry surficial soils. The ability of the contractor to obtain the proper moisture content will control production rates.
    b) Each six-inch layer should be compacted to at least 90 percent of the maximum dry density in compliance with the testing method specified by the controlling governmental agency. In most cases, the testing method is ASTM Test Designation D 1557.
4. Rock fragments less than eight inches in diameter may be utilized in the fill, provided:
    a) They are not placed in concentrated pockets;
    b) There is a sufficient percentage of fine-grained material to surround the rocks;
    c) The distribution of the rocks is observed by, and acceptable to, our representative.

5. Rocks exceeding eight (8) inches in diameter should be taken off site, broken into smaller fragments, or placed in accordance with recommendations of this firm in areas designated suitable for rock disposal. On projects where significant large quantities of oversized materials are anticipated, alternate guidelines for placement may be included. If significant oversize materials are encountered during construction, these guidelines should be requested.
6. In clay soil, dry or large chunks or blocks are common. If in excess of eight (8) inches minimum dimension, then they are considered as oversized. Sheepsfoot compactors or other suitable methods should be used to break up blocks. When dry, they should be moisture conditioned to provide a uniform condition with the surrounding fill.

Slope Construction

1. The contractor should obtain a minimum relative compaction of 90 percent out to the finished slope face of fill slopes. This may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment.
2. Slopes trimmed to the compacted core should be overbuilt by at least three (3) feet with compaction efforts out to the edge of the false slope. Failure to properly compact the outer edge results in trimming not exposing the compacted core and additional compaction after trimming may be necessary.
3. If fill slopes are built "at grade" using direct compaction methods, then the slope construction should be performed so that a constant gradient is maintained throughout construction. Soil should not be "spilled" over the slope face nor should slopes be "pushed out" to obtain grades. Compaction equipment should compact each lift along the immediate top of slope. Slopes should be back rolled or otherwise compacted at approximately every 4 feet vertically as the slope is built.
4. Corners and bends in slopes should have special attention during construction as these are the most difficult areas to obtain proper compaction.
5. Cut slopes should be cut to the finished surface. Excessive undercutting and smoothing of the face with fill may necessitate stabilization.

UTILITY TRENCH CONSTRUCTION AND BACKFILL

Utility trench excavation and backfill is the contractors responsibility. The geotechnical consultant typically provides periodic observation and testing of these operations. While efforts are made to make sufficient observations and tests to verify that the contractors' methods and procedures are adequate to achieve proper compaction, it is typically impractical to observe all backfill procedures. As such, it is critical that the contractor use consistent backfill procedures.

Compaction methods vary for trench compaction and experience indicates many methods can be successful. However, procedures that "worked" on previous projects may or may not prove effective on a given site. The contractor(s) should outline the procedures proposed, so that we may discuss them **prior** to construction. We will offer comments based on our knowledge of site conditions and experience.

1. Utility trench backfill in slopes, structural areas, in streets and beneath flat work or hardscape should be brought to at least optimum moisture and compacted to at least 90 percent of the laboratory standard. Soil should be moisture conditioned prior to placing in the trench.
2. Flooding and jetting are not typically recommended or acceptable for native soils. Flooding or jetting may be used with select sand having a Sand Equivalent (SE) of 30 or higher. This is typically limited to the following uses:
   a) shallow (12 + inches) under slab interior trenches and,
   b) as bedding in pipe zone.

   The water should be allowed to dissipate prior to pouring slabs or completing trench compaction.
3. Care should be taken not to place soils at high moisture content within the upper three feet of the trench backfill in street areas, as overly wet soils may impact subgrade preparation. Moisture may be reduced to 2% below optimum moisture in areas to be paved within the upper three feet below sub grade.
4. Sand backfill should not be allowed in exterior trenches adjacent to and within an area extending below a 1:1 projection from the outside bottom edge of a footing, unless it is similar to the surrounding soil.
5. Trench compaction testing is generally at the discretion of the geotechnical consultant. Testing frequency will be based on trench depth and the contractors procedures. A probing rod would be used to assess the consistency of compaction between tested areas and untested areas. If zones are found that are considered less compact than other areas, this would be brought to the contractors attention.

JOB SAFETY

General

Personnel safety is a primary concern on all job sites. The following summaries are safety considerations for use by all our employees on multi-employer construction sites. On ground personnel are at highest risk of injury and possible fatality on grading construction projects. The company recognizes that construction activities will vary on each site and that job site safety is the contractor's responsibility. However, it is, imperative that all personnel be safety conscious to avoid accidents and potential injury.

In an effort to minimize risks associated with geotechnical testing and observation, the following precautions are to be implemented for the safety of our field personnel on grading and construction projects.

1. Safety Meetings: Our field personnel are directed to attend the contractor's regularly scheduled safety meetings.
2. Safety Vests: Safety vests are provided for and are to be worn by our personnel while on the job site.
3. Safety Flags: Safety flags are provided to our field technicians; one is to be affixed to the vehicle when on site, the other is to be placed atop the spoil pile on all test pits.

In the event that the contractor's representative observes any of our personnel not following the above, we request that it be brought to the attention of our office.

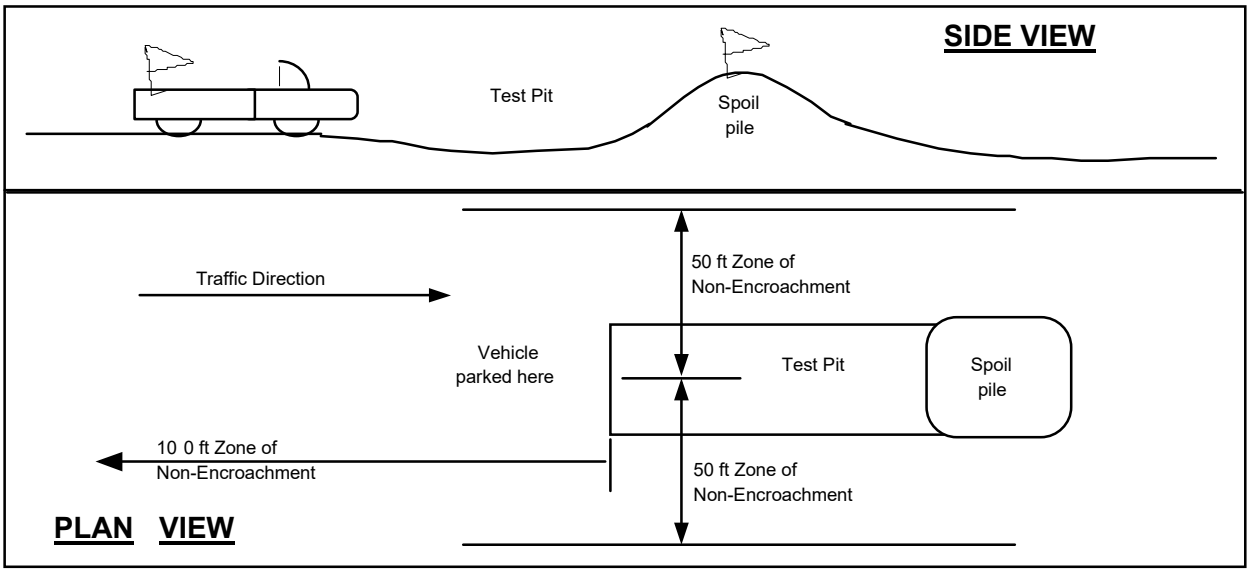
Test Pits Location, Orientation and Clearance

The technician is responsible for selecting test pit locations. The primary concern is the technician's safety. However, it is necessary to take sufficient tests at various locations to obtain a representative sampling of the fill. As such, efforts will be made to coordinate locations with the grading contractors authorized representatives (e.g. dump man, operator, supervisor, grade checker, etc.), and to select locations following or behind the established traffic pattern, preferably outside of current traffic. The contractors authorized representative should direct excavation of the pit and safety during the test period. Again, safety is the paramount concern.

Test pits should be excavated so that the spoil pile is placed away from oncoming traffic. The technician's vehicle is to be placed next to the test pit, opposite the spoil pile. This necessitates that the fill be maintained in a drivable condition. Alternatively, the contractor may opt to park a piece of equipment in front of test pits, particularly in small fill areas or those with limited access.

A zone of non-encroachment should be established for all test pits (see diagram below). No grading equipment should enter this zone during the test procedure. The zone should extend outward to the sides approximately 50 feet from the center of the test pit and 100 feet in the direction of traffic flow. This zone is established both for safety and to avoid excessive ground vibration, which typically decreases test results.

TEST PIT SAFETY PLAN



Slope Tests

When taking slope tests, the technician should park their vehicle directly above or below the test location on the slope. The contractor's representative should effectively keep all equipment at a safe operation distance (e.g. 50 feet) away from the slope during testing.

The technician is directed to withdraw from the active portion of the fill as soon as possible following testing. The technician's vehicle should be parked at the perimeter of the fill in a highly visible location.

Trench Safety

It is the contractor's responsibility to provide safe access into trenches where compaction testing is needed. Trenches for all utilities should be excavated in accordance with CAL-OSHA and any other applicable safety standards. Safe conditions will be required to enable compaction testing of the trench backfill.

All utility trench excavations in excess of 5 feet deep, which a person enters, are to be shored or laid back. Trench access should be provided in accordance with OSHA standards. Our personnel are directed not to enter any trench by being lowered or "riding down" on the equipment.

Our personnel are directed not to enter any excavation which;

1. is 5 feet or deeper unless shored or laid back,
2. exit points or ladders are not provided,
3. displays any evidence of instability, has any loose rock or other debris which could fall into the trench, or

4. displays any other evidence of any unsafe conditions regardless of depth.

If the contractor fails to provide safe access to trenches for compaction testing, our company policy requires that the soil technician withdraws and notifies their supervisor. The contractors representative will then be contacted in an effort to effect a solution. All backfill not tested due to safety concerns or other reasons is subject to reprocessing and/or removal.

Procedures

In the event that the technician's safety is jeopardized or compromised as a result of the contractor's failure to comply with any of the above, the technician is directed to inform both the developer's and contractor's representatives. If the condition is not rectified, the technician is required, by company policy, to immediately withdraw and notify their supervisor. The contractor's representative will then be contacted in an effort to effect a solution. No further testing will be performed until the situation is rectified. Any fill placed in the interim can be considered unacceptable and subject to reprocessing, recompaction or removal.

In the event that the soil technician does not comply with the above or other established safety guidelines, we request that the contractor bring this to technicians attention and notify our project manager or office. Effective communication and coordination between the contractors' representative and the field technician(s) is strongly encouraged in order to implement the above safety program and safety in general.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

Appendix G

Noise Measurements and Calculations

NM1

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 75.7 - 2021/07/28 09:28:35
- Level Range : 40-100
- SEL : 90.2
- Leq : 60.7
-

No.s	Date Time	(dB)				
1	2021/07/28 09:23:19	53.1	50.9	51.4	52.6	59.5
6	2021/07/28 09:23:34	63.3	61.4	59.6	59.6	54.5
11	2021/07/28 09:23:49	58.9	54.5	56.7	59.7	53.6
16	2021/07/28 09:24:04	52.6	56.9	55.5	59.3	60.0
21	2021/07/28 09:24:19	62.5	63.6	62.9	65.2	61.1
26	2021/07/28 09:24:34	61.7	60.2	57.8	54.4	61.3
31	2021/07/28 09:24:49	62.7	64.2	63.0	64.9	62.0
36	2021/07/28 09:25:04	67.3	62.8	59.0	59.6	59.8
41	2021/07/28 09:25:19	58.4	54.7	59.3	60.1	54.9
46	2021/07/28 09:25:34	52.4	51.9	62.4	65.2	58.6
51	2021/07/28 09:25:49	60.0	60.8	64.1	59.7	56.5
56	2021/07/28 09:26:04	58.0	55.1	51.5	48.4	50.3
61	2021/07/28 09:26:19	48.6	47.9	48.3	56.9	64.8
66	2021/07/28 09:26:34	64.1	62.0	55.8	51.2	53.9
71	2021/07/28 09:26:49	55.6	58.8	54.4	49.7	45.9
76	2021/07/28 09:27:04	45.2	46.9	48.7	56.7	61.0
81	2021/07/28 09:27:19	60.0	55.9	50.5	53.8	53.2
86	2021/07/28 09:27:34	49.7	51.7	59.5	63.5	63.5
91	2021/07/28 09:27:49	64.0	61.7	61.3	54.7	50.0
96	2021/07/28 09:28:04	49.5	47.8	47.2	50.0	50.7
101	2021/07/28 09:28:19	58.5	57.9	52.0	51.4	63.4
106	2021/07/28 09:28:34	69.6	60.4	59.5	66.0	60.3
111	2021/07/28 09:28:49	55.3	55.7	61.3	61.3	62.4
116	2021/07/28 09:29:04	61.5	60.3	58.0	57.3	57.1
121	2021/07/28 09:29:19	55.2	52.2	59.6	65.3	62.1
126	2021/07/28 09:29:34	61.5	56.1	51.6	46.8	45.0
131	2021/07/28 09:29:49	44.8	45.7	46.6	50.7	50.8
136	2021/07/28 09:30:04	54.3	58.5	59.9	60.9	62.7
141	2021/07/28 09:30:19	63.1	61.7	62.7	67.1	66.1
146	2021/07/28 09:30:34	68.3	64.3	65.8	62.9	62.7
151	2021/07/28 09:30:49	59.7	57.9	57.8	58.9	56.7
156	2021/07/28 09:31:04	56.2	56.9	58.6	60.4	61.3
161	2021/07/28 09:31:19	59.5	64.7	60.6	57.7	59.5
166	2021/07/28 09:31:34	60.8	59.5	59.3	60.6	57.2
171	2021/07/28 09:31:49	54.8	61.5	62.6	64.2	66.6
176	2021/07/28 09:32:04	61.7	59.8	54.8	55.3	56.4
181	2021/07/28 09:32:19	56.3	62.3	63.2	58.7	60.1
186	2021/07/28 09:32:34	59.8	57.8	55.7	59.6	69.4
191	2021/07/28 09:32:49	69.1	63.3	61.1	58.0	56.7
196	2021/07/28 09:33:04	56.0	56.9	59.3	57.9	59.3
201	2021/07/28 09:33:19	58.4	58.8	60.9	66.5	59.0
206	2021/07/28 09:33:34	56.2	59.8	62.9	60.6	59.3
211	2021/07/28 09:33:49	57.2	58.1	55.5	52.9	53.3
216	2021/07/28 09:34:04	52.9	56.0	58.3	57.0	62.4
221	2021/07/28 09:34:19	64.0	62.8	60.1	56.6	60.9
226	2021/07/28 09:34:34	63.0	59.4	58.4	58.2	57.5
231	2021/07/28 09:34:49	57.8	58.0	58.2	57.0	57.6
236	2021/07/28 09:35:04	58.2	58.4	58.6	60.2	61.9
241	2021/07/28 09:35:19	62.0	61.1	62.6	66.2	62.8
246	2021/07/28 09:35:34	62.7	62.5	64.1	65.0	66.6
251	2021/07/28 09:35:49	65.3	62.7	65.3	60.2	58.4
256	2021/07/28 09:36:04	57.7	57.3	60.7	59.6	59.9
261	2021/07/28 09:36:19	58.9	56.9	60.4	58.2	54.1
266	2021/07/28 09:36:34	53.4	53.6	52.9	54.4	55.8
271	2021/07/28 09:36:49	55.8	57.9	54.6	56.3	57.8
276	2021/07/28 09:37:04	55.0	60.0	63.6	56.3	54.0
281	2021/07/28 09:37:19	53.4	53.3	54.6	58.4	57.1
286	2021/07/28 09:37:34	60.2	59.2	64.1	66.6	60.2
291	2021/07/28 09:37:49	53.3	55.2	57.3	65.5	64.8
296	2021/07/28 09:38:04	60.1	54.4	52.1	52.7	55.7

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 57.8 - 2021/07/28 08:43:49
- Level Range : 40-100
- SEL : 77.4
- Leq : 47.9
-

No.s	Date Time	(dB)				
1	2021/07/28 08:37:20	50.7	50.2	49.3	48.3	45.6
6	2021/07/28 08:37:35	44.7	45.7	46.9	46.5	44.1
11	2021/07/28 08:37:50	44.4	44.3	46.1	47.2	50.3
16	2021/07/28 08:38:05	51.2	45.6	44.0	43.0	42.7
21	2021/07/28 08:38:20	43.0	42.5	48.9	53.6	48.0
26	2021/07/28 08:38:35	49.8	49.3	46.3	47.0	47.1
31	2021/07/28 08:38:50	47.3	48.6	48.8	48.4	43.4
36	2021/07/28 08:39:05	43.4	43.4	44.8	44.8	46.2
41	2021/07/28 08:39:20	47.1	47.6	47.8	46.7	46.8
46	2021/07/28 08:39:35	46.5	45.2	46.8	47.2	51.6
51	2021/07/28 08:39:50	52.1	52.8	50.8	49.6	49.9
56	2021/07/28 08:40:05	48.5	48.4	47.7	45.3	48.6
61	2021/07/28 08:40:20	47.6	43.6	47.9	50.2	50.2
66	2021/07/28 08:40:35	48.8	50.9	51.5	52.0	49.9
71	2021/07/28 08:40:50	48.1	45.4	43.5	42.6	44.0
76	2021/07/28 08:41:05	42.9	42.2	42.8	42.9	43.2
81	2021/07/28 08:41:20	43.7	51.1	49.1	49.7	46.1
86	2021/07/28 08:41:35	44.4	46.0	47.5	48.0	46.0
91	2021/07/28 08:41:50	48.7	50.9	49.0	46.5	45.4
96	2021/07/28 08:42:05	44.2	42.9	43.1	42.5	41.4
101	2021/07/28 08:42:20	41.5	42.0	41.6	43.2	46.3
106	2021/07/28 08:42:35	47.9	51.1	52.1	48.5	50.3
111	2021/07/28 08:42:50	46.4	54.0	51.8	49.8	48.0
116	2021/07/28 08:43:05	47.6	53.2	50.1	48.2	49.0
121	2021/07/28 08:43:20	43.6	49.2	48.4	48.4	47.6
126	2021/07/28 08:43:35	48.7	48.4	50.4	55.4	57.3
131	2021/07/28 08:43:50	52.7	49.3	52.3	53.2	53.7
136	2021/07/28 08:44:05	50.7	50.1	49.4	50.1	49.9
141	2021/07/28 08:44:20	49.2	51.2	54.3	53.4	49.6
146	2021/07/28 08:44:35	49.4	51.3	48.9	47.8	49.9
151	2021/07/28 08:44:50	50.4	54.6	51.8	50.2	52.4
156	2021/07/28 08:45:05	51.8	50.9	51.0	50.5	49.2
161	2021/07/28 08:45:20	49.2	48.6	49.1	48.7	48.2
166	2021/07/28 08:45:35	48.4	48.6	49.6	48.8	48.8
171	2021/07/28 08:45:50	52.8	48.9	48.5	48.7	48.5
176	2021/07/28 08:46:05	48.4	47.3	45.9	43.8	43.9
181	2021/07/28 08:46:20	44.7	46.1	44.9	43.2	43.0
186	2021/07/28 08:46:35	43.2	43.2	43.3	42.6	43.5
191	2021/07/28 08:46:50	42.9	40.4	39.2	40.8	42.3
196	2021/07/28 08:47:05	43.4	46.5	50.3	52.7	49.1
201	2021/07/28 08:47:20	44.1	44.7	49.4	53.1	51.2
206	2021/07/28 08:47:35	46.7	44.1	40.9	41.2	42.5
211	2021/07/28 08:47:50	42.5	42.8	43.1	43.4	43.0
216	2021/07/28 08:48:05	43.1	42.7	43.0	42.2	41.7
221	2021/07/28 08:48:20	40.3	39.4	39.2	40.4	39.7
226	2021/07/28 08:48:35	40.0	41.6	41.5	41.3	47.9
231	2021/07/28 08:48:50	41.3	41.2	44.4	43.2	41.6
236	2021/07/28 08:49:05	41.3	43.2	44.0	43.9	44.0
241	2021/07/28 08:49:20	46.2	53.3	53.0	52.7	48.4
246	2021/07/28 08:49:35	46.6	47.2	46.5	48.6	46.1
251	2021/07/28 08:49:50	43.9	42.7	44.5	44.9	44.2
256	2021/07/28 08:50:05	45.0	44.4	43.8	43.7	42.7
261	2021/07/28 08:50:20	42.3	43.1	43.4	41.5	42.5
266	2021/07/28 08:50:35	43.7	42.4	42.3	42.4	44.3
271	2021/07/28 08:50:50	43.9	44.4	44.7	45.5	45.3
276	2021/07/28 08:51:05	46.6	50.0	48.0	45.7	46.8
281	2021/07/28 08:51:20	46.1	44.4	44.0	45.0	45.8
286	2021/07/28 08:51:35	44.1	43.9	44.4	43.8	44.6
291	2021/07/28 08:51:50	44.7	43.7	43.4	44.0	44.6
296	2021/07/28 08:52:05	43.9	44.9	43.4	43.9	45.3

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 56.3 - 2021/07/28 08:14:16
- Level Range : 40-100
- SEL : 73.3
- Leq : 43.8
-

No.s	Date Time	(dB)				
1	2021/07/28 08:13:15	46.4	44.4	44.0	43.1	50.5
6	2021/07/28 08:13:30	43.6	43.0	42.4	41.7	41.5
11	2021/07/28 08:13:45	42.8	40.7	41.5	41.0	40.0
16	2021/07/28 08:14:00	40.0	46.1	46.6	52.7	50.9
21	2021/07/28 08:14:15	54.1	45.6	48.2	41.4	40.7
26	2021/07/28 08:14:30	39.9	40.0	40.3	41.0	40.9
31	2021/07/28 08:14:45	42.5	43.2	43.8	45.7	44.6
36	2021/07/28 08:15:00	47.7	47.9	49.9	49.6	51.4
41	2021/07/28 08:15:15	47.2	45.1	43.2	42.6	42.6
46	2021/07/28 08:15:30	41.2	41.1	42.0	42.0	42.8
51	2021/07/28 08:15:45	41.3	41.6	42.4	42.7	42.4
56	2021/07/28 08:16:00	41.6	40.9	41.3	41.9	42.0
61	2021/07/28 08:16:15	41.5	41.0	40.5	40.9	41.2
66	2021/07/28 08:16:30	43.0	43.1	43.1	42.4	41.3
71	2021/07/28 08:16:45	41.8	42.1	42.0	40.9	41.5
76	2021/07/28 08:17:00	42.0	41.3	42.6	41.4	40.7
81	2021/07/28 08:17:15	41.0	41.1	42.7	42.4	43.1
86	2021/07/28 08:17:30	43.0	43.4	42.9	42.5	41.9
91	2021/07/28 08:17:45	41.8	43.7	44.1	43.7	43.4
96	2021/07/28 08:18:00	44.5	43.5	42.6	43.1	43.6
101	2021/07/28 08:18:15	44.3	44.0	43.9	45.2	43.2
106	2021/07/28 08:18:30	43.1	42.2	42.5	43.4	42.9
111	2021/07/28 08:18:45	43.9	44.4	44.1	43.0	43.2
116	2021/07/28 08:19:00	43.5	43.8	43.7	43.4	44.7
121	2021/07/28 08:19:15	47.3	44.6	45.0	43.2	43.4
126	2021/07/28 08:19:30	42.8	42.9	42.8	42.5	42.6
131	2021/07/28 08:19:45	42.5	42.9	42.0	41.2	40.6
136	2021/07/28 08:20:00	41.2	40.5	40.9	39.9	39.7
141	2021/07/28 08:20:15	38.9	48.0	50.6	51.8	44.3
146	2021/07/28 08:20:30	48.9	44.7	42.1	41.1	40.1
151	2021/07/28 08:20:45	40.2	40.0	40.2	40.6	42.0
156	2021/07/28 08:21:00	41.9	44.8	43.2	43.8	42.6
161	2021/07/28 08:21:15	42.0	42.6	41.7	40.9	40.5
166	2021/07/28 08:21:30	39.9	39.3	39.3	39.6	41.8
171	2021/07/28 08:21:45	42.5	48.6	48.8	45.9	45.3
176	2021/07/28 08:22:00	45.0	44.9	43.9	41.3	40.2
181	2021/07/28 08:22:15	41.1	40.1	40.2	39.3	39.5
186	2021/07/28 08:22:30	40.5	40.3	40.5	40.7	41.6
191	2021/07/28 08:22:45	42.1	42.9	42.8	43.1	44.4
196	2021/07/28 08:23:00	44.2	47.9	45.3	45.4	45.1
201	2021/07/28 08:23:15	44.6	44.8	44.1	48.7	50.2
206	2021/07/28 08:23:30	46.5	47.1	45.1	45.1	45.6
211	2021/07/28 08:23:45	45.9	45.1	43.8	42.5	42.0
216	2021/07/28 08:24:00	42.2	42.3	42.1	42.5	42.1
221	2021/07/28 08:24:15	43.1	42.1	42.7	44.9	42.6
226	2021/07/28 08:24:30	42.4	41.5	42.0	41.8	43.4
231	2021/07/28 08:24:45	46.3	44.9	42.6	41.8	41.3
236	2021/07/28 08:25:00	40.3	39.8	40.3	40.6	41.0
241	2021/07/28 08:25:15	40.7	40.7	41.4	40.8	43.2
246	2021/07/28 08:25:30	42.5	43.9	43.4	42.9	41.2
251	2021/07/28 08:25:45	41.7	40.9	40.5	40.2	40.7
256	2021/07/28 08:26:00	41.3	40.6	40.0	39.8	40.7
261	2021/07/28 08:26:15	40.3	40.9	40.3	40.2	40.3
266	2021/07/28 08:26:30	40.5	40.6	41.2	42.2	41.8
271	2021/07/28 08:26:45	41.2	41.3	43.3	45.5	47.7
276	2021/07/28 08:27:00	48.5	45.3	44.5	43.3	43.4
281	2021/07/28 08:27:15	43.7	42.7	43.7	41.2	40.4
286	2021/07/28 08:27:30	39.7	39.2	39.4	39.4	39.6
291	2021/07/28 08:27:45	39.4	40.0	40.5	42.0	44.2
296	2021/07/28 08:28:00	43.4	41.6	41.5	41.8	42.4

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 64.4 - 2021/07/28 09:15:13
- Level Range : 40-100
- SEL : 82.8
- Leq : 53.3
-

No.s	Date Time	(dB)				
1	2021/07/28 09:02:05	52.7	56.1	54.1	57.1	59.9
6	2021/07/28 09:02:20	54.6	55.2	56.8	54.3	56.1
11	2021/07/28 09:02:35	55.7	54.4	57.3	51.5	50.0
16	2021/07/28 09:02:50	49.9	51.3	50.1	50.1	48.9
21	2021/07/28 09:03:05	48.8	49.2	52.2	51.0	48.8
26	2021/07/28 09:03:20	48.8	50.9	53.3	54.4	53.2
31	2021/07/28 09:03:35	49.7	48.8	51.1	51.4	50.9
36	2021/07/28 09:03:50	49.0	49.1	49.0	49.3	49.5
41	2021/07/28 09:04:05	50.0	52.7	53.4	51.8	52.1
46	2021/07/28 09:04:20	51.3	50.8	50.6	53.2	51.7
51	2021/07/28 09:04:35	51.0	50.0	50.4	49.9	49.8
56	2021/07/28 09:04:50	48.8	49.0	49.4	50.9	50.1
61	2021/07/28 09:05:05	49.9	50.7	49.9	50.1	49.5
66	2021/07/28 09:05:20	48.9	49.5	50.4	50.9	53.1
71	2021/07/28 09:05:35	57.0	60.0	55.5	53.0	52.1
76	2021/07/28 09:05:50	50.7	51.6	53.7	55.2	57.1
81	2021/07/28 09:06:05	56.4	54.8	50.7	49.1	49.7
86	2021/07/28 09:06:20	49.2	48.9	48.1	49.5	53.2
91	2021/07/28 09:06:35	52.1	50.2	49.0	50.1	55.1
96	2021/07/28 09:06:50	56.7	58.4	57.2	58.1	58.8
101	2021/07/28 09:07:05	62.4	57.0	55.8	55.2	55.1
106	2021/07/28 09:07:20	55.3	55.2	55.0	55.2	54.9
111	2021/07/28 09:07:35	54.5	54.3	54.8	54.8	54.7
116	2021/07/28 09:07:50	54.1	54.0	54.0	54.6	55.4
121	2021/07/28 09:08:05	55.1	54.9	53.4	51.5	49.0
126	2021/07/28 09:08:20	48.3	48.1	48.3	48.2	48.5
131	2021/07/28 09:08:35	50.2	51.5	52.6	52.0	51.4
136	2021/07/28 09:08:50	51.5	51.3	50.2	49.6	48.4
141	2021/07/28 09:09:05	56.8	50.3	49.5	49.6	51.5
146	2021/07/28 09:09:20	50.0	50.2	51.5	52.8	53.6
151	2021/07/28 09:09:35	54.9	49.3	52.4	48.7	54.9
156	2021/07/28 09:09:50	57.6	58.3	57.1	58.0	56.7
161	2021/07/28 09:10:05	59.0	58.4	56.6	55.5	55.3
166	2021/07/28 09:10:20	54.9	50.2	50.0	52.9	54.0
171	2021/07/28 09:10:35	56.7	50.4	55.7	56.8	57.1
176	2021/07/28 09:10:50	57.5	55.8	49.1	50.0	50.1
181	2021/07/28 09:11:05	56.7	55.9	54.4	51.7	51.2
186	2021/07/28 09:11:20	46.9	47.8	47.7	47.2	48.6
191	2021/07/28 09:11:35	49.3	48.9	50.0	49.7	50.1
196	2021/07/28 09:11:50	49.6	48.4	52.2	53.0	53.3
201	2021/07/28 09:12:05	51.0	46.3	47.8	50.9	50.9
206	2021/07/28 09:12:20	51.7	52.1	53.4	56.6	55.6
211	2021/07/28 09:12:35	54.0	54.2	51.9	52.3	50.8
216	2021/07/28 09:12:50	51.5	49.7	50.2	52.0	50.1
221	2021/07/28 09:13:05	55.0	56.4	51.0	49.8	50.9
226	2021/07/28 09:13:20	48.3	47.5	47.6	50.0	52.3
231	2021/07/28 09:13:35	51.8	52.6	53.5	53.0	49.8
236	2021/07/28 09:13:50	47.3	49.7	52.1	51.1	49.3
241	2021/07/28 09:14:05	48.4	50.4	50.6	52.0	50.4
246	2021/07/28 09:14:20	50.1	49.6	50.9	51.2	49.1
251	2021/07/28 09:14:35	50.6	46.5	47.9	51.7	49.0
256	2021/07/28 09:14:50	49.0	50.6	53.7	52.8	53.3
261	2021/07/28 09:15:05	55.2	61.3	63.9	60.6	52.1
266	2021/07/28 09:15:20	46.6	45.9	50.5	49.8	50.6
271	2021/07/28 09:15:35	50.1	51.8	50.5	47.5	49.1
276	2021/07/28 09:15:50	52.6	49.4	47.6	48.7	52.1
281	2021/07/28 09:16:05	53.2	51.7	47.6	45.1	48.7
286	2021/07/28 09:16:20	49.2	47.8	49.9	51.6	54.2
291	2021/07/28 09:16:35	57.4	55.7	48.1	44.3	43.4
296	2021/07/28 09:16:50	46.8	43.2	43.0	43.0	43.1

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/29/2021
Case Description: Reference Distance

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Reference Distance	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Grader	No	40	85.0		50.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	83.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/29/2021
Case Description: Rialto Construction

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Off-site Residence	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Grader	No	40	85.0		150.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	75.5	71.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.5	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

38HDR
Performance™ Series Air Conditioner with Puron® Refrigerant
1–1/2 to 5 Nominal Tons

Carrier®
Turn to the Experts℠

Product Data



Puron™ the environmentally sound refrigerant

Performance™ SERIES

Carrier's Air Conditioners with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 38HDR has been designed utilizing Carrier's Puron refrigerant. The environmentally sound refrigerant allows you to make a responsible decision in the protection of the earth's ozone layer.

As an Energy Star® Partner, Carrier Corporation has determined that this product meets the Energy Star® guidelines for energy efficiency. Refer to the combination ratings in the Product Data for system combinations that meet Energy Star® guidelines.

NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

INDUSTRY LEADING FEATURES / BENEFITS

Energy Efficiency

- 13 - 15 SEER/10.9 - 12.5 EER

Sound

- Levels as low as 68 dBA

Design Features

- New aesthetics
- Small footprint, same as old model and "stackable"
- WeatherArmor™ cabinet
  - — All steel cabinet construction
  - — Baked on powder paint
  - — Mesh coil guard

Reliability, Quality and Toughness

- Scroll compressor
- Crankcase Heater standard on sizes 030-060
- Factory-supplied filter drier
- High pressure switch
- Low pressure switch
- Line lengths up to 250' (76.2 m)
- Low ambient operation (down to -20°F/-28.9°C) with low ambient accessories.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13
N	N	A	A	A/N	N	N	N	A/N	A/N	A/N	N	N
3	8	H	D	R	0	1	8	A	0	0	3	0
Product Series	HDR = Horizontal Discharge Condensing Unit			Cooling Capacity				Variations	Open	Open	Voltage	Minor Series
38=AC/HP	Major Model			1,000 Btuh Nominal				A=Standard	0=Not Defined	0=Not Defined	3=208/230–1 5=208/230–3 6=460/3	0, 1, 2...

Puron™ the environmentally sound refrigerant

ARI PERFORMANCE CERTIFIED™ ARI Standard 210/240 Unitary Air Conditioners

ISO 9001:2000 QMI REGISTERED

c UL us

ENERGY STAR PARTNER

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturing refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**

PHYSICAL DATA

UNIT 38HDR	018	024	030	036	048	060
NOMINAL CAPACITY (Tons)	1.5	2.0	2.50	3.0	4.0	5.0
OPERATING WEIGHT lb (kg)	155 (70.3)	180 (81.6)	200 (90.7)	218 (98.9)	284 (128.8)	294 (133.4)
REFRIGERANT TYPE	R–410A					
METERING DEVICE	TXV					
CHARGE lb (kg)	6.3 (2.86)	6.0 (2.73)	8.7 (3.95)	8.7 (3.95)	11.5 (5.23)	12.0 (5.45)
COMPRESSOR						
Type	Scroll					
Oil Charge (POE –oz)	25.0	25.0	25.0	25.0	42.0	42.0
Crankcase Heater (watts)	—	—	40	40	40	40
OUTDOOR FAN						
Rpm/Cfm	840/1720	840/1720	850/3900	850/3900	850/3900	850/3900
Diameter in. (mm)	18 (457)	18 (457)	24 (610)	24 (610)	24 (610)	24 (610)
No. Blades	3	3	3	3	3	3
Motor hp (w)	1/8 (93)	1/8 (93)	1/4 (187)	1/4 (187)	1/4 (187)	1/4 (187)
OUTDOOR COIL						
Face Area (sq ft)	5.8	7.3	12.1	12.1	14.1	14.1
No. Rows	2	2	2	2	2	2
FPI	20	20	20	20	20	20
HIGH PRESSURE SWITCH						
Cut–In (psig) Cutout (psig)	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10	420 ± 25 650 ± 10
LOW PRESSURE SWITCH						
Cut–In (psig) Cutout (psig)	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5	45 ± 25 20 ± 5
REFRIGERANT LINES						
Connection Type	Sweat					
Max. Liquid Line* (in.) OD	3/8	3/8	3/8	3/8	3/8	3/8
Rated Vapor Line† (in.) OD	5/8	5/8	3/4	3/4	7/8	1–1/8**
CONTROLS						
Control Voltage‡	24 vac					
System Voltage	208/230 v	208/230 v	208/230 v	208/230 v, Single and 3 Phase, 460 v, 3 Phase		
FINISH	Gray					

* See *Liquid Line Sizing For Cooling Only Systems with Puron Refrigerant* tables.

† Units are rated with 25 ft (7.6 m) of lineset length. See *Vapor Line Sizing and Cooling Capacity Loss* table when using other sizes and lengths of lineset.

‡ 24 v and a minimum of 40 va is provided in the fan coil unit.

** Vapor connection size is 7/8 inch.

FPI – Fins Per Inch

POE – Polyol Ester

REFRIGERANT PIPING LENGTH LIMITATIONS

Liquid Line Sizing and Maximum Total Equivalent Lengths† for Cooling Only Systems with Puron® Refrigerant:

The maximum allowable length of a residential split system depends on the liquid line diameter and vertical separation between indoor and outdoor units.

See Table below for liquid line sizing and maximum lengths :

Maximum Total Equivalent Length
Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit BELOW Indoor Vertical Separation ft (m)								
			0–5 (0–1.5)	6–10 (1.8–3.0)	11–20 (3.4–6.1)	21–30 (6.4–9.1)	31–40 (9.4–12.2)	41–50 (12.5–15.2)	51–60 (15.5–18.3)	61–70 (18.6–21.3)	71–80 (21.6–24.4)
018 AC with Puron	3/8	1/4	150	150	125	100	100	75	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	225*	150
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
024 AC with Puron	3/8	1/4	75	75	75	50	50	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	225*	175	125	100
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
030 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –	– –
		5/16	175	225*	200	175	125	100	75	– –	– –
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
036 AC with Puron	3/8	5/16	175	150	150	100	100	100	75	– –	– –
		3//8	250*	250*	250*	250*	250*	250*	250*	250*	250*
048 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	– –
060 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	– –	– –

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

Maximum Total Equivalent Length
Outdoor Unit ABOVE Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit ABOVE Indoor Vertical Separation ft (m)							
			25 (7.6)	26–50 (7.9–15.2)	51–75 (15.5–22.9)	76–100 (23.2–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)
018 AC with Puron	3/8	1/4	175	250*	250*	250*	250*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
024 AC with Puron	3/8	1/4	100	125	175	200	225*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
030 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
036 AC with Puron	3/8	5/16	225*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
048 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
060 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	Puron Charge oz/ft (g/m)
3/8	0.60 (17.74) (Factory charge for lineset = 9 oz / 266.16 g)
5/16	0.40 (11.83)
1/4	0.27 (7.98)

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz (266.16 g). When using other length or diameter liquid lines, charge adjustments are required per the chart above.

Charging Formula:

[(Lineset oz/ft x total length) – (factory charge for lineset)] = charge adjustment

Example 1: System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?

Formula: (.27 oz/ft x 15ft) – (9 oz) = (-4.95) oz.

Net result is to remove 4.95 oz of refrigerant from the system

Example 2: System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

Formula: (.40 oz/ft. x 45ft) – (9 oz.) = 9 oz.

Net result is to add 9 oz of refrigerant to the system

LONG LINE APPLICATIONS

An application is considered Long Line, when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. See Accessory Usage Guideline table for required accessories. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Air Conditioner systems, the chart below shows when an application is considered Long Line.

AC WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
1/4	No accessories needed within allowed lengths	No accessories needed within allowed lengths	175 (53.3)
5/16	120 (36.6)	50 (15.2) vertical or 120 (36.6) total	120 (36.6)
3/8	80 (24.4)	35 (10.7) vertical or 80 24.4) total	80 (24.4)

Note: See Long Line Guideline for details

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for AC systems with Puron refrigerant:

Vapor Line Sizing and Cooling Capacity Losses — Puron® Refrigerant 1-Stage Air Conditioner Applications

Unit Nominal Size (Btuh)	Maximum Liquid Line Diameters (In. OD)	Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length ft. (m)								
			26–50 (7.9–15.2)	51–80 (15.5–24.4)	81–100 (24.7–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)	201–225 (61.3–68.6)	226–250 (68.9–76.2)
018 1 Stage AC with Puron	3/8	1/2	1	2	3	5	6	7	8	9	11
		5/8	0	1	1	1	2	2	2	3	3
		3/4	0	0	0	0	1	1	1	1	1
024 1 Stage AC with Puron	3/8	5/8	0	1	2	2	3	3	4	5	5
		3/4	0	0	1	1	1	1	1	2	2
		7/8	0	0	0	0	0	1	1	1	1
030 1 Stage AC with Puron	3/8	5/8	1	2	3	3	4	5	6	7	8
		3/4	0	0	1	1	1	2	2	2	3
		7/8	0	0	0	0	1	1	1	1	1
036 1 Stage AC with Puron	3/8	5/8	1	2	4	5	6	8	9	10	12
		3/4	0	1	1	2	2	3	3	4	4
		7/8	0	0	0	1	1	1	1	2	2
048 1 Stage AC with Puron	3/8	3/4	0	1	2	3	4	5	5	6	7
		7/8	0	0	1	1	2	2	2	3	3
		1 1/8	0	0	0	0	0	0	0	1	1
060 1 Stage AC with Puron	3/8	3/4	1	2	4	5	6	7	9	10	11
		7/8	0	1	2	2	3	4	4	5	5
		1 1/8	0	0	0	1	1	1	1	1	1

Applications in this area may be long line and may have height restrictions. See the *Residential Piping and Long Line Guideline*.

ACCESSORY THERMOSTATS

THERMOSTAT / SUBBASE PKG.	DESCRIPTION
TP–PRH01–A	Programmable Thermidistat
TP–NRH01–A	Non–programmable Thermidistat
TP–PAC01	Performance Series Programmable AC Stat
TP–NAC01	Performance Series Non–programmable AC Stat
TSTATCCSEN01–B	Outdoor Air Temperature Sensor
TSTATXXBBP01	Backplate for Builder's Thermostat
TSTATXXNBP01	Backplate for Non–Programmable Thermostat
TSTATXXPBP01	Backplate for Programmable Thermostat
TSTATXXCNV10	Thermostat Conversion Kit (4 to 5 wires) – 10 Pack

ACCESSORIES

KIT NUMBER	KIT NAME	018	024	030	036	048	060
KAACH1401AAA	Crankcase Heater	X	X				
Standard	Crankcase Heater			S	S	S	S
KAAFT0101AAA	Evaporator Freeze Stat	X	X	X	X	X	X
KAATD0101TDR	Time Delay Relay	X	X	X	X	X	X
KAAWS0101AAA	Winter Start Kit (for low ambient)	X	X	X	X	X	X
53DS–900–––086	Low Ambient Control (Puron)	X	X	X	X	X	X
53DS–900–––070	Wind Baffle	X					
53DS–900–––087	Wind Baffle		X				
53DS–900–––071	Wind Baffle			X	X		
53DS–900–––088	Wind Baffle					X	X
53DS–900–––075	Stacking Kit	X	X				
53DS–900–––076	Stacking Kit			X	X	X	X
53DS–900–––077	Wall Mounting Kit	X	X				
53DS–900–––078	Wall Mounting Kit			X	X	X	X

X = Accessory, S = Standard

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW–AMBIENT COOLING APPLICATIONS (Below 55°F/12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 ft. / 24.4 m)	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles / 3.2 km)
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shutoff TXV	Yes	Yes	Yes
Liquid Line Solenoid Valve	No	See Longline Application Guideline	No
Low–ambient Control	Yes	No	No
Winter Start Control	Yes	No	No

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 35 ft. (10.7 m) vertical differential, refer to Residential Piping and Longline Guideline.

Accessory Description and Usage (Listed Alphabetically)

1. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

2. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

3. Low-Ambient Control

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± 5.5°C).

Usage Guideline:

A Low Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

4. Outdoor Air Temperature Sensor

Designed for use with Carrier Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also

is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Carrier thermostats listed in this publication.

5. Thermostatic Expansion Valve (TXV)

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Kit includes valve, adapter tubes, and external equalizer tube. Hard shut off types are available.

NOTE: When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist Capacitor and Relay is required.

Usage Guideline:

Accessory required to meet ARI rating and system reliability, where indoor not equipped.

Hard shut off TXV or LLS required in air conditioner long line applications.

Required for use on all zoning systems.

6. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

NOTE: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

Accessory required to meet ARI rating, where indoor not equipped.

7. Winter Start Control

This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.

ELECTRICAL DATA

38HDR UNIT SIZE	V–PH–Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/CKT BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
018–31	208/230–1–60	187	253	9.0	48.0	0.8	0.125	0.09	12.1	20
024–32	208/230–1–60	187	253	13.5	58.3	0.8	0.125	0.09	17.7	25
030–31	208/230–1–60	187	253	14.1	73.0	1.5	0.250	0.19	19.1	30
036–31	208/230–1–60	187	253	14.1	77.0	1.5	0.250	0.19	19.1	30
	208/230–3–60	187	253	9.2	71.0	1.5	0.250	0.19	13.0	20
	460–3–60	414	506	5.6	38.0	0.8	0.250	0.19	7.9	10
048–32	208/230–1–60	187	253	19.9	109.0	1.5	0.250	0.19	26.4	40
	208/230–3–60	187	253	13.1	83.1	1.5	0.250	0.19	17.9	25
	460–3–60	414	506	6.1	41.0	0.8	0.250	0.19	8.4	15
060–32	208/230–1–60	187	253	26.4	134.0	1.5	0.250	0.19	34.5	60
	208/230–3–60	187	253	16.0	110.0	1.5	0.250	0.19	21.5	30
	460–3–60	414	506	7.8	52.0	0.8	0.250	0.19	10.6	15

* Permissible limits of the voltage range at which the unit will operate satisfactorily

FLA – Full Load Amps

HACR – Heating, Air Conditioning, Refrigeration

LRA – Locked Rotor Amps

NEC – National Electrical Code

RLA – Rated Load Amps (compressor)

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER (dBA)

Unit Size	Standard Rating (dBA)	Typical Octave Band Spectrum (dBA) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018–31	68	52.0	57.5	60.5	63.5	60.5	57.5	46.5
024–32	69	57.5	61.5	63.0	61.0	60.0	56.0	45.0
030–31	72	56.5	63.0	65.0	66.0	64.0	62.5	57.0
036–31	72	65.0	61.5	63.5	65.0	64.5	61.0	54.5
048–32	72	58.5	61.0	64.0	67.5	66.0	64.0	57.0
060–32	72	63.0	61.5	64.0	66.5	66.0	64.5	55.5

NOTE: Tested in accordance with ARI Standard 270–08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

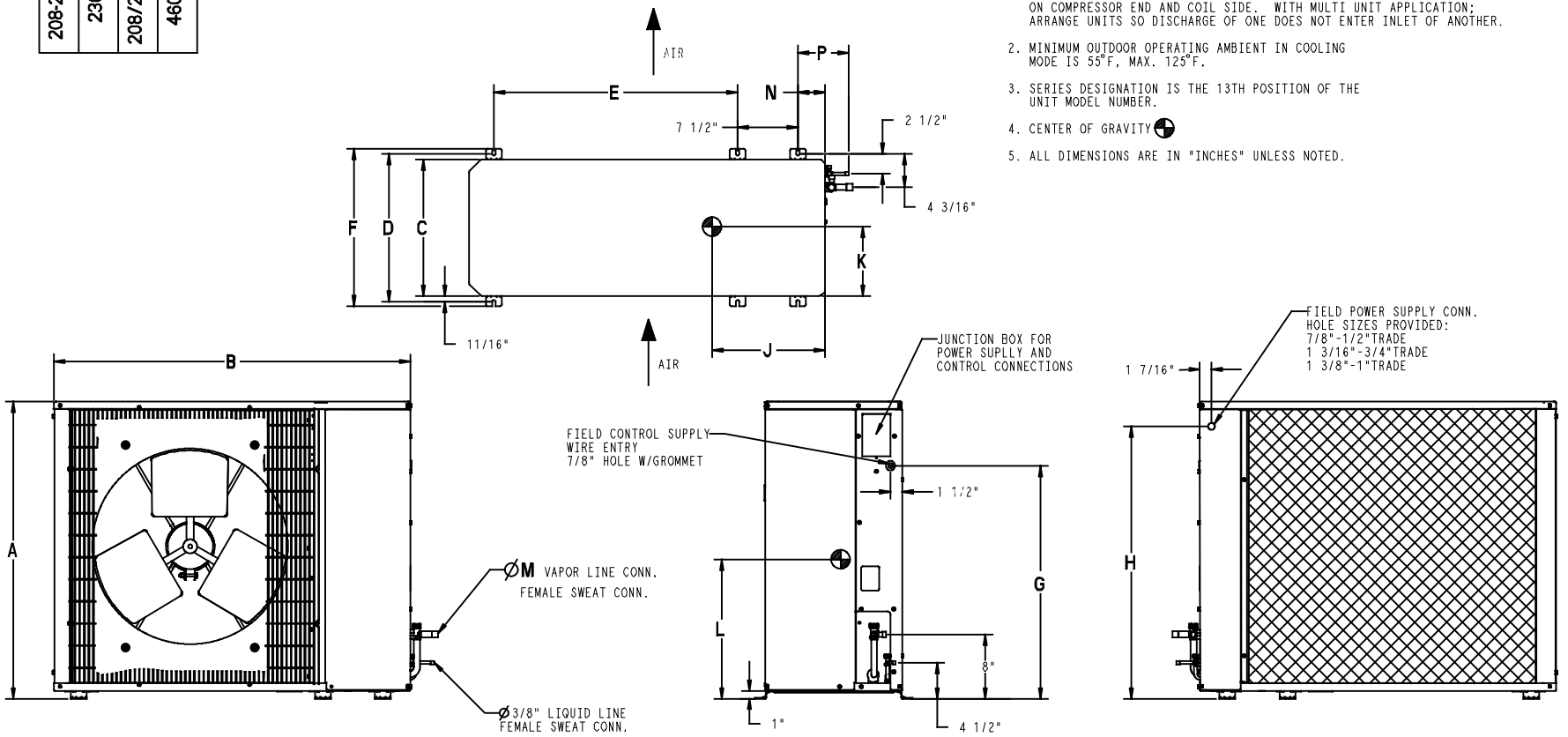
UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
018–31	12 (6.7)
024–32	12 (6.7)
030–31	12 (6.7)
036–31	12 (6.7)
048–32	12 (6.7)
060–32	12 (6.7)

DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L	M	N	P	OPERATING WEIGHT(lbs)	SHIPPING WEIGHT(lbs)	SHIPPING DIMENSIONS (L x W x H)
38HDR018	1	X	O	O	O	25 1/8"	36 15/16"	14 9/16"	16"	23 7/16"	17 3/16"	17 1/8"	22"	13"	6 5/8"	11 1/4"	5/8"	2 15/16"	6"	155	171	42 9/10" X 18" X 28 1/10"
38HDR024	1,2	X	O	O	O	31 1/8"	36 15/16"	14 9/16"	16"	23 7/16"	17 3/16"	23 1/8"	28"	14"	6 3/4"	11 5/8"	5/8"	2 15/16"	6"	180	198	42 9/10" X 18" X 34 1/10"
38HDR030	1	X	O	O	O	37 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	29 3/16"	34 1/16"	13 11/16"	8 1/8"	15 7/8"	3/4"	3 7/16"	6 1/2"	200	223	50 1/2" X 20 1/2" X 40 2/10"
38HDR036	1	X	O	X	X	37 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	29 3/16"	34 1/16"	13 11/16"	8 1/8"	15 7/8"	3/4"	3 7/16"	6 1/2"	218	240	50 1/2" X 20 1/2" X 40 2/10"
38HDR048	1,2	X	O	X	X	43 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	35 3/16"	40 1/16"	14 1/2"	8 1/2"	18 7/8"	7/8"	3 7/16"	6 1/2"	284	309	50 1/2" X 20 1/2" X 46 2/10"
38HDR060	1,2	X	O	X	X	43 3/16"	44 9/16"	17 1/16"	18 7/16"	30 1/2"	19 5/8"	35 3/16"	40 1/16"	14 1/2"	8 1/2"	18 7/8"	7/8"	3 7/16"	6 1/2"	294	319	50 1/2" X 20 1/2" X 46 2/10"
		208-230-1-60	230-1-60	208/230-3-60	460-3-60																	

X = YES
O = NO

1. REQUIRED CLEARANCES: WITH COIL FACING WALL; ALLOW 6" MIN CLEARANCE ON COIL SIDE AND COIL END AND 36" MIN CLEARANCE ON COMPRESSOR END AND FAN SIDE. WITH FAN FACING WALL; ALLOW 8" MIN CLEARANCE ON FAN SIDE AND COIL END AND 36" MIN CLEARANCE ON COMPRESSOR END AND COIL SIDE. WITH MULTI UNIT APPLICATION; ARRANGE UNITS SO DISCHARGE OF ONE DOES NOT ENTER INLET OF ANOTHER.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 13TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY
5. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.



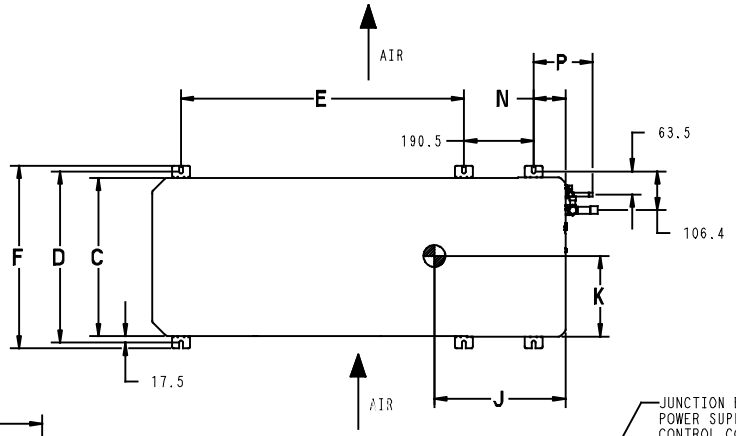
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18,24	23" X 42"
30,36,48,60	24" X 50"

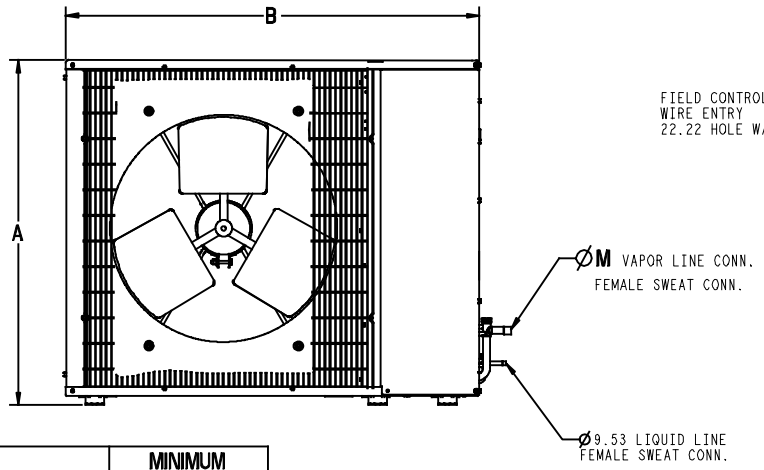
DIMENSIONS - SI

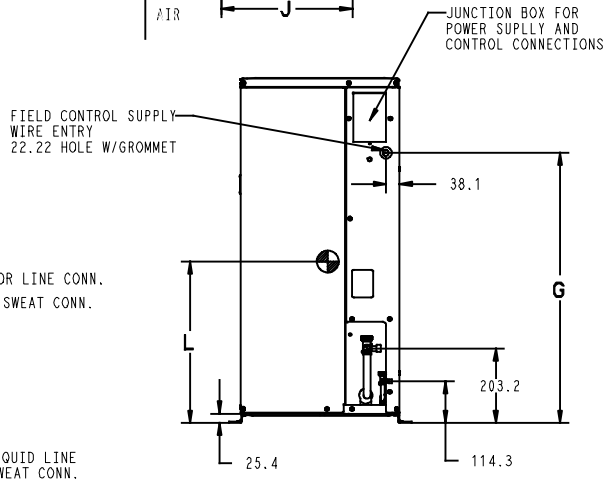
UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L	M	N	P	OPERATING WEIGHT(KG)	SHIPPING WEIGHT(KG)	SHIPPING DIMENSIONS (L x W x H)
38HDR018	1	X	O	O	O	638.2	938.2	369.9	406.4	595.3	436.6	435.0	558.8	330.2	168.3	285.8	15.9	74.6	152.4	70.4	77.7	1090.2 X 457.7 X 714.3
38HDR024	1,2	X	O	O	O	790.6	938.2	369.9	406.4	595.3	436.6	587.4	711.2	355.6	171.5	295.3	15.9	74.6	152.4	81.8	90.0	1090.2 X 457.7 X 866.7
38HDR030	1	X	O	O	O	944.6	1131.9	433.4	468.3	774.7	498.5	741.4	865.2	347.7	206.4	403.2	19.0	87.3	165.1	90.9	101.4	1282.7 X 520.7 X 1020.7
38HDR036	1	X	O	X	X	944.6	1131.9	433.4	468.3	774.7	498.5	741.4	865.2	347.7	206.4	403.2	19.0	87.3	165.1	99.0	109.0	1282.7 X 520.7 X 1020.7
38HDR048	1,2	X	O	X	X	1097.0	1131.9	433.4	468.3	774.7	498.5	893.8	1017.6	368.3	215.9	479.4	22.2	87.3	165.1	129.0	140.4	1282.7 X 520.7 X 1173.1
38HDR060	1,2	X	O	X	X	1097.0	1131.9	433.4	468.3	774.7	498.5	893.8	1017.6	368.3	215.9	479.4	22.2	87.3	165.1	133.6	145.0	1282.7 X 520.7 X 1173.1
		208-230-1-60	230-1-60	208/230-3-60	460-3-60																	

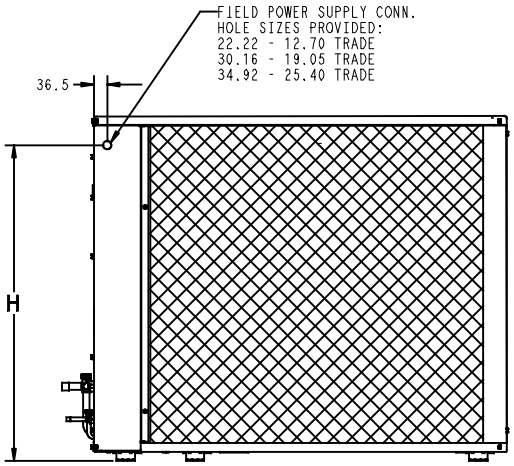
X = YES
O = NO

1. REQUIRED CLEARANCES: WITH COIL FACING WALL; ALLOW 152.4 MIN CLEARANCE ON COIL SIDE AND COIL END AND 914.4 MIN CLEARANCE ON COMPRESSOR END AND FAN SIDE. WITH FAN FACING WALL; ALLOW 203.2 MIN CLEARANCE ON FAN SIDE AND COIL END AND 914.4 MIN CLEARANCE ON COMPRESSOR END AND COIL SIDE. WITH MULTI UNIT APPLICATION; ARRANGE UNITS SO DISCHARGE OF ONE DOES NOT ENTER INLET OF ANOTHER.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 12.8°C, MAX. 51.7°C.
3. SERIES DESIGNATION IS THE 13TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY
5. ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.









UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18,24	584.2 X 1066.8
30,36,48,60	609.6 X 1270.0

COMBINATION RATINGS

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085392	38HDR018−31	†CNPV*1814A**+TDR		17,000	11.0	13.0
1117974	38HDR018−31	40QAC024−−−3		18,000	11.5	13.0
1085396	38HDR018−31	CAP**1814A**	58CV(A,X)070−12	17,000	11.5	14.0
3015375	38HDR018−31	CAP**1814A**	58PH*045−08	17,000	11.5	14.0
1085394	38HDR018−31	CAP**1814A**+TDR		17,000	10.9	13.0
1085400	38HDR018−31	CAP**2414A**	58CV(A,X)070−12	17,400	11.5	14.0
3015376	38HDR018−31	CAP**2414A**	58PH*045−08	17,400	12.0	14.5
1085398	38HDR018−31	CAP**2414A**+TDR		17,400	11.0	13.0
1085456	38HDR018−31	CAP**2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085406	38HDR018−31	CAP**2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112072	38HDR018−31	CAP**2417A**	58MEB040−12	17,400	12.0	14.5
3112073	38HDR018−31	CAP**2417A**	58MEB060−12	17,400	12.0	14.5
1390388	38HDR018−31	CAP**2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1085402	38HDR018−31	CAP**2417A**+TDR		17,400	11.0	13.0
1085432	38HDR018−31	CNPF*2418A**+TDR		17,400	11.0	13.0
1085428	38HDR018−31	CNPH*2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085430	38HDR018−31	CNPH*2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112076	38HDR018−31	CNPH*2417A**	58MEB040−12	17,400	12.0	14.5
3112077	38HDR018−31	CNPH*2417A**	58MEB060−12	17,400	12.0	14.5
1390392	38HDR018−31	CNPH*2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1390396	38HDR018−31	CNPH*2417A**	58MV(B,C)080−14	17,400	11.5	14.0
3015379	38HDR018−31	CNPH*2417A**	58PH*045−08	17,400	12.0	14.5
1085420	38HDR018−31	CNPH*2417A**+TDR		17,400	11.0	13.0
1085408	38HDR018−31	CNPV*1814A**	58CV(A,X)070−12	17,000	11.5	14.0
3015377	38HDR018−31	CNPV*1814A**	58PH*045−08	17,000	11.5	14.0
1085412	38HDR018−31	CNPV*2414A**	58CV(A,X)070−12	17,400	11.5	14.0
3015378	38HDR018−31	CNPV*2414A**	58PH*045−08	17,400	12.0	14.5
1085410	38HDR018−31	CNPV*2414A**+TDR		17,400	11.0	13.0
1085458	38HDR018−31	CNPV*2417A**	58CV(A,X)070−12	17,400	11.5	14.0
1085418	38HDR018−31	CNPV*2417A**	58CV(A,X)090−16	17,400	11.5	14.0
3112074	38HDR018−31	CNPV*2417A**	58MEB040−12	17,400	12.0	14.5
3112075	38HDR018−31	CNPV*2417A**	58MEB060−12	17,400	12.0	14.5
1390390	38HDR018−31	CNPV*2417A**	58MV(B,C)060−14	17,400	11.5	14.0
1085414	38HDR018−31	CNPV*2417A**+TDR		17,400	11.0	13.0
1085442	38HDR018−31	CSPH*2412A**	58CV(A,X)070−12	17,400	11.5	14.0
1085444	38HDR018−31	CSPH*2412A**	58CV(A,X)090−16	17,400	11.5	14.0
3112078	38HDR018−31	CSPH*2412A**	58MEB040−12	17,400	12.0	14.5
3112079	38HDR018−31	CSPH*2412A**	58MEB060−12	17,400	12.0	14.5
1390394	38HDR018−31	CSPH*2412A**	58MV(B,C)060−14	17,400	11.5	14.0
1390398	38HDR018−31	CSPH*2412A**	58MV(B,C)080−14	17,400	11.5	14.0
3015380	38HDR018−31	CSPH*2412A**	58PH*045−08	17,400	12.0	14.5
1085434	38HDR018−31	CSPH*2412A**+TDR		17,400	11.0	13.0
1086232	38HDR018−31	FE4ANF002+UI		17,400	11.5	14.0
1085450	38HDR018−31	FF1ENP018		17,400	11.0	13.0
1085452	38HDR018−31	FF1ENP024		17,400	11.0	13.0
1085454	38HDR018−31	FV4BNF002		17,400	11.5	14.0
3404623	38HDR018−31	FV4CNF002		17,400	11.5	14.0
1085446	38HDR018−31	FX4CNF018		17,000	11.5	14.0
1085448	38HDR018−31	FX4CNF024		17,400	11.5	14.0
3465486	38HDR024−32	†CNPV*2414A**+TDR		23,400	11.0	13.0
3465806	38HDR024−32	40QAC024−3		22,800	11.5	13.0
3465488	38HDR024−32	CAP**2414A**	58CV(A,X)070−12	23,400	11.5	14.0
3465489	38HDR024−32	CAP**2414A**	58PH*045−08	23,400	11.5	14.0
3465487	38HDR024−32	CAP**2414A**+TDR		23,400	11.0	13.0
3465492	38HDR024−32	CAP**2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465493	38HDR024−32	CAP**2417A**	58MEB040−12	23,400	12.0	14.5
3465494	38HDR024−32	CAP**2417A**	58MEB060−12	23,400	12.0	14.5
3465495	38HDR024−32	CAP**2417A**	58MEB080−12	23,400	12.0	14.5
3465491	38HDR024−32	CAP**2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465490	38HDR024−32	CAP**2417A**+TDR		23,400	11.0	13.0
3465497	38HDR024−32	CAP**3014A**	58CV(A,X)070−12	23,400	11.5	14.0
3465498	38HDR024−32	CAP**3014A**	58PH*045−08	23,600	12.0	14.5
3465496	38HDR024−32	CAP**3014A**+TDR		23,600	11.0	13.0
3465501	38HDR024−32	CAP**3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465502	38HDR024−32	CAP**3017A**	58MEB040−12	23,600	12.0	14.5
3465503	38HDR024−32	CAP**3017A**	58MEB060−12	23,600	12.0	14.5
3465504	38HDR024−32	CAP**3017A**	58MEB080−12	23,600	12.0	14.5
3465500	38HDR024−32	CAP**3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465499	38HDR024−32	CAP**3017A**+TDR		23,600	11.0	13.0
3465554	38HDR024−32	CNPF*2418A**+TDR		23,400	11.0	13.0
3465529	38HDR024−32	CNPH*2417A**	58CV(A,X)070−12	23,400	11.5	14.0
3465530	38HDR024−32	CNPH*2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465531	38HDR024−32	CNPH*2417A**	58CV(A,X)110−20	23,400	11.5	14.0
3465532	38HDR024−32	CNPH*2417A**	58CV(A,X)135−22	23,400	11.5	14.0
3465533	38HDR024−32	CNPH*2417A**	58CV(A,X)155−22	23,400	11.5	14.0
3465535	38HDR024−32	CNPH*2417A**	58MEB040−12	23,400	12.0	14.5
3465536	38HDR024−32	CNPH*2417A**	58MEB060−12	23,400	12.0	14.5
3465537	38HDR024−32	CNPH*2417A**	58MEB080−12	23,400	12.0	14.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465524	38HDR024−32	CNPH*2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465525	38HDR024−32	CNPH*2417A**	58MV(B,C)080−14	23,400	11.5	14.0
3465526	38HDR024−32	CNPH*2417A**	58MV(B,C)080−20	23,200	11.5	14.0
3465527	38HDR024−32	CNPH*2417A**	58MV(B,C)100−20	23,400	11.5	14.0
3465528	38HDR024−32	CNPH*2417A**	58MV(B,C)120−20	23,400	11.5	14.0
3465523	38HDR024−32	CNPH*2417A**	58MVB040−14	23,400	11.5	14.0
3465534	38HDR024−32	CNPH*2417A**	58PH*045−08	23,400	11.5	14.0
3465522	38HDR024−32	CNPH*2417A**+TDR		23,400	11.0	13.0
3465545	38HDR024−32	CNPH*3017A**	58CV(A,X)070−12	23,400	11.5	14.0
3465546	38HDR024−32	CNPH*3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465547	38HDR024−32	CNPH*3017A**	58CV(A,X)110−20	23,600	11.5	14.0
3465548	38HDR024−32	CNPH*3017A**	58CV(A,X)135−22	23,600	11.5	14.0
3465549	38HDR024−32	CNPH*3017A**	58CV(A,X)155−22	23,600	11.5	14.0
3465551	38HDR024−32	CNPH*3017A**	58MEB040−12	23,600	12.0	14.5
3465552	38HDR024−32	CNPH*3017A**	58MEB060−12	23,600	12.0	14.5
3465553	38HDR024−32	CNPH*3017A**	58MEB080−12	23,600	12.0	14.5
3465540	38HDR024−32	CNPH*3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465541	38HDR024−32	CNPH*3017A**	58MV(B,C)080−14	23,400	11.5	14.0
3465542	38HDR024−32	CNPH*3017A**	58MV(B,C)080−20	23,400	11.5	14.0
3465543	38HDR024−32	CNPH*3017A**	58MV(B,C)100−20	23,600	11.5	14.0
3465544	38HDR024−32	CNPH*3017A**	58MV(B,C)120−20	23,600	11.5	14.0
3465539	38HDR024−32	CNPH*3017A**	58MVB040−14	23,600	11.5	14.0
3465550	38HDR024−32	CNPH*3017A**	58PH*045−08	23,600	12.0	14.5
3465538	38HDR024−32	CNPH*3017A**+TDR		23,600	11.0	13.0
3465505	38HDR024−32	CNPV*2414A**	58CV(A,X)070−12	23,400	11.5	14.0
3465506	38HDR024−32	CNPV*2414A**	58PH*045−08	23,400	11.5	14.0
3465509	38HDR024−32	CNPV*2417A**	58CV(A,X)090−16	23,400	11.5	14.0
3465510	38HDR024−32	CNPV*2417A**	58MEB040−12	23,400	12.0	14.5
3465511	38HDR024−32	CNPV*2417A**	58MEB060−12	23,400	12.0	14.5
3465512	38HDR024−32	CNPV*2417A**	58MEB080−12	23,400	12.0	14.5
3465508	38HDR024−32	CNPV*2417A**	58MV(B,C)060−14	23,400	11.5	14.0
3465507	38HDR024−32	CNPV*2417A**+TDR		23,400	11.0	13.0
3465514	38HDR024−32	CNPV*3014A**	58CV(A,X)070−12	23,400	11.5	14.0
3465515	38HDR024−32	CNPV*3014A**	58PH*045−08	23,600	11.5	14.0
3465513	38HDR024−32	CNPV*3014A**+TDR		23,600	11.0	13.0
3465518	38HDR024−32	CNPV*3017A**	58CV(A,X)090−16	23,600	11.5	14.0
3465519	38HDR024−32	CNPV*3017A**	58MEB040−12	23,600	12.0	14.5
3465520	38HDR024−32	CNPV*3017A**	58MEB060−12	23,600	12.0	14.5
3465521	38HDR024−32	CNPV*3017A**	58MEB080−12	23,600	12.0	14.5
3465517	38HDR024−32	CNPV*3017A**	58MV(B,C)060−14	23,600	11.5	14.0
3465516	38HDR024−32	CNPV*3017A**+TDR		23,600	11.0	13.0
3465562	38HDR024−32	CSPH*2412A**	58CV(A,X)070−12	23,400	11.5	14.0
3465563	38HDR024−32	CSPH*2412A**	58CV(A,X)090−16	23,400	11.5	14.0
3465564	38HDR024−32	CSPH*2412A**	58CV(A,X)110−20	23,400	11.5	14.0
3465565	38HDR024−32	CSPH*2412A**	58CV(A,X)135−22	23,400	11.5	14.0
3465566	38HDR024−32	CSPH*2412A**	58CV(A,X)155−22	23,400	11.5	14.0
3465568	38HDR024−32	CSPH*2412A**	58MEB040−12	23,400	12.0	14.5
3465569	38HDR024−32	CSPH*2412A**	58MEB060−12	23,400	12.0	14.5
3465570	38HDR024−32	CSPH*2412A**	58MEB080−12	23,400	12.0	14.5
3465557	38HDR024−32	CSPH*2412A**	58MV(B,C)060−14	23,400	11.5	14.0
3465558	38HDR024−32	CSPH*2412A**	58MV(B,C)080−14	23,400	11.5	14.0
3465559	38HDR024−32	CSPH*2412A**	58MV(B,C)080−20	23,400	11.5	14.0
3465560	38HDR024−32	CSPH*2412A**	58MV(B,C)100−20	23,400	11.5	14.0
3465561	38HDR024−32	CSPH*2412A**	58MV(B,C)120−20	23,400	11.5	14.0
3465556	38HDR024−32	CSPH*2412A**	58MVB040−14	23,400	11.5	14.0
3465567	38HDR024−32	CSPH*2412A**	58PH*045−08	23,400	11.5	14.0
3465555	38HDR024−32	CSPH*2412A**+TDR		23,400	11.0	13.0
3465578	38HDR024−32	CSPH*3012A**	58CV(A,X)070−12	23,600	11.5	14.0
3465579	38HDR024−32	CSPH*3012A**	58CV(A,X)090−16	23,600	11.5	14.0
3465580	38HDR024−32	CSPH*3012A**	58CV(A,X)110−20	23,600	11.5	14.0
3465581	38HDR024−32	CSPH*3012A**	58CV(A,X)135−22	23,600	11.5	14.0
3465582	38HDR024−32	CSPH*3012A**	58CV(A,X)155−22	23,600	11.5	14.0
3465584	38HDR024−32	CSPH*3012A**	58MEB040−12	23,600	12.0	14.5
3465585	38HDR024−32	CSPH*3012A**	58MEB060−12	23,600	12.0	14.5
3465586	38HDR024−32	CSPH*3012A**	58MEB080−12	23,600	12.0	14.5
3465573	38HDR024−32	CSPH*3012A**	58MV(B,C)060−14	23,600	11.5	14.0
3465574	38HDR024−32	CSPH*3012A**	58MV(B,C)080−14	23,600	11.5	14.0
3465575	38HDR024−32	CSPH*3012A**	58MV(B,C)080−20	23,400	11.5	14.0
3465576	38HDR024−32	CSPH*3012A**	58MV(B,C)100−20	23,600	11.5	14.0
3465577	38HDR024−32	CSPH*3012A**	58MV(B,C)120−20	23,600	11.5	14.0
3465572	38HDR024−32	CSPH*3012A**	58MVB040−14	23,600	11.5	14.0
3465583	38HDR024−32	CSPH*3012A**	58PH*045−08	23,600	12.0	14.5
3465571	38HDR024−32	CSPH*3012A**+TDR		23,600	11.0	13.0
3465594	38HDR024−32	FE4AN(B,F)003+UI		23,800	12.0	14.5
3465592	38HDR024−32	FE4ANF002+UI		23,600	12.0	14.5
3465596	38HDR024−32	FE5ANB004+UI		24,000	12.0	14.5
3465597	38HDR024−32	FF1ENP024		22,800	11.0	13.0
3465606	38HDR024−32	FF1ENP025		23,400	11.5	14.0
3465600	38HDR024−32	FF1ENP030		23,000	11.0	13.0

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ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465608	38HDR024−32	FF1ENP031		23,600	11.5	14.0
3465609	38HDR024−32	FF1ENP037		23,800	11.5	14.0
3465603	38HDR024−32	FV4BN(B,F)003		23,800	12.0	14.5
3465601	38HDR024−32	FV4BNF002		23,600	12.0	14.5
3465613	38HDR024−32	FV4CN(B,F)003		23,800	12.0	14.5
3465611	38HDR024−32	FV4CNF002		23,600	12.0	14.5
3465589	38HDR024−32	FX4CNF024		23,400	11.5	14.0
3465590	38HDR024−32	FX4CNF030		23,800	11.5	14.0
3465587	38HDR024−32	FY4ANF024		23,200	11.0	13.0
3465588	38HDR024−32	FY4ANF030		23,600	11.0	13.0
1085620	38HDR030−31	†CNPV*3014A**+TDR		28,000	11.0	13.0
1117978	38HDR030−31	40QAC036−−−3		29,000	12.0	13.0
1085624	38HDR030−31	CAP**3014A**	58CV(A,X)070−12	28,000	11.5	14.0
1085622	38HDR030−31	CAP**3014A**+TDR		28,000	11.0	13.0
1085788	38HDR030−31	CAP**3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085630	38HDR030−31	CAP**3017A**	58CV(A,X)090−16	28,000	11.5	14.0
3112104	38HDR030−31	CAP**3017A**	58MEB040−12	28,000	12.0	14.5
3112105	38HDR030−31	CAP**3017A**	58MEB060−12	28,000	12.0	14.5
3112106	38HDR030−31	CAP**3017A**	58MEB080−12	28,000	12.0	14.5
3112107	38HDR030−31	CAP**3017A**	58MEB080−16	28,000	12.0	14.5
1390448	38HDR030−31	CAP**3017A**	58MV(B,C)060−14	28,000	11.5	14.0
3015389	38HDR030−31	CAP**3017A**	58PH*070−16	28,000	11.5	14.0
1085626	38HDR030−31	CAP**3017A**+TDR		28,000	11.0	13.0
1085634	38HDR030−31	CAP**3614A**	58CV(A,X)070−12	28,600	11.5	14.0
1085632	38HDR030−31	CAP**3614A**+TDR		28,600	11.0	13.0
1085790	38HDR030−31	CAP**3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085640	38HDR030−31	CAP**3617A**	58CV(A,X)090−16	28,600	11.5	14.0
3112108	38HDR030−31	CAP**3617A**	58MEB040−12	28,600	12.0	14.5
3112109	38HDR030−31	CAP**3617A**	58MEB060−12	28,600	12.0	14.5
3112110	38HDR030−31	CAP**3617A**	58MEB080−12	28,600	12.0	14.5
3112111	38HDR030−31	CAP**3617A**	58MEB080−16	28,600	12.0	14.5
1390450	38HDR030−31	CAP**3617A**	58MV(B,C)060−14	28,600	11.5	14.0
3015390	38HDR030−31	CAP**3617A**	58PH*070−16	28,600	12.0	14.5
1085636	38HDR030−31	CAP**3617A**+TDR		28,600	11.0	13.0
1085794	38HDR030−31	CAP**3621A**	58CV(A,X)090−16	28,600	11.5	14.0
1085650	38HDR030−31	CAP**3621A**	58CV(A,X)110−20	28,600	11.5	14.0
1390464	38HDR030−31	CAP**3621A**	58MV(B,C)060−14	28,600	11.5	14.0
1390468	38HDR030−31	CAP**3621A**	58MV(B,C)080−14	28,600	11.5	14.0
1390480	38HDR030−31	CAP**3621A**	58MV(B,C)080−20	28,600	11.5	14.0
1390492	38HDR030−31	CAP**3621A**	58MV(B,C)100−20	28,600	11.5	14.0
3015391	38HDR030−31	CAP**3621A**	58PH*090−16	28,600	12.0	14.5
1085642	38HDR030−31	CAP**3621A**+TDR		28,600	11.0	13.0
1085724	38HDR030−31	CNPF*3618A**+TDR		28,600	11.0	13.0
1085690	38HDR030−31	CNPH*3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085692	38HDR030−31	CNPH*3017A**	58CV(A,X)090−16	28,000	11.5	14.0
1085694	38HDR030−31	CNPH*3017A**	58CV(A,X)110−20	28,000	11.5	14.0
1085696	38HDR030−31	CNPH*3017A**	58CV(A,X)135−22	28,000	11.5	14.0
1085698	38HDR030−31	CNPH*3017A**	58CV(A,X)155−22	28,000	11.5	14.0
3112120	38HDR030−31	CNPH*3017A**	58MEB040−12	28,000	12.0	14.5
3112121	38HDR030−31	CNPH*3017A**	58MEB060−12	28,000	12.0	14.5
3112122	38HDR030−31	CNPH*3017A**	58MEB080−12	28,000	12.0	14.5
3112123	38HDR030−31	CNPH*3017A**	58MEB080−16	28,000	12.0	14.5
1390456	38HDR030−31	CNPH*3017A**	58MV(B,C)060−14	28,000	11.5	14.0
1390472	38HDR030−31	CNPH*3017A**	58MV(B,C)080−14	28,000	11.5	14.0
1390484	38HDR030−31	CNPH*3017A**	58MV(B,C)080−20	28,000	11.5	14.0
1390496	38HDR030−31	CNPH*3017A**	58MV(B,C)100−20	28,000	11.5	14.0
1390504	38HDR030−31	CNPH*3017A**	58MV(B,C)120−20	28,000	11.5	14.0
3015395	38HDR030−31	CNPH*3017A**	58PH*070−16	28,000	11.5	14.0
3015396	38HDR030−31	CNPH*3017A**	58PH*090−16	28,000	11.5	14.0
1085676	38HDR030−31	CNPH*3017A**+TDR		28,000	11.0	13.0
1085714	38HDR030−31	CNPH*3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085716	38HDR030−31	CNPH*3617A**	58CV(A,X)090−16	28,600	11.5	14.0
1085718	38HDR030−31	CNPH*3617A**	58CV(A,X)110−20	28,600	11.5	14.0
1085720	38HDR030−31	CNPH*3617A**	58CV(A,X)135−22	28,600	11.5	14.0
1085722	38HDR030−31	CNPH*3617A**	58CV(A,X)155−22	28,600	11.5	14.0
3112124	38HDR030−31	CNPH*3617A**	58MEB040−12	28,600	12.0	14.5
3112125	38HDR030−31	CNPH*3617A**	58MEB060−12	28,600	12.0	14.5
3112126	38HDR030−31	CNPH*3617A**	58MEB080−12	28,600	12.0	14.5
3112127	38HDR030−31	CNPH*3617A**	58MEB080−16	28,600	12.0	14.5
1390458	38HDR030−31	CNPH*3617A**	58MV(B,C)060−14	28,600	11.5	14.0
1390474	38HDR030−31	CNPH*3617A**	58MV(B,C)080−14	28,600	11.5	14.0
1390486	38HDR030−31	CNPH*3617A**	58MV(B,C)080−20	28,600	11.5	14.0
1390498	38HDR030−31	CNPH*3617A**	58MV(B,C)100−20	28,600	11.5	14.0
1390506	38HDR030−31	CNPH*3617A**	58MV(B,C)120−20	28,600	11.5	14.0
3015397	38HDR030−31	CNPH*3617A**	58PH*070−16	28,600	12.0	14.5
3015398	38HDR030−31	CNPH*3617A**	58PH*090−16	28,600	12.0	14.5
1085700	38HDR030−31	CNPH*3617A**+TDR		28,600	11.0	13.0
1085652	38HDR030−31	CNPV*3014A**	58CV(A,X)070−12	28,000	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085796	38HDR030−31	CNPV*3017A**	58CV(A,X)070−12	28,000	11.5	14.0
1085658	38HDR030−31	CNPV*3017A**	58CV(A,X)090−16	28,000	11.5	14.0
3112112	38HDR030−31	CNPV*3017A**	58MEB040−12	28,000	12.0	14.5
3112113	38HDR030−31	CNPV*3017A**	58MEB060−12	28,000	12.0	14.5
3112114	38HDR030−31	CNPV*3017A**	58MEB080−12	28,000	12.0	14.5
3112115	38HDR030−31	CNPV*3017A**	58MEB080−16	28,000	12.0	14.5
1390452	38HDR030−31	CNPV*3017A**	58MV(B,C)060−14	28,000	11.5	14.0
3015392	38HDR030−31	CNPV*3017A**	58PH*070−16	28,000	11.5	14.0
1085654	38HDR030−31	CNPV*3017A**+TDR		28,000	11.0	13.0
1085798	38HDR030−31	CNPV*3617A**	58CV(A,X)070−12	28,600	11.5	14.0
1085664	38HDR030−31	CNPV*3617A**	58CV(A,X)090−16	28,600	11.5	14.0
3112116	38HDR030−31	CNPV*3617A**	58MEB040−12	28,600	12.0	14.5
3112117	38HDR030−31	CNPV*3617A**	58MEB060−12	28,600	12.0	14.5
3112118	38HDR030−31	CNPV*3617A**	58MEB080−12	28,600	12.0	14.5
3112119	38HDR030−31	CNPV*3617A**	58MEB080−16	28,600	12.0	14.5
1390454	38HDR030−31	CNPV*3617A**	58MV(B,C)060−14	28,600	11.5	14.0
3015393	38HDR030−31	CNPV*3617A**	58PH*070−16	28,600	12.0	14.5
1085660	38HDR030−31	CNPV*3617A**+TDR		28,600	11.0	13.0
1085802	38HDR030−31	CNPV*3621A**	58CV(A,X)090−16	28,600	11.5	14.0
1085674	38HDR030−31	CNPV*3621A**	58CV(A,X)110−20	28,600	11.5	14.0
1390466	38HDR030−31	CNPV*3621A**	58MV(B,C)060−14	28,600	11.5	14.0
1390470	38HDR030−31	CNPV*3621A**	58MV(B,C)080−14	28,600	11.5	14.0
1390482	38HDR030−31	CNPV*3621A**	58MV(B,C)080−20	28,600	11.5	14.0
1390494	38HDR030−31	CNPV*3621A**	58MV(B,C)100−20	28,600	11.5	14.0
3015394	38HDR030−31	CNPV*3621A**	58PH*090−16	28,600	12.0	14.5
1085666	38HDR030−31	CNPV*3621A**+TDR		28,600	11.0	13.0
1085740	38HDR030−31	CSPH*3012A**	58CV(A,X)070−12	28,000	11.5	14.0
1085742	38HDR030−31	CSPH*3012A**	58CV(A,X)090−16	28,000	11.5	14.0
1085744	38HDR030−31	CSPH*3012A**	58CV(A,X)110−20	28,000	11.5	14.0
1085746	38HDR030−31	CSPH*3012A**	58CV(A,X)135−22	28,000	11.5	14.0
1085748	38HDR030−31	CSPH*3012A**	58CV(A,X)155−22	28,000	11.5	14.0
3112128	38HDR030−31	CSPH*3012A**	58MEB040−12	28,000	12.0	14.5
3112129	38HDR030−31	CSPH*3012A**	58MEB060−12	28,000	12.0	14.5
3112130	38HDR030−31	CSPH*3012A**	58MEB080−12	28,000	12.0	14.5
3112131	38HDR030−31	CSPH*3012A**	58MEB080−16	28,000	12.0	14.5
1390460	38HDR030−31	CSPH*3012A**	58MV(B,C)060−14	28,000	11.5	14.0
1390476	38HDR030−31	CSPH*3012A**	58MV(B,C)080−14	28,000	11.5	14.0
1390488	38HDR030−31	CSPH*3012A**	58MV(B,C)080−20	28,000	11.5	14.0
1390500	38HDR030−31	CSPH*3012A**	58MV(B,C)100−20	28,000	11.5	14.0
1390508	38HDR030−31	CSPH*3012A**	58MV(B,C)120−20	28,000	11.5	14.0
3015399	38HDR030−31	CSPH*3012A**	58PH*070−16	28,000	11.5	14.0
3015400	38HDR030−31	CSPH*3012A**	58PH*090−16	28,000	11.5	14.0
1085726	38HDR030−31	CSPH*3012A**+TDR		28,000	11.0	13.0
1085764	38HDR030−31	CSPH*3612A**	58CV(A,X)070−12	28,600	11.5	14.0
1085766	38HDR030−31	CSPH*3612A**	58CV(A,X)090−16	28,600	11.5	14.0
1085768	38HDR030−31	CSPH*3612A**	58CV(A,X)110−20	28,600	11.5	14.0
1085770	38HDR030−31	CSPH*3612A**	58CV(A,X)135−22	28,600	11.5	14.0
1085772	38HDR030−31	CSPH*3612A**	58CV(A,X)155−22	28,600	11.5	14.0
3112132	38HDR030−31	CSPH*3612A**	58MEB040−12	28,600	12.0	14.5
3112133	38HDR030−31	CSPH*3612A**	58MEB060−12	28,600	12.0	14.5
3112134	38HDR030−31	CSPH*3612A**	58MEB080−12	28,600	12.0	14.5
3112135	38HDR030−31	CSPH*3612A**	58MEB080−16	28,600	12.0	14.5
1390462	38HDR030−31	CSPH*3612A**	58MV(B,C)060−14	28,600	11.5	14.0
1390478	38HDR030−31	CSPH*3612A**	58MV(B,C)080−14	28,600	11.5	14.0
1390490	38HDR030−31	CSPH*3612A**	58MV(B,C)080−20	28,600	11.5	14.0
1390502	38HDR030−31	CSPH*3612A**	58MV(B,C)100−20	28,600	11.5	14.0
1390510	38HDR030−31	CSPH*3612A**	58MV(B,C)120−20	28,600	11.5	14.0
3015401	38HDR030−31	CSPH*3612A**	58PH*070−16	28,600	12.0	14.5
3015402	38HDR030−31	CSPH*3612A**	58PH*090−16	28,600	12.0	14.5
1085750	38HDR030−31	CSPH*3612A**+TDR		28,600	11.0	13.0
1086240	38HDR030−31	FE4AN(B,F)003+UI		28,600	11.5	14.0
1086242	38HDR030−31	FE4AN(B,F)005+UI		29,000	12.5	15.0
1086238	38HDR030−31	FE4ANF002+UI		28,600	11.5	14.0
1085782	38HDR030−31	FF1ENP030		28,000	11.0	13.0
1085784	38HDR030−31	FF1ENP036		28,600	11.0	13.0
1085786	38HDR030−31	FV4BNF002		28,600	11.5	14.0
3404625	38HDR030−31	FV4CNF002		28,600	11.5	14.0
1085780	38HDR030−31	FX4CN(B,F)036		28,600	11.5	14.0
1085778	38HDR030−31	FX4CNF030		28,000	11.5	14.0
1085774	38HDR030−31	FY4ANF030		28,000	11.0	13.0
1085776	38HDR030−31	FY4ANF036		28,600	11.0	13.0
1085804	38HDR036−31	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117980	38HDR036−31	40QAC036−−−3		33,000	11.4	13.0
1085808	38HDR036−31	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015403	38HDR036−31	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1085806	38HDR036−31	CAP**3614A**+TDR		32,600	11.0	13.0
1085982	38HDR036−31	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1085814	38HDR036−31	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3112136	38HDR036−31	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3112137	38HDR036−31	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3112138	38HDR036−31	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3112139	38HDR036−31	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390512	38HDR036−31	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015404	38HDR036−31	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1085810	38HDR036−31	CAP**3617A**+TDR		33,000	11.0	13.0
1085986	38HDR036−31	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1085824	38HDR036−31	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3112140	38HDR036−31	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390524	38HDR036−31	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390532	38HDR036−31	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390550	38HDR036−31	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390568	38HDR036−31	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015405	38HDR036−31	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015406	38HDR036−31	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1085816	38HDR036−31	CAP**3621A**+TDR		33,000	11.0	13.0
1085990	38HDR036−31	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1085834	38HDR036−31	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3112141	38HDR036−31	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390526	38HDR036−31	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390534	38HDR036−31	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390552	38HDR036−31	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390570	38HDR036−31	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015407	38HDR036−31	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015408	38HDR036−31	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1085826	38HDR036−31	CAP**4221A**+TDR		33,400	11.0	13.0
1085998	38HDR036−31	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1085842	38HDR036−31	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1085844	38HDR036−31	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390548	38HDR036−31	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390566	38HDR036−31	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390584	38HDR036−31	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390586	38HDR036−31	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1085836	38HDR036−31	CAP**4224A**+TDR		33,400	11.0	13.0
1085918	38HDR036−31	CNPF*3618A**+TDR		33,000	11.0	13.0
1085884	38HDR036−31	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1085886	38HDR036−31	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1085888	38HDR036−31	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1085890	38HDR036−31	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1085892	38HDR036−31	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3112156	38HDR036−31	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3112157	38HDR036−31	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3112158	38HDR036−31	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3112159	38HDR036−31	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3112160	38HDR036−31	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390516	38HDR036−31	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390540	38HDR036−31	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390558	38HDR036−31	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5
1390576	38HDR036−31	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390588	38HDR036−31	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015414	38HDR036−31	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015415	38HDR036−31	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015416	38HDR036−31	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015417	38HDR036−31	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1085870	38HDR036−31	CNPH*3617A**+TDR		33,000	11.0	13.0
1085908	38HDR036−31	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1085910	38HDR036−31	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1085912	38HDR036−31	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1085914	38HDR036−31	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1085916	38HDR036−31	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3112161	38HDR036−31	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3112162	38HDR036−31	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3112163	38HDR036−31	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5
3112164	38HDR036−31	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3112165	38HDR036−31	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390518	38HDR036−31	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390542	38HDR036−31	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390560	38HDR036−31	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390578	38HDR036−31	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390590	38HDR036−31	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015418	38HDR036−31	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015419	38HDR036−31	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015420	38HDR036−31	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015421	38HDR036−31	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1085894	38HDR036−31	CNPH*4221A**+TDR		33,400	11.0	13.0
1086000	38HDR036−31	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1085850	38HDR036−31	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3112142	38HDR036−31	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5

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ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3112143	38HDR036−31	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3112144	38HDR036−31	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3112145	38HDR036−31	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390514	38HDR036−31	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015409	38HDR036−31	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1085846	38HDR036−31	CNPV*3617A**+TDR		33,000	11.0	13.0
1086004	38HDR036−31	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1085860	38HDR036−31	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3112146	38HDR036−31	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390528	38HDR036−31	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390536	38HDR036−31	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390554	38HDR036−31	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390572	38HDR036−31	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015410	38HDR036−31	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015411	38HDR036−31	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1085852	38HDR036−31	CNPV*3621A**+TDR		33,000	11.0	13.0
3112149	38HDR036−31	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3112151	38HDR036−31	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3112152	38HDR036−31	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3112153	38HDR036−31	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3112154	38HDR036−31	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3112148	38HDR036−31	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3112150	38HDR036−31	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3112147	38HDR036−31	CNPV*4217A**+TDR		33,400	11.0	13.0
1086008	38HDR036−31	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1085868	38HDR036−31	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3112155	38HDR036−31	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390530	38HDR036−31	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390538	38HDR036−31	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390556	38HDR036−31	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390574	38HDR036−31	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015412	38HDR036−31	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015413	38HDR036−31	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1085934	38HDR036−31	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1085936	38HDR036−31	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1085938	38HDR036−31	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1085940	38HDR036−31	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1085942	38HDR036−31	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3112166	38HDR036−31	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3112167	38HDR036−31	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3112168	38HDR036−31	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3112169	38HDR036−31	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3112170	38HDR036−31	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390520	38HDR036−31	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390544	38HDR036−31	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390562	38HDR036−31	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390580	38HDR036−31	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390592	38HDR036−31	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015422	38HDR036−31	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0
3015423	38HDR036−31	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015424	38HDR036−31	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015425	38HDR036−31	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1085920	38HDR036−31	CSPH*3612A**+TDR		33,000	11.0	13.0
1085958	38HDR036−31	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1085960	38HDR036−31	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1085962	38HDR036−31	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1085964	38HDR036−31	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1085966	38HDR036−31	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3112171	38HDR036−31	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3112172	38HDR036−31	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3112173	38HDR036−31	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3112174	38HDR036−31	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3112175	38HDR036−31	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390522	38HDR036−31	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0
1390546	38HDR036−31	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390564	38HDR036−31	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390582	38HDR036−31	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390594	38HDR036−31	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015426	38HDR036−31	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015427	38HDR036−31	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015428	38HDR036−31	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015429	38HDR036−31	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1085944	38HDR036−31	CSPH*4212A**+TDR		33,400	11.0	13.0
1086246	38HDR036−31	FE4AN(B,F)003+UI		33,000	11.5	14.0
1086248	38HDR036−31	FE4AN(B,F)005+UI		33,400	12.5	15.0
1086250	38HDR036−31	FE4ANB006+UI		33,400	12.5	15.0
1086244	38HDR036−31	FE4ANF002+UI		33,000	11.5	13.5
1085976	38HDR036−31	FF1ENP036		33,000	11.0	13.0
1085980	38HDR036−31	FV4BNB006		33,400	12.5	15.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1085978	38HDR036−31	FV4BNF002		33,000	11.5	13.5
3404627	38HDR036−31	FV4CNB006		33,400	12.5	15.0
3404626	38HDR036−31	FV4CNF002		33,000	11.5	13.5
1085972	38HDR036−31	FX4CN(B,F)036		33,000	11.5	14.0
1085974	38HDR036−31	FX4CN(B,F)042		33,400	11.5	14.0
1085968	38HDR036−31	FY4ANF036		33,000	11.0	13.0
1085970	38HDR036−31	FY4ANF042		33,400	11.0	13.0
1117042	38HDR036−51	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117982	38HDR036−51	40QAC036−−−3		33,000	11.4	13.0
1117046	38HDR036−51	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015466	38HDR036−51	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1117044	38HDR036−51	CAP**3614A**+TDR		32,600	11.0	13.0
1117228	38HDR036−51	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117052	38HDR036−51	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0
3116284	38HDR036−51	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3116285	38HDR036−51	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3116286	38HDR036−51	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3116287	38HDR036−51	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390596	38HDR036−51	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015467	38HDR036−51	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1117048	38HDR036−51	CAP**3617A**+TDR		33,000	11.0	13.0
1117232	38HDR036−51	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1145786	38HDR036−51	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3116288	38HDR036−51	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390602	38HDR036−51	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390616	38HDR036−51	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390634	38HDR036−51	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390658	38HDR036−51	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015468	38HDR036−51	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015469	38HDR036−51	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1117054	38HDR036−51	CAP**3621A**+TDR		33,000	11.0	13.0
1117236	38HDR036−51	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1145796	38HDR036−51	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3116289	38HDR036−51	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390604	38HDR036−51	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390624	38HDR036−51	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390642	38HDR036−51	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390660	38HDR036−51	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015470	38HDR036−51	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015471	38HDR036−51	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1145788	38HDR036−51	CAP**4221A**+TDR		33,400	11.0	13.0
1117244	38HDR036−51	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1145804	38HDR036−51	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1145806	38HDR036−51	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390622	38HDR036−51	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390640	38HDR036−51	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390656	38HDR036−51	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390674	38HDR036−51	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1145798	38HDR036−51	CAP**4224A**+TDR		33,400	11.0	13.0
1117156	38HDR036−51	CNPF*3618A**+TDR		33,000	11.0	13.0
1145846	38HDR036−51	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1145848	38HDR036−51	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1145850	38HDR036−51	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1145852	38HDR036−51	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1145854	38HDR036−51	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3116304	38HDR036−51	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3116305	38HDR036−51	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3116306	38HDR036−51	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3116307	38HDR036−51	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3116308	38HDR036−51	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390612	38HDR036−51	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390630	38HDR036−51	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390648	38HDR036−51	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5
1390666	38HDR036−51	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390676	38HDR036−51	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015477	38HDR036−51	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015478	38HDR036−51	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015479	38HDR036−51	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015480	38HDR036−51	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1145832	38HDR036−51	CNPH*3617A**+TDR		33,000	11.0	13.0
1145870	38HDR036−51	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1145872	38HDR036−51	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1145874	38HDR036−51	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1117152	38HDR036−51	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1117154	38HDR036−51	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3116309	38HDR036−51	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3116310	38HDR036−51	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3116311	38HDR036−51	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3116312	38HDR036−51	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3116313	38HDR036−51	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390614	38HDR036−51	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390632	38HDR036−51	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390650	38HDR036−51	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390668	38HDR036−51	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390678	38HDR036−51	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015481	38HDR036−51	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015482	38HDR036−51	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015483	38HDR036−51	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015484	38HDR036−51	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1145856	38HDR036−51	CNPH*4221A**+TDR		33,400	11.0	13.0
1117246	38HDR036−51	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1145812	38HDR036−51	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3116290	38HDR036−51	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5
3116291	38HDR036−51	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3116292	38HDR036−51	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3116293	38HDR036−51	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390610	38HDR036−51	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015472	38HDR036−51	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1145808	38HDR036−51	CNPV*3617A**+TDR		33,000	11.0	13.0
1117250	38HDR036−51	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1145822	38HDR036−51	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3116294	38HDR036−51	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390606	38HDR036−51	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390626	38HDR036−51	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390644	38HDR036−51	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390662	38HDR036−51	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015473	38HDR036−51	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015474	38HDR036−51	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1145814	38HDR036−51	CNPV*3621A**+TDR		33,000	11.0	13.0
3116297	38HDR036−51	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3116299	38HDR036−51	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3116300	38HDR036−51	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3116301	38HDR036−51	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3116302	38HDR036−51	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3116296	38HDR036−51	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3116298	38HDR036−51	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3116295	38HDR036−51	CNPV*4217A**+TDR		33,400	11.0	13.0
1117254	38HDR036−51	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1145830	38HDR036−51	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3116303	38HDR036−51	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390608	38HDR036−51	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390628	38HDR036−51	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390646	38HDR036−51	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390664	38HDR036−51	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015475	38HDR036−51	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015476	38HDR036−51	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1117172	38HDR036−51	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1117174	38HDR036−51	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1117176	38HDR036−51	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1117178	38HDR036−51	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1117180	38HDR036−51	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3116314	38HDR036−51	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3116315	38HDR036−51	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3116316	38HDR036−51	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3116317	38HDR036−51	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3116318	38HDR036−51	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390598	38HDR036−51	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390618	38HDR036−51	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390636	38HDR036−51	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390652	38HDR036−51	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390670	38HDR036−51	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015485	38HDR036−51	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0
3015486	38HDR036−51	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015487	38HDR036−51	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015488	38HDR036−51	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1117158	38HDR036−51	CSPH*3612A**+TDR		33,000	11.0	13.0
1117196	38HDR036−51	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1117198	38HDR036−51	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1117200	38HDR036−51	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1117202	38HDR036−51	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1117204	38HDR036−51	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3116319	38HDR036−51	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3116320	38HDR036−51	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3116321	38HDR036−51	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3116322	38HDR036−51	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3116323	38HDR036−51	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390600	38HDR036−51	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1390620	38HDR036−51	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390638	38HDR036−51	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390654	38HDR036−51	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390672	38HDR036−51	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015489	38HDR036−51	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015490	38HDR036−51	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015491	38HDR036−51	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015492	38HDR036−51	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1117182	38HDR036−51	CSPH*4212A**+TDR		33,400	11.0	13.0
1117216	38HDR036−51	FE4AN(B,F)003+UI		33,000	11.5	14.0
1117218	38HDR036−51	FE4AN(B,F)005+UI		33,400	12.5	15.0
1117220	38HDR036−51	FE4ANB006+UI		33,400	12.5	15.0
1117214	38HDR036−51	FE4ANF002+UI		33,000	11.5	13.5
1117222	38HDR036−51	FF1ENP036		33,000	11.0	13.0
1117226	38HDR036−51	FV4BNB006		33,400	12.5	15.0
1117224	38HDR036−51	FV4BNF002		33,000	11.5	13.5
3404631	38HDR036−51	FV4CNB006		33,400	12.5	15.0
3404630	38HDR036−51	FV4CNF002		33,000	11.5	13.5
1117210	38HDR036−51	FX4CN(B,F)036		33,000	11.5	14.0
1117212	38HDR036−51	FX4CN(B,F)042		33,400	11.5	14.0
1117206	38HDR036−51	FY4ANF036		33,000	11.0	13.0
1117208	38HDR036−51	FY4ANF042		33,400	11.0	13.0
1117484	38HDR036−61	†CNPV*4221A**+TDR		33,400	11.0	13.0
1117984	38HDR036−61	40QAC036−−−3		33,000	11.4	13.0
1117488	38HDR036−61	CAP**3614A**	58CV(A,X)070−12	32,600	11.5	13.5
3015493	38HDR036−61	CAP**3614A**	58PH*045−08	33,000	11.5	14.0
1117486	38HDR036−61	CAP**3614A**+TDR		32,600	11.0	13.0
1117670	38HDR036−61	CAP**3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117494	38HDR036−61	CAP**3617A**	58CV(A,X)090−16	33,000	11.5	14.0
3116353	38HDR036−61	CAP**3617A**	58MEB040−12	33,000	12.0	14.5
3116354	38HDR036−61	CAP**3617A**	58MEB060−12	33,000	12.0	14.5
3116355	38HDR036−61	CAP**3617A**	58MEB080−12	33,000	12.0	14.5
3116356	38HDR036−61	CAP**3617A**	58MEB080−16	33,000	12.0	14.5
1390680	38HDR036−61	CAP**3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015494	38HDR036−61	CAP**3617A**	58PH*070−16	33,000	11.5	14.0
1117490	38HDR036−61	CAP**3617A**+TDR		33,000	11.0	13.0
1117674	38HDR036−61	CAP**3621A**	58CV(A,X)090−16	33,000	11.5	14.0
1117504	38HDR036−61	CAP**3621A**	58CV(A,X)110−20	33,000	11.5	14.0
3116357	38HDR036−61	CAP**3621A**	58MEB100−20	33,000	12.0	14.5
1390692	38HDR036−61	CAP**3621A**	58MV(B,C)060−14	33,000	11.5	14.0
1390700	38HDR036−61	CAP**3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390718	38HDR036−61	CAP**3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390736	38HDR036−61	CAP**3621A**	58MV(B,C)100−20	33,000	11.5	14.0
3015495	38HDR036−61	CAP**3621A**	58PH*090−16	33,000	12.0	14.5
3015496	38HDR036−61	CAP**3621A**	58PH*110−20	33,000	12.0	14.5
1117496	38HDR036−61	CAP**3621A**+TDR		33,000	11.0	13.0
1117678	38HDR036−61	CAP**4221A**	58CV(A,X)090−16	33,400	11.5	14.0
1117514	38HDR036−61	CAP**4221A**	58CV(A,X)110−20	33,400	11.5	14.0
3116358	38HDR036−61	CAP**4221A**	58MEB100−20	33,400	12.0	14.5
1390694	38HDR036−61	CAP**4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390702	38HDR036−61	CAP**4221A**	58MV(B,C)080−14	33,400	11.5	13.5
1390720	38HDR036−61	CAP**4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390738	38HDR036−61	CAP**4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015497	38HDR036−61	CAP**4221A**	58PH*090−16	33,400	12.0	14.5
3015498	38HDR036−61	CAP**4221A**	58PH*110−20	33,400	12.0	14.5
1117506	38HDR036−61	CAP**4221A**+TDR		33,400	11.0	13.0
1117686	38HDR036−61	CAP**4224A**	58CV(A,X)110−20	33,400	11.5	14.0
1117522	38HDR036−61	CAP**4224A**	58CV(A,X)135−22	33,400	11.5	14.0
1117524	38HDR036−61	CAP**4224A**	58CV(A,X)155−22	33,400	11.5	14.0
1390716	38HDR036−61	CAP**4224A**	58MV(B,C)080−14	33,400	11.5	14.0
1390734	38HDR036−61	CAP**4224A**	58MV(B,C)080−20	33,400	11.5	14.0
1390752	38HDR036−61	CAP**4224A**	58MV(B,C)100−20	33,400	11.5	14.0
1390754	38HDR036−61	CAP**4224A**	58MV(B,C)120−20	33,400	11.5	13.5
1117516	38HDR036−61	CAP**4224A**+TDR		33,400	11.0	13.0
1117598	38HDR036−61	CNPF*3618A**+TDR		33,000	11.0	13.0
1117564	38HDR036−61	CNPH*3617A**	58CV(A,X)070−12	33,000	11.5	13.5
1117566	38HDR036−61	CNPH*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
1117568	38HDR036−61	CNPH*3617A**	58CV(A,X)110−20	33,000	11.5	13.5
1117570	38HDR036−61	CNPH*3617A**	58CV(A,X)135−22	33,000	11.5	13.5
1117572	38HDR036−61	CNPH*3617A**	58CV(A,X)155−22	33,000	11.5	14.0
3116373	38HDR036−61	CNPH*3617A**	58MEB040−12	33,000	12.0	14.5
3116374	38HDR036−61	CNPH*3617A**	58MEB060−12	33,000	12.0	14.5
3116375	38HDR036−61	CNPH*3617A**	58MEB080−12	33,000	12.0	14.5
3116376	38HDR036−61	CNPH*3617A**	58MEB080−16	33,000	12.0	14.5
3116377	38HDR036−61	CNPH*3617A**	58MEB100−20	33,000	12.0	14.5
1390684	38HDR036−61	CNPH*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
1390708	38HDR036−61	CNPH*3617A**	58MV(B,C)080−14	33,000	11.5	13.5
1390726	38HDR036−61	CNPH*3617A**	58MV(B,C)080−20	33,000	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
1390744	38HDR036−61	CNPH*3617A**	58MV(B,C)100−20	33,000	11.5	13.5
1390756	38HDR036−61	CNPH*3617A**	58MV(B,C)120−20	33,000	11.5	13.5
3015504	38HDR036−61	CNPH*3617A**	58PH*045−08	33,000	11.5	14.0
3015505	38HDR036−61	CNPH*3617A**	58PH*070−16	33,000	11.5	14.0
3015506	38HDR036−61	CNPH*3617A**	58PH*090−16	33,000	12.0	14.5
3015507	38HDR036−61	CNPH*3617A**	58PH*110−20	33,000	12.0	14.5
1117550	38HDR036−61	CNPH*3617A**+TDR		33,000	11.0	13.0
1117588	38HDR036−61	CNPH*4221A**	58CV(A,X)070−12	33,400	11.5	14.0
1117590	38HDR036−61	CNPH*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1117592	38HDR036−61	CNPH*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
1117594	38HDR036−61	CNPH*4221A**	58CV(A,X)135−22	33,400	11.5	14.5
1117596	38HDR036−61	CNPH*4221A**	58CV(A,X)155−22	33,400	11.5	14.5
3116378	38HDR036−61	CNPH*4221A**	58MEB040−12	33,400	12.0	14.5
3116379	38HDR036−61	CNPH*4221A**	58MEB060−12	33,400	12.0	14.5
3116380	38HDR036−61	CNPH*4221A**	58MEB080−12	33,400	12.0	14.5
3116381	38HDR036−61	CNPH*4221A**	58MEB080−16	33,400	12.0	14.5
3116382	38HDR036−61	CNPH*4221A**	58MEB100−20	33,400	12.0	14.5
1390686	38HDR036−61	CNPH*4221A**	58MV(B,C)060−14	33,400	11.5	14.0
1390710	38HDR036−61	CNPH*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390728	38HDR036−61	CNPH*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390746	38HDR036−61	CNPH*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
1390758	38HDR036−61	CNPH*4221A**	58MV(B,C)120−20	33,400	11.5	14.5
3015508	38HDR036−61	CNPH*4221A**	58PH*045−08	33,400	11.5	14.0
3015509	38HDR036−61	CNPH*4221A**	58PH*070−16	33,400	11.5	14.0
3015510	38HDR036−61	CNPH*4221A**	58PH*090−16	33,400	12.0	14.5
3015511	38HDR036−61	CNPH*4221A**	58PH*110−20	33,400	12.0	14.5
1117574	38HDR036−61	CNPH*4221A**+TDR		33,400	11.0	13.0
1117688	38HDR036−61	CNPV*3617A**	58CV(A,X)070−12	33,000	11.5	14.0
1117530	38HDR036−61	CNPV*3617A**	58CV(A,X)090−16	33,000	11.5	13.5
3116359	38HDR036−61	CNPV*3617A**	58MEB040−12	33,000	12.0	14.5
3116360	38HDR036−61	CNPV*3617A**	58MEB060−12	33,000	12.0	14.5
3116361	38HDR036−61	CNPV*3617A**	58MEB080−12	33,000	12.0	14.5
3116362	38HDR036−61	CNPV*3617A**	58MEB080−16	33,000	12.0	14.5
1390682	38HDR036−61	CNPV*3617A**	58MV(B,C)060−14	33,000	11.5	13.5
3015499	38HDR036−61	CNPV*3617A**	58PH*070−16	33,000	11.5	14.0
1117526	38HDR036−61	CNPV*3617A**+TDR		33,000	11.0	13.0
1117692	38HDR036−61	CNPV*3621A**	58CV(A,X)090−16	33,000	11.5	14.5
1117540	38HDR036−61	CNPV*3621A**	58CV(A,X)110−20	33,000	11.5	13.5
3116363	38HDR036−61	CNPV*3621A**	58MEB100−20	33,000	12.0	14.5
1390696	38HDR036−61	CNPV*3621A**	58MV(B,C)060−14	33,000	11.5	14.5
1390704	38HDR036−61	CNPV*3621A**	58MV(B,C)080−14	33,000	11.5	13.5
1390722	38HDR036−61	CNPV*3621A**	58MV(B,C)080−20	33,000	11.5	13.5
1390740	38HDR036−61	CNPV*3621A**	58MV(B,C)100−20	33,000	11.5	13.5
3015500	38HDR036−61	CNPV*3621A**	58PH*090−16	33,000	12.0	14.5
3015501	38HDR036−61	CNPV*3621A**	58PH*110−20	33,000	12.0	14.5
1117532	38HDR036−61	CNPV*3621A**+TDR		33,000	11.0	13.0
3116366	38HDR036−61	CNPV*4217A**	58CV(A,X)090−16	33,400	12.0	14.5
3116368	38HDR036−61	CNPV*4217A**	58MEB040−12	33,400	12.0	14.5
3116369	38HDR036−61	CNPV*4217A**	58MEB060−12	33,400	12.0	14.5
3116370	38HDR036−61	CNPV*4217A**	58MEB080−12	33,400	12.0	14.5
3116371	38HDR036−61	CNPV*4217A**	58MEB080−16	33,400	12.0	14.5
3116365	38HDR036−61	CNPV*4217A**	58MV(B,C)060−14	33,400	12.0	14.5
3116367	38HDR036−61	CNPV*4217A**	58PH*070−16	33,400	12.0	14.5
3116364	38HDR036−61	CNPV*4217A**+TDR		33,400	11.0	13.0
1117696	38HDR036−61	CNPV*4221A**	58CV(A,X)090−16	33,400	11.5	14.5
1117548	38HDR036−61	CNPV*4221A**	58CV(A,X)110−20	33,400	11.5	14.5
3116372	38HDR036−61	CNPV*4221A**	58MEB100−20	33,400	12.0	14.5
1390698	38HDR036−61	CNPV*4221A**	58MV(B,C)060−14	33,400	11.5	14.5
1390706	38HDR036−61	CNPV*4221A**	58MV(B,C)080−14	33,400	11.5	14.0
1390724	38HDR036−61	CNPV*4221A**	58MV(B,C)080−20	33,400	11.5	14.0
1390742	38HDR036−61	CNPV*4221A**	58MV(B,C)100−20	33,400	11.5	14.0
3015502	38HDR036−61	CNPV*4221A**	58PH*090−16	33,400	12.0	14.5
3015503	38HDR036−61	CNPV*4221A**	58PH*110−20	33,400	12.0	14.5
1117614	38HDR036−61	CSPH*3612A**	58CV(A,X)070−12	33,000	11.5	14.0
1117616	38HDR036−61	CSPH*3612A**	58CV(A,X)090−16	33,000	11.5	14.5
1117618	38HDR036−61	CSPH*3612A**	58CV(A,X)110−20	33,000	11.5	14.5
1117620	38HDR036−61	CSPH*3612A**	58CV(A,X)135−22	33,000	11.5	14.5
1117622	38HDR036−61	CSPH*3612A**	58CV(A,X)155−22	33,000	11.5	14.5
3116383	38HDR036−61	CSPH*3612A**	58MEB040−12	33,000	12.0	14.5
3116384	38HDR036−61	CSPH*3612A**	58MEB060−12	33,000	12.0	14.5
3116385	38HDR036−61	CSPH*3612A**	58MEB080−12	33,000	12.0	14.5
3116386	38HDR036−61	CSPH*3612A**	58MEB080−16	33,000	12.0	14.5
3116387	38HDR036−61	CSPH*3612A**	58MEB100−20	33,000	12.0	14.5
1390688	38HDR036−61	CSPH*3612A**	58MV(B,C)060−14	33,000	11.5	14.5
1390712	38HDR036−61	CSPH*3612A**	58MV(B,C)080−14	33,000	11.5	14.0
1390730	38HDR036−61	CSPH*3612A**	58MV(B,C)080−20	33,000	11.5	14.0
1390748	38HDR036−61	CSPH*3612A**	58MV(B,C)100−20	33,000	11.5	14.5
1390760	38HDR036−61	CSPH*3612A**	58MV(B,C)120−20	33,000	11.5	14.5
3015512	38HDR036−61	CSPH*3612A**	58PH*045−08	33,000	11.5	14.0

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3015513	38HDR036−61	CSPH*3612A**	58PH*070−16	33,000	11.5	14.0
3015514	38HDR036−61	CSPH*3612A**	58PH*090−16	33,000	12.0	14.5
3015515	38HDR036−61	CSPH*3612A**	58PH*110−20	33,000	12.0	14.5
1117600	38HDR036−61	CSPH*3612A**+TDR		33,000	11.0	13.0
1117638	38HDR036−61	CSPH*4212A**	58CV(A,X)070−12	33,400	11.5	14.0
1117640	38HDR036−61	CSPH*4212A**	58CV(A,X)090−16	33,400	11.5	14.5
1117642	38HDR036−61	CSPH*4212A**	58CV(A,X)110−20	33,400	11.5	14.5
1117644	38HDR036−61	CSPH*4212A**	58CV(A,X)135−22	33,400	11.5	14.5
1117646	38HDR036−61	CSPH*4212A**	58CV(A,X)155−22	33,400	11.5	14.5
3116388	38HDR036−61	CSPH*4212A**	58MEB040−12	33,400	12.0	14.5
3116389	38HDR036−61	CSPH*4212A**	58MEB060−12	33,400	12.0	14.5
3116390	38HDR036−61	CSPH*4212A**	58MEB080−12	33,400	12.0	14.5
3116391	38HDR036−61	CSPH*4212A**	58MEB080−16	33,400	12.0	14.5
3116392	38HDR036−61	CSPH*4212A**	58MEB100−20	33,400	12.0	14.5
1390690	38HDR036−61	CSPH*4212A**	58MV(B,C)060−14	33,400	11.5	14.0
1390714	38HDR036−61	CSPH*4212A**	58MV(B,C)080−14	33,400	11.5	14.0
1390732	38HDR036−61	CSPH*4212A**	58MV(B,C)080−20	33,400	11.5	14.0
1390750	38HDR036−61	CSPH*4212A**	58MV(B,C)100−20	33,400	11.5	14.0
1390762	38HDR036−61	CSPH*4212A**	58MV(B,C)120−20	33,400	11.5	14.0
3015516	38HDR036−61	CSPH*4212A**	58PH*045−08	33,400	11.5	14.0
3015517	38HDR036−61	CSPH*4212A**	58PH*070−16	33,400	11.5	14.0
3015518	38HDR036−61	CSPH*4212A**	58PH*090−16	33,400	12.0	14.5
3015519	38HDR036−61	CSPH*4212A**	58PH*110−20	33,400	12.0	14.5
1117624	38HDR036−61	CSPH*4212A**+TDR		33,400	11.0	13.0
1117658	38HDR036−61	FE4AN(B,F)003+UI		33,000	11.5	14.0
1117660	38HDR036−61	FE4AN(B,F)005+UI		33,400	12.5	15.0
1117662	38HDR036−61	FE4ANB006+UI		33,400	12.5	15.0
1117656	38HDR036−61	FE4ANF002+UI		33,000	11.5	13.5
1117664	38HDR036−61	FF1ENP036		33,000	11.0	13.0
1117668	38HDR036−61	FV4BNB006		33,400	12.5	15.0
1117666	38HDR036−61	FV4BNF002		33,000	11.5	13.5
3404635	38HDR036−61	FV4CNB006		33,400	12.5	15.0
3404634	38HDR036−61	FV4CNF002		33,000	11.5	13.5
1117652	38HDR036−61	FX4CN(B,F)036		33,000	11.5	14.0
1117654	38HDR036−61	FX4CN(B,F)042		33,400	11.5	14.0
1117648	38HDR036−61	FY4ANF036		33,000	11.0	13.0
1117650	38HDR036−61	FY4ANF042		33,400	11.0	13.0
3465144	38HDR048−32	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465807	38HDR048−32	40QAC048−3		45,500	11.5	13.0
3465146	38HDR048−32	CAP**4817A**	58CV(A,X)090−16	46,500	11.5	13.5
3465148	38HDR048−32	CAP**4817A**	58MEB080−16	46,500	11.5	14.0
3465147	38HDR048−32	CAP**4817A**	58PH*070−16	46,500	11.5	13.5
3465145	38HDR048−32	CAP**4817A**+TDR		46,500	11.0	13.0
3465152	38HDR048−32	CAP**4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465155	38HDR048−32	CAP**4821A**	58MEB100−20	46,500	11.5	14.0
3465150	38HDR048−32	CAP**4821A**	58MV(B,C)080−20	46,000	11.5	13.5
3465151	38HDR048−32	CAP**4821A**	58MV(B,C)100−20	46,500	11.5	13.5
3465153	38HDR048−32	CAP**4821A**	58PH*090−16	46,500	11.5	14.0
3465154	38HDR048−32	CAP**4821A**	58PH*110−20	46,500	11.5	14.0
3465149	38HDR048−32	CAP**4821A**+TDR		47,000	11.0	13.0
3465158	38HDR048−32	CAP**4824A**	58CV(A,X)135−22	46,500	11.5	13.5
3465159	38HDR048−32	CAP**4824A**	58CV(A,X)155−22	46,500	11.5	13.5
3465161	38HDR048−32	CAP**4824A**	58MEB120−20	46,500	11.5	14.0
3465157	38HDR048−32	CAP**4824A**	58MV(B,C)120−20	46,500	11.5	13.5
3465160	38HDR048−32	CAP**4824A**	58PH*135−20	46,500	11.5	14.0
3465156	38HDR048−32	CAP**4824A**+TDR		47,000	11.0	13.0
3465165	38HDR048−32	CAP**6021A**	58CV(A,X)110−20	47,000	11.5	13.5
3465168	38HDR048−32	CAP**6021A**	58MEB100−20	47,000	12.0	14.5
3465163	38HDR048−32	CAP**6021A**	58MV(B,C)080−20	47,000	11.5	13.5
3465164	38HDR048−32	CAP**6021A**	58MV(B,C)100−20	47,000	11.5	13.5
3465166	38HDR048−32	CAP**6021A**	58PH*090−16	47,000	12.0	14.5
3465167	38HDR048−32	CAP**6021A**	58PH*110−20	47,000	12.0	14.5
3465162	38HDR048−32	CAP**6021A**+TDR		47,500	11.0	13.0
3465171	38HDR048−32	CAP**6024A**	58CV(A,X)135−22	47,000	11.5	13.5
3465172	38HDR048−32	CAP**6024A**	58CV(A,X)155−22	47,000	11.5	14.0
3465174	38HDR048−32	CAP**6024A**	58MEB120−20	47,000	12.0	14.5
3465170	38HDR048−32	CAP**6024A**	58MV(B,C)120−20	47,000	11.5	13.5
3465173	38HDR048−32	CAP**6024A**	58PH*135−20	47,000	12.0	14.5
3465169	38HDR048−32	CAP**6024A**+TDR		47,500	11.0	13.0
3465221	38HDR048−32	CNPF*4818A**+TDR		46,000	11.0	13.0
3465197	38HDR048−32	CNPH*4821A**	58CV(A,X)090−16	46,500	11.5	13.5
3465198	38HDR048−32	CNPH*4821A**	58CV(A,X)110−20	46,500	11.5	13.5
3465199	38HDR048−32	CNPH*4821A**	58CV(A,X)135−22	46,500	11.5	13.5
3465200	38HDR048−32	CNPH*4821A**	58CV(A,X)155−22	46,500	11.5	13.5
3465204	38HDR048−32	CNPH*4821A**	58MEB080−16	46,500	11.5	14.0
3465205	38HDR048−32	CNPH*4821A**	58MEB100−20	46,500	11.5	14.0
3465206	38HDR048−32	CNPH*4821A**	58MEB120−20	46,500	11.5	14.0
3465194	38HDR048−32	CNPH*4821A**	58MV(B,C)080−20	46,500	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465195	38HDR048–32	CNPH*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465196	38HDR048–32	CNPH*4821A**	58MV(B,C)120–20	46,500	11.5	13.5
3465201	38HDR048–32	CNPH*4821A**	58PH*090–16	46,500	11.5	13.5
3465202	38HDR048–32	CNPH*4821A**	58PH*110–20	46,500	11.5	13.5
3465203	38HDR048–32	CNPH*4821A**	58PH*135–20	46,500	11.5	13.5
3465193	38HDR048–32	CNPH*4821A**+TDR		47,000	11.0	13.0
3465211	38HDR048–32	CNPH*6024A**	58CV(A,X)090–16	47,000	11.5	13.5
3465212	38HDR048–32	CNPH*6024A**	58CV(A,X)110–20	47,000	11.5	13.5
3465213	38HDR048–32	CNPH*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465214	38HDR048–32	CNPH*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465218	38HDR048–32	CNPH*6024A**	58MEB080–16	47,000	11.5	14.0
3465219	38HDR048–32	CNPH*6024A**	58MEB100–20	47,000	12.0	14.5
3465220	38HDR048–32	CNPH*6024A**	58MEB120–20	47,000	12.0	14.5
3465208	38HDR048–32	CNPH*6024A**	58MV(B,C)080–20	47,000	11.5	13.5
3465209	38HDR048–32	CNPH*6024A**	58MV(B,C)100–20	47,000	11.5	13.5
3465210	38HDR048–32	CNPH*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465215	38HDR048–32	CNPH*6024A**	58PH*090–16	47,000	12.0	14.5
3465216	38HDR048–32	CNPH*6024A**	58PH*110–20	47,000	12.0	14.5
3465217	38HDR048–32	CNPH*6024A**	58PH*135–20	47,000	12.0	14.5
3465207	38HDR048–32	CNPH*6024A**+TDR		47,500	11.0	13.0
3465177	38HDR048–32	CNPV*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465180	38HDR048–32	CNPV*4821A**	58MEB100–20	46,500	11.5	13.5
3465175	38HDR048–32	CNPV*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465176	38HDR048–32	CNPV*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465178	38HDR048–32	CNPV*4821A**	58PH*090–16	46,500	11.5	14.0
3465179	38HDR048–32	CNPV*4821A**	58PH*110–20	46,500	11.5	14.0
3465183	38HDR048–32	CNPV*4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465184	38HDR048–32	CNPV*4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465186	38HDR048–32	CNPV*4824A**	58MEB120–20	46,500	11.5	14.0
3465182	38HDR048–32	CNPV*4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465185	38HDR048–32	CNPV*4824A**	58PH*135–20	46,500	11.5	14.0
3465181	38HDR048–32	CNPV*4824A**+TDR		47,000	11.0	13.0
3465189	38HDR048–32	CNPV*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465190	38HDR048–32	CNPV*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465192	38HDR048–32	CNPV*6024A**	58MEB120–20	47,000	12.0	14.5
3465188	38HDR048–32	CNPV*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465191	38HDR048–32	CNPV*6024A**	58PH*135–20	47,000	12.0	14.5
3465187	38HDR048–32	CNPV*6024A**+TDR		47,500	11.0	13.0
3465226	38HDR048–32	CSPH*4812A**	58CV(A,X)090–16	46,500	11.5	13.5
3465227	38HDR048–32	CSPH*4812A**	58CV(A,X)110–20	46,500	11.5	13.5
3465228	38HDR048–32	CSPH*4812A**	58CV(A,X)135–22	46,500	11.5	13.5
3465229	38HDR048–32	CSPH*4812A**	58CV(A,X)155–22	46,500	11.5	13.5
3465233	38HDR048–32	CSPH*4812A**	58MEB080–16	46,500	11.5	14.0
3465234	38HDR048–32	CSPH*4812A**	58MEB100–20	46,500	11.5	14.0
3465235	38HDR048–32	CSPH*4812A**	58MEB120–20	46,500	11.5	14.0
3465223	38HDR048–32	CSPH*4812A**	58MV(B,C)080–20	46,500	11.5	13.5
3465224	38HDR048–32	CSPH*4812A**	58MV(B,C)100–20	46,500	11.5	13.5
3465225	38HDR048–32	CSPH*4812A**	58MV(B,C)120–20	46,500	11.5	13.5
3465230	38HDR048–32	CSPH*4812A**	58PH*090–16	46,500	11.5	14.0
3465231	38HDR048–32	CSPH*4812A**	58PH*110–20	46,500	11.5	14.0
3465232	38HDR048–32	CSPH*4812A**	58PH*135–20	46,500	11.5	14.0
3465222	38HDR048–32	CSPH*4812A**+TDR		47,000	11.0	13.0
3465240	38HDR048–32	CSPH*6012A**	58CV(A,X)090–16	47,000	11.5	13.5
3465241	38HDR048–32	CSPH*6012A**	58CV(A,X)110–20	47,000	11.5	14.0
3465242	38HDR048–32	CSPH*6012A**	58CV(A,X)135–22	47,000	11.5	14.0
3465243	38HDR048–32	CSPH*6012A**	58CV(A,X)155–22	47,000	11.5	14.0
3465247	38HDR048–32	CSPH*6012A**	58MEB080–16	47,000	12.0	14.5
3465248	38HDR048–32	CSPH*6012A**	58MEB100–20	47,000	12.0	14.5
3465249	38HDR048–32	CSPH*6012A**	58MEB120–20	47,000	12.0	14.5
3465237	38HDR048–32	CSPH*6012A**	58MV(B,C)080–20	47,000	11.5	13.5
3465238	38HDR048–32	CSPH*6012A**	58MV(B,C)100–20	47,000	11.5	13.5
3465239	38HDR048–32	CSPH*6012A**	58MV(B,C)120–20	47,000	11.5	13.5
3465244	38HDR048–32	CSPH*6012A**	58PH*090–16	47,000	12.0	14.5
3465245	38HDR048–32	CSPH*6012A**	58PH*110–20	47,000	12.0	14.5
3465246	38HDR048–32	CSPH*6012A**	58PH*135–20	47,000	12.0	14.5
3465236	38HDR048–32	CSPH*6012A**+TDR		47,500	11.0	13.0
3465254	38HDR048–32	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465255	38HDR048–32	FE4ANB006+UI		47,500	11.5	14.0
3465256	38HDR048–32	FV4BN(B,F)005		47,000	11.5	14.0
3465257	38HDR048–32	FV4BNB006		47,500	11.5	14.0
3465252	38HDR048–32	FX4CN(B,F)048		47,000	11.5	13.5
3465253	38HDR048–32	FX4CN(B,F)060		47,500	11.5	14.0
3465251	38HDR048–32	FY4ANB060		47,500	11.0	13.0
3465250	38HDR048–32	FY4ANF048		47,000	11.0	13.0
3465258	38HDR048–52	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465808	38HDR048–52	40QAC048–3		45,500	11.5	13.0
3465260	38HDR048–52	CAP**4817A**	58CV(A,X)090–16	46,500	11.5	13.5
3465262	38HDR048–52	CAP**4817A**	58MEB080–16	46,500	11.5	14.0

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ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465261	38HDR048–52	CAP**4817A**	58PH*070–16	46,500	11.5	13.5
3465259	38HDR048–52	CAP**4817A**+TDR		46,500	11.0	13.0
3465266	38HDR048–52	CAP**4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465269	38HDR048–52	CAP**4821A**	58MEB100–20	46,500	11.5	14.0
3465264	38HDR048–52	CAP**4821A**	58MV(B,C)080–20	46,000	11.5	13.5
3465265	38HDR048–52	CAP**4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465267	38HDR048–52	CAP**4821A**	58PH*090–16	46,500	11.5	14.0
3465268	38HDR048–52	CAP**4821A**	58PH*110–20	46,500	11.5	14.0
3465263	38HDR048–52	CAP**4821A**+TDR		47,000	11.0	13.0
3465272	38HDR048–52	CAP**4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465273	38HDR048–52	CAP**4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465275	38HDR048–52	CAP**4824A**	58MEB120–20	46,500	11.5	14.0
3465271	38HDR048–52	CAP**4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465274	38HDR048–52	CAP**4824A**	58PH*135–20	46,500	11.5	14.0
3465270	38HDR048–52	CAP**4824A**+TDR		47,000	11.0	13.0
3465279	38HDR048–52	CAP**6021A**	58CV(A,X)110–20	47,000	11.5	13.5
3465282	38HDR048–52	CAP**6021A**	58MEB100–20	47,000	12.0	14.5
3465277	38HDR048–52	CAP**6021A**	58MV(B,C)080–20	47,000	11.5	13.5
3465278	38HDR048–52	CAP**6021A**	58MV(B,C)100–20	47,000	11.5	13.5
3465280	38HDR048–52	CAP**6021A**	58PH*090–16	47,000	12.0	14.5
3465281	38HDR048–52	CAP**6021A**	58PH*110–20	47,000	12.0	14.5
3465276	38HDR048–52	CAP**6021A**+TDR		47,500	11.0	13.0
3465285	38HDR048–52	CAP**6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465286	38HDR048–52	CAP**6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465288	38HDR048–52	CAP**6024A**	58MEB120–20	47,000	12.0	14.5
3465284	38HDR048–52	CAP**6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465287	38HDR048–52	CAP**6024A**	58PH*135–20	47,000	12.0	14.5
3465283	38HDR048–52	CAP**6024A**+TDR		47,500	11.0	13.0
3465335	38HDR048–52	CNPF*4818A**+TDR		46,000	11.0	13.0
3465311	38HDR048–52	CNPH*4821A**	58CV(A,X)090–16	46,500	11.5	13.5
3465312	38HDR048–52	CNPH*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465313	38HDR048–52	CNPH*4821A**	58CV(A,X)135–22	46,500	11.5	13.5
3465314	38HDR048–52	CNPH*4821A**	58CV(A,X)155–22	46,500	11.5	13.5
3465318	38HDR048–52	CNPH*4821A**	58MEB080–16	46,500	11.5	14.0
3465319	38HDR048–52	CNPH*4821A**	58MEB100–20	46,500	11.5	14.0
3465320	38HDR048–52	CNPH*4821A**	58MEB120–20	46,500	11.5	14.0
3465308	38HDR048–52	CNPH*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465309	38HDR048–52	CNPH*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465310	38HDR048–52	CNPH*4821A**	58MV(B,C)120–20	46,500	11.5	13.5
3465315	38HDR048–52	CNPH*4821A**	58PH*090–16	46,500	11.5	13.5
3465316	38HDR048–52	CNPH*4821A**	58PH*110–20	46,500	11.5	13.5
3465317	38HDR048–52	CNPH*4821A**	58PH*135–20	46,500	11.5	13.5
3465307	38HDR048–52	CNPH*4821A**+TDR		47,000	11.0	13.0
3465325	38HDR048–52	CNPH*6024A**	58CV(A,X)090–16	47,000	11.5	13.5
3465326	38HDR048–52	CNPH*6024A**	58CV(A,X)110–20	47,000	11.5	13.5
3465327	38HDR048–52	CNPH*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465328	38HDR048–52	CNPH*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465332	38HDR048–52	CNPH*6024A**	58MEB080–16	47,000	11.5	14.0
3465333	38HDR048–52	CNPH*6024A**	58MEB100–20	47,000	12.0	14.5
3465334	38HDR048–52	CNPH*6024A**	58MEB120–20	47,000	12.0	14.5
3465322	38HDR048–52	CNPH*6024A**	58MV(B,C)080–20	47,000	11.5	13.5
3465323	38HDR048–52	CNPH*6024A**	58MV(B,C)100–20	47,000	11.5	13.5
3465324	38HDR048–52	CNPH*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465329	38HDR048–52	CNPH*6024A**	58PH*090–16	47,000	12.0	14.5
3465330	38HDR048–52	CNPH*6024A**	58PH*110–20	47,000	12.0	14.5
3465331	38HDR048–52	CNPH*6024A**	58PH*135–20	47,000	12.0	14.5
3465321	38HDR048–52	CNPH*6024A**+TDR		47,500	11.0	13.0
3465291	38HDR048–52	CNPV*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465294	38HDR048–52	CNPV*4821A**	58MEB100–20	46,500	11.5	13.5
3465289	38HDR048–52	CNPV*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465290	38HDR048–52	CNPV*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465292	38HDR048–52	CNPV*4821A**	58PH*090–16	46,500	11.5	14.0
3465293	38HDR048–52	CNPV*4821A**	58PH*110–20	46,500	11.5	14.0
3465297	38HDR048–52	CNPV*4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465298	38HDR048–52	CNPV*4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465300	38HDR048–52	CNPV*4824A**	58MEB120–20	46,500	11.5	14.0
3465296	38HDR048–52	CNPV*4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465299	38HDR048–52	CNPV*4824A**	58PH*135–20	46,500	11.5	14.0
3465295	38HDR048–52	CNPV*4824A**+TDR		47,000	11.0	13.0
3465303	38HDR048–52	CNPV*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465304	38HDR048–52	CNPV*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465306	38HDR048–52	CNPV*6024A**	58MEB120–20	47,000	12.0	14.5
3465302	38HDR048–52	CNPV*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465305	38HDR048–52	CNPV*6024A**	58PH*135–20	47,000	12.0	14.5
3465301	38HDR048–52	CNPV*6024A**+TDR		47,500	11.0	13.0
3465340	38HDR048–52	CSPH*4812A**	58CV(A,X)090–16	46,500	11.5	13.5
3465341	38HDR048–52	CSPH*4812A**	58CV(A,X)110–20	46,500	11.5	13.5
3465342	38HDR048–52	CSPH*4812A**	58CV(A,X)135–22	46,500	11.5	13.5
3465343	38HDR048–52	CSPH*4812A**	58CV(A,X)155–22	46,500	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465347	38HDR048–52	CSPH*4812A**	58MEB080–16	46,500	11.5	14.0
3465348	38HDR048–52	CSPH*4812A**	58MEB100–20	46,500	11.5	14.0
3465349	38HDR048–52	CSPH*4812A**	58MEB120–20	46,500	11.5	14.0
3465337	38HDR048–52	CSPH*4812A**	58MV(B,C)080–20	46,500	11.5	13.5
3465338	38HDR048–52	CSPH*4812A**	58MV(B,C)100–20	46,500	11.5	13.5
3465339	38HDR048–52	CSPH*4812A**	58MV(B,C)120–20	46,500	11.5	13.5
3465344	38HDR048–52	CSPH*4812A**	58PH*090–16	46,500	11.5	14.0
3465345	38HDR048–52	CSPH*4812A**	58PH*110–20	46,500	11.5	14.0
3465346	38HDR048–52	CSPH*4812A**	58PH*135–20	46,500	11.5	14.0
3465336	38HDR048–52	CSPH*4812A**+TDR		47,000	11.0	13.0
3465354	38HDR048–52	CSPH*6012A**	58CV(A,X)090–16	47,000	11.5	13.5
3465355	38HDR048–52	CSPH*6012A**	58CV(A,X)110–20	47,000	11.5	14.0
3465356	38HDR048–52	CSPH*6012A**	58CV(A,X)135–22	47,000	11.5	14.0
3465357	38HDR048–52	CSPH*6012A**	58CV(A,X)155–22	47,000	11.5	14.0
3465361	38HDR048–52	CSPH*6012A**	58MEB080–16	47,000	12.0	14.5
3465362	38HDR048–52	CSPH*6012A**	58MEB100–20	47,000	12.0	14.5
3465363	38HDR048–52	CSPH*6012A**	58MEB120–20	47,000	12.0	14.5
3465351	38HDR048–52	CSPH*6012A**	58MV(B,C)080–20	47,000	11.5	13.5
3465352	38HDR048–52	CSPH*6012A**	58MV(B,C)100–20	47,000	11.5	13.5
3465353	38HDR048–52	CSPH*6012A**	58MV(B,C)120–20	47,000	11.5	13.5
3465358	38HDR048–52	CSPH*6012A**	58PH*090–16	47,000	12.0	14.5
3465359	38HDR048–52	CSPH*6012A**	58PH*110–20	47,000	12.0	14.5
3465360	38HDR048–52	CSPH*6012A**	58PH*135–20	47,000	12.0	14.5
3465350	38HDR048–52	CSPH*6012A**+TDR		47,500	11.0	13.0
3465368	38HDR048–52	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465369	38HDR048–52	FE4ANB006+UI		47,500	11.5	14.0
3465370	38HDR048–52	FV4BN(B,F)005		47,000	11.5	14.0
3465371	38HDR048–52	FV4BNB006		47,500	11.5	14.0
3465366	38HDR048–52	FX4CN(B,F)048		47,000	11.5	13.5
3465367	38HDR048–52	FX4CN(B,F)060		47,500	11.5	14.0
3465365	38HDR048–52	FY4ANB060		47,500	11.0	13.0
3465364	38HDR048–52	FY4ANF048		47,000	11.0	13.0
3465372	38HDR048–62	†CNPV*4821A**+TDR		47,000	11.0	13.0
3465809	38HDR048–62	40QAC048–3		45,500	11.5	13.0
3465374	38HDR048–62	CAP**4817A**	58CV(A,X)090–16	46,500	11.5	13.5
3465376	38HDR048–62	CAP**4817A**	58MEB080–16	46,500	11.5	14.0
3465375	38HDR048–62	CAP**4817A**	58PH*070–16	46,500	11.5	13.5
3465373	38HDR048–62	CAP**4817A**+TDR		46,500	11.0	13.0
3465380	38HDR048–62	CAP**4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465383	38HDR048–62	CAP**4821A**	58MEB100–20	46,500	11.5	14.0
3465378	38HDR048–62	CAP**4821A**	58MV(B,C)080–20	46,000	11.5	13.5
3465379	38HDR048–62	CAP**4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465381	38HDR048–62	CAP**4821A**	58PH*090–16	46,500	11.5	14.0
3465382	38HDR048–62	CAP**4821A**	58PH*110–20	46,500	11.5	14.0
3465377	38HDR048–62	CAP**4821A**+TDR		47,000	11.0	13.0
3465386	38HDR048–62	CAP**4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465387	38HDR048–62	CAP**4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465389	38HDR048–62	CAP**4824A**	58MEB120–20	46,500	11.5	14.0
3465385	38HDR048–62	CAP**4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465388	38HDR048–62	CAP**4824A**	58PH*135–20	46,500	11.5	14.0
3465384	38HDR048–62	CAP**4824A**+TDR		47,000	11.0	13.0
3465393	38HDR048–62	CAP**6021A**	58CV(A,X)110–20	47,000	11.5	13.5
3465396	38HDR048–62	CAP**6021A**	58MEB100–20	47,000	12.0	14.5
3465391	38HDR048–62	CAP**6021A**	58MV(B,C)080–20	47,000	11.5	13.5
3465392	38HDR048–62	CAP**6021A**	58MV(B,C)100–20	47,000	11.5	13.5
3465394	38HDR048–62	CAP**6021A**	58PH*090–16	47,000	12.0	14.5
3465395	38HDR048–62	CAP**6021A**	58PH*110–20	47,000	12.0	14.5
3465390	38HDR048–62	CAP**6021A**+TDR		47,500	11.0	13.0
3465399	38HDR048–62	CAP**6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465400	38HDR048–62	CAP**6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465402	38HDR048–62	CAP**6024A**	58MEB120–20	47,000	12.0	14.5
3465398	38HDR048–62	CAP**6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465401	38HDR048–62	CAP**6024A**	58PH*135–20	47,000	12.0	14.5
3465397	38HDR048–62	CAP**6024A**+TDR		47,500	11.0	13.0
3465449	38HDR048–62	CNPF*4818A**+TDR		46,000	11.0	13.0
3465425	38HDR048–62	CNPH*4821A**	58CV(A,X)090–16	46,500	11.5	13.5
3465426	38HDR048–62	CNPH*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465427	38HDR048–62	CNPH*4821A**	58CV(A,X)135–22	46,500	11.5	13.5
3465428	38HDR048–62	CNPH*4821A**	58CV(A,X)155–22	46,500	11.5	13.5
3465432	38HDR048–62	CNPH*4821A**	58MEB080–16	46,500	11.5	14.0
3465433	38HDR048–62	CNPH*4821A**	58MEB100–20	46,500	11.5	14.0
3465434	38HDR048–62	CNPH*4821A**	58MEB120–20	46,500	11.5	14.0
3465422	38HDR048–62	CNPH*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465423	38HDR048–62	CNPH*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465424	38HDR048–62	CNPH*4821A**	58MV(B,C)120–20	46,500	11.5	13.5
3465429	38HDR048–62	CNPH*4821A**	58PH*090–16	46,500	11.5	13.5
3465430	38HDR048–62	CNPH*4821A**	58PH*110–20	46,500	11.5	13.5
3465431	38HDR048–62	CNPH*4821A**	58PH*135–20	46,500	11.5	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465421	38HDR048–62	CNPH*4821A**+TDR		47,000	11.0	13.0
3465439	38HDR048–62	CNPH*6024A**	58CV(A,X)090–16	47,000	11.5	13.5
3465440	38HDR048–62	CNPH*6024A**	58CV(A,X)110–20	47,000	11.5	13.5
3465441	38HDR048–62	CNPH*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465442	38HDR048–62	CNPH*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465446	38HDR048–62	CNPH*6024A**	58MEB080–16	47,000	11.5	14.0
3465447	38HDR048–62	CNPH*6024A**	58MEB100–20	47,000	12.0	14.5
3465448	38HDR048–62	CNPH*6024A**	58MEB120–20	47,000	12.0	14.5
3465436	38HDR048–62	CNPH*6024A**	58MV(B,C)080–20	47,000	11.5	13.5
3465437	38HDR048–62	CNPH*6024A**	58MV(B,C)100–20	47,000	11.5	13.5
3465438	38HDR048–62	CNPH*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465443	38HDR048–62	CNPH*6024A**	58PH*090–16	47,000	12.0	14.5
3465444	38HDR048–62	CNPH*6024A**	58PH*110–20	47,000	12.0	14.5
3465445	38HDR048–62	CNPH*6024A**	58PH*135–20	47,000	12.0	14.5
3465435	38HDR048–62	CNPH*6024A**+TDR		47,500	11.0	13.0
3465405	38HDR048–62	CNPV*4821A**	58CV(A,X)110–20	46,500	11.5	13.5
3465408	38HDR048–62	CNPV*4821A**	58MEB100–20	46,500	11.5	13.5
3465403	38HDR048–62	CNPV*4821A**	58MV(B,C)080–20	46,500	11.5	13.5
3465404	38HDR048–62	CNPV*4821A**	58MV(B,C)100–20	46,500	11.5	13.5
3465406	38HDR048–62	CNPV*4821A**	58PH*090–16	46,500	11.5	14.0
3465407	38HDR048–62	CNPV*4821A**	58PH*110–20	46,500	11.5	14.0
3465411	38HDR048–62	CNPV*4824A**	58CV(A,X)135–22	46,500	11.5	13.5
3465412	38HDR048–62	CNPV*4824A**	58CV(A,X)155–22	46,500	11.5	13.5
3465414	38HDR048–62	CNPV*4824A**	58MEB120–20	46,500	11.5	14.0
3465410	38HDR048–62	CNPV*4824A**	58MV(B,C)120–20	46,500	11.5	13.5
3465413	38HDR048–62	CNPV*4824A**	58PH*135–20	46,500	11.5	14.0
3465409	38HDR048–62	CNPV*4824A**+TDR		47,000	11.0	13.0
3465417	38HDR048–62	CNPV*6024A**	58CV(A,X)135–22	47,000	11.5	13.5
3465418	38HDR048–62	CNPV*6024A**	58CV(A,X)155–22	47,000	11.5	14.0
3465420	38HDR048–62	CNPV*6024A**	58MEB120–20	47,000	12.0	14.5
3465416	38HDR048–62	CNPV*6024A**	58MV(B,C)120–20	47,000	11.5	13.5
3465419	38HDR048–62	CNPV*6024A**	58PH*135–20	47,000	12.0	14.5
3465415	38HDR048–62	CNPV*6024A**+TDR		47,500	11.0	13.0
3465454	38HDR048–62	CSPH*4812A**	58CV(A,X)090–16	46,500	11.5	13.5
3465455	38HDR048–62	CSPH*4812A**	58CV(A,X)110–20	46,500	11.5	13.5
3465456	38HDR048–62	CSPH*4812A**	58CV(A,X)135–22	46,500	11.5	13.5
3465457	38HDR048–62	CSPH*4812A**	58CV(A,X)155–22	46,500	11.5	13.5
3465461	38HDR048–62	CSPH*4812A**	58MEB080–16	46,500	11.5	14.0
3465462	38HDR048–62	CSPH*4812A**	58MEB100–20	46,500	11.5	14.0
3465463	38HDR048–62	CSPH*4812A**	58MEB120–20	46,500	11.5	14.0
3465451	38HDR048–62	CSPH*4812A**	58MV(B,C)080–20	46,500	11.5	13.5
3465452	38HDR048–62	CSPH*4812A**	58MV(B,C)100–20	46,500	11.5	13.5
3465453	38HDR048–62	CSPH*4812A**	58MV(B,C)120–20	46,500	11.5	13.5
3465458	38HDR048–62	CSPH*4812A**	58PH*090–16	46,500	11.5	14.0
3465459	38HDR048–62	CSPH*4812A**	58PH*110–20	46,500	11.5	14.0
3465460	38HDR048–62	CSPH*4812A**	58PH*135–20	46,500	11.5	14.0
3465450	38HDR048–62	CSPH*4812A**+TDR		47,000	11.0	13.0
3465468	38HDR048–62	CSPH*6012A**	58CV(A,X)090–16	47,000	11.5	13.5
3465469	38HDR048–62	CSPH*6012A**	58CV(A,X)110–20	47,000	11.5	14.0
3465470	38HDR048–62	CSPH*6012A**	58CV(A,X)135–22	47,000	11.5	14.0
3465471	38HDR048–62	CSPH*6012A**	58CV(A,X)155–22	47,000	11.5	14.0
3465475	38HDR048–62	CSPH*6012A**	58MEB080–16	47,000	12.0	14.5
3465476	38HDR048–62	CSPH*6012A**	58MEB100–20	47,000	12.0	14.5
3465477	38HDR048–62	CSPH*6012A**	58MEB120–20	47,000	12.0	14.5
3465465	38HDR048–62	CSPH*6012A**	58MV(B,C)080–20	47,000	11.5	13.5
3465466	38HDR048–62	CSPH*6012A**	58MV(B,C)100–20	47,000	11.5	13.5
3465467	38HDR048–62	CSPH*6012A**	58MV(B,C)120–20	47,000	11.5	13.5
3465472	38HDR048–62	CSPH*6012A**	58PH*090–16	47,000	12.0	14.5
3465473	38HDR048–62	CSPH*6012A**	58PH*110–20	47,000	12.0	14.5
3465474	38HDR048–62	CSPH*6012A**	58PH*135–20	47,000	12.0	14.5
3465464	38HDR048–62	CSPH*6012A**+TDR		47,500	11.0	13.0
3465482	38HDR048–62	FE4AN(B,F)005+UI		47,000	11.5	13.5
3465483	38HDR048–62	FE4ANB006+UI		47,500	11.5	14.0
3465484	38HDR048–62	FV4BN(B,F)005		47,000	11.5	14.0
3465485	38HDR048–62	FV4BNB006		47,500	11.5	14.0
3465480	38HDR048–62	FX4CN(B,F)048		47,000	11.5	13.5
3465481	38HDR048–62	FX4CN(B,F)060		47,500	11.5	14.0
3465479	38HDR048–62	FY4ANB060		47,500	11.0	13.0
3465478	38HDR048–62	FY4ANF048		47,000	11.0	13.0
3465024	38HDR060–32	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465810	38HDR060–32	40QAC060–3		56,000	11.0	13.0
3465026	38HDR060–32	CAP**6021A**	58CV(A,X)110–20	56,000	11.0	13.2
3465029	38HDR060–32	CAP**6021A**	58MEB100–20	56,000	11.0	13.5
3465027	38HDR060–32	CAP**6021A**	58PH*090–16	56,000	11.0	13.2
3465028	38HDR060–32	CAP**6021A**	58PH*110–20	56,000	11.0	13.5
3465025	38HDR060–32	CAP**6021A**+TDR		57,000	11.0	13.0
3465031	38HDR060–32	CAP**6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465032	38HDR060–32	CAP**6024A**	58CV(A,X)155–22	56,000	11.0	13.5

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COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465034	38HDR060–32	CAP**6024A**	58MEB120–20	56,000	11.0	13.5
3465033	38HDR060–32	CAP**6024A**	58PH*135–20	56,000	11.0	13.5
3465030	38HDR060–32	CAP**6024A**+TDR		57,000	11.0	13.0
3465040	38HDR060–32	CNPH*6024A**	58CV(A,X)110–20	56,000	11.0	13.2
3465041	38HDR060–32	CNPH*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465042	38HDR060–32	CNPH*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465046	38HDR060–32	CNPH*6024A**	58MEB080–16	56,000	11.0	13.2
3465047	38HDR060–32	CNPH*6024A**	58MEB100–20	56,000	11.0	13.5
3465048	38HDR060–32	CNPH*6024A**	58MEB120–20	56,000	11.0	13.5
3465043	38HDR060–32	CNPH*6024A**	58PH*090–16	56,000	11.0	13.2
3465044	38HDR060–32	CNPH*6024A**	58PH*110–20	56,000	11.0	13.5
3465045	38HDR060–32	CNPH*6024A**	58PH*135–20	56,000	11.0	13.5
3465039	38HDR060–32	CNPH*6024A**+TDR		57,000	11.0	13.0
3465035	38HDR060–32	CNPV*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465036	38HDR060–32	CNPV*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465038	38HDR060–32	CNPV*6024A**	58MEB120–20	56,000	11.0	13.5
3465037	38HDR060–32	CNPV*6024A**	58PH*135–20	56,000	11.0	13.5
3465051	38HDR060–32	CSPH*6012A**	58CV(A,X)110–20	56,000	11.0	13.5
3465052	38HDR060–32	CSPH*6012A**	58CV(A,X)135–22	56,000	11.0	13.5
3465053	38HDR060–32	CSPH*6012A**	58CV(A,X)155–22	56,000	11.0	13.5
3465057	38HDR060–32	CSPH*6012A**	58MEB080–16	56,000	11.0	13.2
3465058	38HDR060–32	CSPH*6012A**	58MEB100–20	56,000	11.0	13.5
3465059	38HDR060–32	CSPH*6012A**	58MEB120–20	56,000	11.0	13.5
3465050	38HDR060–32	CSPH*6012A**	58MV(B,C)120–20	56,000	11.0	13.2
3465054	38HDR060–32	CSPH*6012A**	58PH*090–16	56,000	11.0	13.5
3465055	38HDR060–32	CSPH*6012A**	58PH*110–20	56,000	11.0	13.5
3465056	38HDR060–32	CSPH*6012A**	58PH*135–20	56,000	11.0	13.5
3465049	38HDR060–32	CSPH*6012A**+TDR		57,000	11.0	13.0
3465062	38HDR060–32	FE4ANB006+UI		57,500	11.0	13.5
3465063	38HDR060–32	FV4BNB006		57,500	11.0	13.5
3465061	38HDR060–32	FX4CN(B,F)060		57,500	11.0	13.5
3465060	38HDR060–32	FY4ANB060		57,000	11.0	13.0
3465064	38HDR060–52	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465811	38HDR060–52	40QAC060–3		56,000	11.0	13.0
3465066	38HDR060–52	CAP**6021A**	58CV(A,X)110–20	56,000	11.0	13.2
3465069	38HDR060–52	CAP**6021A**	58MEB100–20	56,000	11.0	13.5
3465067	38HDR060–52	CAP**6021A**	58PH*090–16	56,000	11.0	13.2
3465068	38HDR060–52	CAP**6021A**	58PH*110–20	56,000	11.0	13.5
3465065	38HDR060–52	CAP**6021A**+TDR		57,000	11.0	13.0
3465071	38HDR060–52	CAP**6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465072	38HDR060–52	CAP**6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465074	38HDR060–52	CAP**6024A**	58MEB120–20	56,000	11.0	13.5
3465073	38HDR060–52	CAP**6024A**	58PH*135–20	56,000	11.0	13.5
3465070	38HDR060–52	CAP**6024A**+TDR		57,000	11.0	13.0
3465080	38HDR060–52	CNPH*6024A**	58CV(A,X)110–20	56,000	11.0	13.2
3465081	38HDR060–52	CNPH*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465082	38HDR060–52	CNPH*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465086	38HDR060–52	CNPH*6024A**	58MEB080–16	56,000	11.0	13.2
3465087	38HDR060–52	CNPH*6024A**	58MEB100–20	56,000	11.0	13.5
3465088	38HDR060–52	CNPH*6024A**	58MEB120–20	56,000	11.0	13.5
3465083	38HDR060–52	CNPH*6024A**	58PH*090–16	56,000	11.0	13.2
3465084	38HDR060–52	CNPH*6024A**	58PH*110–20	56,000	11.0	13.5
3465085	38HDR060–52	CNPH*6024A**	58PH*135–20	56,000	11.0	13.5
3465079	38HDR060–52	CNPH*6024A**+TDR		57,000	11.0	13.0
3465075	38HDR060–52	CNPV*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465076	38HDR060–52	CNPV*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465078	38HDR060–52	CNPV*6024A**	58MEB120–20	56,000	11.0	13.5
3465077	38HDR060–52	CNPV*6024A**	58PH*135–20	56,000	11.0	13.5
3465091	38HDR060–52	CSPH*6012A**	58CV(A,X)110–20	56,000	11.0	13.5
3465092	38HDR060–52	CSPH*6012A**	58CV(A,X)135–22	56,000	11.0	13.5
3465093	38HDR060–52	CSPH*6012A**	58CV(A,X)155–22	56,000	11.0	13.5
3465097	38HDR060–52	CSPH*6012A**	58MEB080–16	56,000	11.0	13.2
3465098	38HDR060–52	CSPH*6012A**	58MEB100–20	56,000	11.0	13.5
3465099	38HDR060–52	CSPH*6012A**	58MEB120–20	56,000	11.0	13.5
3465090	38HDR060–52	CSPH*6012A**	58MV(B,C)120–20	56,000	11.0	13.2
3465094	38HDR060–52	CSPH*6012A**	58PH*090–16	56,000	11.0	13.5
3465095	38HDR060–52	CSPH*6012A**	58PH*110–20	56,000	11.0	13.5
3465096	38HDR060–52	CSPH*6012A**	58PH*135–20	56,000	11.0	13.5
3465089	38HDR060–52	CSPH*6012A**+TDR		57,000	11.0	13.0
3465102	38HDR060–52	FE4ANB006+UI		57,500	11.0	13.5
3465103	38HDR060–52	FV4BNB006		57,500	11.0	13.5
3465101	38HDR060–52	FX4CN(B,F)060		57,500	11.0	13.5
3465100	38HDR060–52	FY4ANB060		57,000	11.0	13.0
3465104	38HDR060–62	†CNPV*6024A**+TDR		57,000	11.0	13.0
3465812	38HDR060–62	40QAC060–3		56,000	11.0	13.0
3465106	38HDR060–62	CAP**6021A**	58CV(A,X)110–20	56,000	11.0	13.2
3465109	38HDR060–62	CAP**6021A**	58MEB100–20	56,000	11.0	13.5

See notes on page 26

COMBINATION RATINGS (CONT.)

ARI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3465107	38HDR060–62	CAP**6021A**	58PH*090–16	56,000	11.0	13.2
3465108	38HDR060–62	CAP**6021A**	58PH*110–20	56,000	11.0	13.5
3465105	38HDR060–62	CAP**6021A**+TDR		57,000	11.0	13.0
3465111	38HDR060–62	CAP**6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465112	38HDR060–62	CAP**6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465114	38HDR060–62	CAP**6024A**	58MEB120–20	56,000	11.0	13.5
3465113	38HDR060–62	CAP**6024A**	58PH*135–20	56,000	11.0	13.5
3465110	38HDR060–62	CAP**6024A**+TDR		57,000	11.0	13.0
3465120	38HDR060–62	CNPH*6024A**	58CV(A,X)110–20	56,000	11.0	13.2
3465121	38HDR060–62	CNPH*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465122	38HDR060–62	CNPH*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465126	38HDR060–62	CNPH*6024A**	58MEB080–16	56,000	11.0	13.2
3465127	38HDR060–62	CNPH*6024A**	58MEB100–20	56,000	11.0	13.5
3465128	38HDR060–62	CNPH*6024A**	58MEB120–20	56,000	11.0	13.5
3465123	38HDR060–62	CNPH*6024A**	58PH*090–16	56,000	11.0	13.2
3465124	38HDR060–62	CNPH*6024A**	58PH*110–20	56,000	11.0	13.5
3465125	38HDR060–62	CNPH*6024A**	58PH*135–20	56,000	11.0	13.5
3465119	38HDR060–62	CNPH*6024A**+TDR		57,000	11.0	13.0
3465115	38HDR060–62	CNPV*6024A**	58CV(A,X)135–22	56,000	11.0	13.5
3465116	38HDR060–62	CNPV*6024A**	58CV(A,X)155–22	56,000	11.0	13.5
3465118	38HDR060–62	CNPV*6024A**	58MEB120–20	56,000	11.0	13.5
3465117	38HDR060–62	CNPV*6024A**	58PH*135–20	56,000	11.0	13.5
3465131	38HDR060–62	CSPH*6012A**	58CV(A,X)110–20	56,000	11.0	13.5
3465132	38HDR060–62	CSPH*6012A**	58CV(A,X)135–22	56,000	11.0	13.5
3465133	38HDR060–62	CSPH*6012A**	58CV(A,X)155–22	56,000	11.0	13.5
3465137	38HDR060–62	CSPH*6012A**	58MEB080–16	56,000	11.0	13.2
3465138	38HDR060–62	CSPH*6012A**	58MEB100–20	56,000	11.0	13.5
3465139	38HDR060–62	CSPH*6012A**	58MEB120–20	56,000	11.0	13.5
3465130	38HDR060–62	CSPH*6012A**	58MV(B,C)120–20	56,000	11.0	13.2
3465134	38HDR060–62	CSPH*6012A**	58PH*090–16	56,000	11.0	13.5
3465135	38HDR060–62	CSPH*6012A**	58PH*110–20	56,000	11.0	13.5
3465136	38HDR060–62	CSPH*6012A**	58PH*135–20	56,000	11.0	13.5
3465129	38HDR060–62	CSPH*6012A**+TDR		57,000	11.0	13.0
3465142	38HDR060–62	FE4ANB006+UI		57,500	11.0	13.5
3465143	38HDR060–62	FV4BNB006		57,500	11.0	13.5
3465141	38HDR060–62	FX4CN(B,F)060		57,500	11.0	13.5
3465140	38HDR060–62	FY4ANB060		57,000	11.0	13.0

† Tested combination

EER — Energy Efficiency Ratio

SEER — Seasonal Energy Efficiency Ratio

TDR — Time–Delay Relay. In most cases, only 1 method should be used to achieve TDR function. Using more than 1 method in a system may cause degradation in performance. Use either the accessory Time–Delay Relay KAATD0101TDR or a furnace equipped with TDR. Most Carrier furnaces are equipped with TDR.

TXV — Thermostatic Expansion Valve

NOTES:

1. Ratings are net values reflecting the effects of circulating fan motor heat. Supplemental electric heat is not included.
2. Tested outdoor/indoor combinations have been tested in accordance with DOE test procedures for central air conditioners. Ratings for other combinations are determined under DOE computer simulation procedures.
3. Determine actual CFM values obtainable for your system by referring to fan performance data in fan coil or furnace coil literature.
4. Do not apply with capillary tube coils as performance and reliability are significantly affected.

DETAILED COOLING CAPACITIES*

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR018 Outdoor Section With CNPV*1814A** Indoor Section																			
525	72 (22.2)	20.28	9.40	1.22	19.31	9.07	1.36	18.30	8.73	1.52	17.26	8.38	1.69	16.14	8.01	1.87	14.90	7.61	2.07
	67(19.4)	18.53	11.50	1.22	17.65	11.17	1.36	16.72	10.82	1.52	15.76	10.47	1.69	14.72	10.09	1.87	13.59	9.69	2.07
	62 (16.7)	16.93	13.58	1.23	16.13	13.24	1.37	15.29	12.89	1.52	14.43	12.52	1.69	13.57	13.57	1.87	12.71	12.71	2.07
	57 (13.9)	16.35	16.35	1.23	15.72	15.72	1.37	15.05	15.05	1.52	14.34	14.34	1.69	13.57	13.57	1.87	12.71	12.71	2.07
600	72(22.2)	20.65	9.87	1.25	19.63	9.53	1.39	18.59	9.18	1.54	17.50	8.83	1.71	16.34	8.46	1.90	15.05	8.05	2.10
	67(19.4)	18.90	12.25	1.25	17.97	11.91	1.39	17.00	11.56	1.55	16.00	11.20	1.72	14.93	10.82	1.90	13.75	10.41	2.10
	62 (16.7)	17.33	14.61	1.25	16.51	14.26	1.39	15.67	15.61	1.55	14.91	14.91	1.72	14.08	14.08	1.90	13.16	13.16	2.10
	57 (13.9)	17.07	17.07	1.25	16.39	16.39	1.39	15.67	15.67	1.55	14.91	14.91	1.72	14.08	14.08	1.90	13.16	13.16	2.10
675	72 (22.2)	20.91	10.30	1.27	19.86	9.96	1.41	18.78	9.61	1.57	17.67	9.26	1.74	16.47	8.88	1.93	15.15	8.46	2.13
	67 (19.4)	19.16	12.97	1.27	18.20	12.62	1.42	17.20	12.27	1.57	16.18	11.90	1.74	15.07	11.52	1.93	13.87	11.09	2.13
	62 (16.7)	17.70	17.52	1.28	16.94	16.94	1.42	16.17	16.17	1.57	15.37	15.37	1.74	14.49	14.49	1.93	13.52	13.52	2.13
	57(13.9)	17.67	17.67	1.28	16.94	16.94	1.42	16.17	16.17	1.57	15.37	15.37	1.74	14.49	14.49	1.93	13.52	13.52	2.13

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*1814A**	1.00	1.00	
40QAC(Q)024–3	1.06	1.01	
CAP**1814A**	1.00	1.01	
CAP**2414A**	1.02	1.02	
CAP**2417A**	1.02	1.02	
CNPF*2418A**	1.02	1.02	
CNPH*2417A**	1.02	1.02	
CNPV*2414A**	1.02	1.02	
CNPV*2417A**	1.02	1.02	
CSPH*2412A**	1.02	1.02	
FE4ANF002	1.02	0.98	
FF1ENP018	1.00	1.05	
FF1ENP024	1.02	1.07	
FV4BNF002	1.02	0.99	
FX4CNF018	1.00	0.96	
FX4CNF024	1.02	0.98	
FY4ANF018	1.00	1.05	
FY4ANF024	1.02	1.07	
CAP**1814A**	1.00	0.96	58CV(A,X)070–12
CAP**2414A**	1.02	0.98	58CV(A,X)070–12
CNPH*2417A**	1.02	0.98	58CV(A,X)070–12
CNPV*1814A**	0.10	0.10	58CV(A,X)070–12
CNPV*2414A**	1.02	0.98	58CV(A,X)070–12
CSPH*2412A**	1.02	0.98	58CV(A,X)070–12
CAP**2417A**	1.02	0.98	58CV(A,X)090–16
CNPH*2417A**	1.02	0.98	58CV(A,X)090–16
CNPV*2417A**	1.02	0.98	58CV(A,X)090–16
CSPH*2412A**	1.02	0.98	58CV(A,X)090–16
CAP**2417A**	1.02	0.94	58MEB040–12
CNPH*2417A**	1.02	0.94	58MEB040–12
CNPV*2417A**	1.02	0.94	58MEB040–12
CSPH*2412A**	1.02	0.94	58MEB040–12
CAP**2417A**	1.02	0.94	58MEB060–12
CNPH*2417A**	1.02	0.94	58MEB060–12
CNPV*2417A**	1.02	0.94	58MEB060–12
CSPH*2412A**	1.02	0.94	58MEB060–12
CAP**2417A**	1.02	0.98	58MV(B,C)060–14
CNPH*2417A**	1.02	0.98	58MV(B,C)060–14
CNPV*2417A**	1.02	0.98	58MV(B,C)060–14
CSPH*2412A**	1.02	0.98	58MV(B,C)060–14
CNPH*2417A**	1.02	0.98	58MV(B,C)080–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*2412A**	1.02	0.98	58MV(B,C)080–14
CNPH*2417A**	1.02	0.98	58MVB040–14
CSPH*2412A**	1.02	0.98	58MVB040–14
CAP**1814A**	0.10	0.10	58PH*045–08
CAP**2414A**	1.02	0.94	58PH*045–08
CNPH*2417A**	1.02	0.94	58PH*045–08
CNPV*1814A**	1.00	0.96	58PH*045–08
CNPV*2414A**	1.02	0.94	58PH*045–08
CSPH*2412A**	1.02	0.94	58PH*045–08

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR024 Outdoor Section With CNPV*2414A** Indoor Section																			
700	72 (22.2)	28.11	13.59	1.69	26.70	13.09	1.89	25.17	12.55	2.10	23.54	11.98	2.33	21.76	11.38	2.58	19.78	10.71	2.84
	67(19.4)	25.68	16.61	1.68	24.41	16.11	1.87	23.04	15.58	2.09	21.58	15.02	2.32	19.98	14.42	2.57	18.21	13.77	2.83
	62 (16.7)	23.47	19.61	1.67	22.34	19.11	1.86	21.13	18.58	2.08	19.86	18.01	2.31	18.57	18.57	2.55	17.23	17.23	2.82
	57 (13.9)	22.67	22.67	1.67	21.77	21.77	1.86	20.81	20.81	2.07	19.75	19.75	2.31	18.57	18.57	2.55	17.23	17.23	2.82
800	72(22.2)	28.62	14.25	1.73	27.14	13.73	1.93	25.53	13.18	2.14	23.83	12.61	2.37	21.98	11.99	2.62	19.92	11.32	2.88
	67(19.4)	26.18	17.67	1.72	24.84	17.16	1.91	23.40	16.61	2.13	21.88	16.05	2.36	20.22	15.43	2.61	18.38	14.76	2.87
	62 (16.7)	24.02	21.07	1.71	22.85	20.54	1.90	21.63	21.51	2.12	20.48	20.48	2.35	19.20	19.20	2.60	17.75	17.75	2.86
	57 (13.9)	23.64	23.64	1.71	22.68	22.68	1.90	21.62	21.62	2.12	20.48	20.48	2.35	19.20	19.20	2.60	17.75	17.75	2.86
900	72 (22.2)	28.99	14.87	1.77	27.45	14.34	1.96	25.78	13.78	2.18	24.03	13.20	2.41	22.12	12.57	2.66	20.00	11.89	2.92
	67 (19.4)	26.54	18.68	1.76	25.15	18.16	1.95	23.66	17.61	2.17	22.09	17.03	2.40	20.38	16.40	2.65	18.50	15.71	2.91
	62 (16.7)	24.51	22.41	1.75	23.41	23.41	1.94	22.28	22.28	2.16	21.06	21.06	2.39	19.70	19.70	2.64	18.15	18.15	2.91
	57(13.9)	24.45	24.45	1.75	23.41	23.41	1.94	22.28	22.28	2.16	21.06	21.06	2.39	19.70	19.70	2.64	18.15	18.15	2.91

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*2414A**	1.00	1.00	
40QAC024–3	0.97	0.93	
CAP**2414A**	1.00	1.00	
CAP**2417A**	1.00	1.00	
CAP**3014A**	1.01	1.01	
CAP**3017A**	1.01	1.01	
CNPF*2418A**	1.00	1.00	
CNPH*2417A**	1.00	1.00	
CNPH*3017A**	1.01	1.01	
CNPV*2417A**	1.00	1.00	
CNPV*3014A**	1.01	1.01	
CNPV*3017A**	1.01	1.01	
CSPH*2412A**	1.00	1.00	
CSPH*3012A**	1.01	1.01	
FE4AN(B,F)003	1.02	0.93	
FE4ANF002	1.01	0.92	
FE5ANB004	1.03	0.94	
FF1ENP024	0.97	0.97	
FF1ENP025	1.00	0.96	
FF1ENP030	0.98	0.98	
FF1ENP031	1.01	0.96	
FF1ENP037	1.02	0.97	
FV4BN(B,F)003	1.02	0.93	
FV4BNF002	1.01	0.92	
FV4CN(B,F)003	1.02	0.93	
FV4CNF002	1.01	0.92	
FX4CNF024	1.00	0.96	
FX4CNF030	1.02	0.97	
FY4ANF024	0.99	0.99	
FY4ANF030	1.01	1.01	
CAP**2414A**	1.00	0.96	58CV(A,X)070–12
CAP**3014A**	1.00	0.96	58CV(A,X)070–12
CNPH*2417A**	1.00	0.96	58CV(A,X)070–12
CNPH*3017A**	1.00	0.96	58CV(A,X)070–12
CNPV*2414A**	1.00	0.96	58CV(A,X)070–12
CNPV*3014A**	1.00	0.96	58CV(A,X)070–12
CSPH*2412A**	1.00	0.96	58CV(A,X)070–12
CSPH*3012A**	1.01	0.96	58CV(A,X)070–12
CAP**2417A**	1.00	0.96	58CV(A,X)090–16
CAP**3017A**	1.01	0.96	58CV(A,X)090–16
CNPH*2417A**	1.00	0.96	58CV(A,X)090–16
CNPH*3017A**	1.01	0.96	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*2417A**	1.00	0.96	58CV(A,X)090–16
CNPV*3017A**	1.01	0.96	58CV(A,X)090–16
CSPH*2412A**	1.00	0.96	58CV(A,X)090–16
CSPH*3012A**	1.01	0.96	58CV(A,X)090–16
CNPH*2417A**	1.00	0.96	58CV(A,X)110–20
CNPH*3017A**	1.01	0.96	58CV(A,X)110–20
CSPH*2412A**	1.00	0.96	58CV(A,X)110–20
CSPH*3012A**	1.01	0.96	58CV(A,X)110–20
CNPH*2417A**	1.00	0.96	58CV(A,X)135–22
CNPH*3017A**	1.01	0.96	58CV(A,X)135–22
CSPH*2412A**	1.00	0.96	58CV(A,X)135–22
CSPH*3012A**	1.01	0.96	58CV(A,X)135–22
CNPH*2417A**	1.00	0.96	58CV(A,X)155–22
CNPH*3017A**	1.01	0.96	58CV(A,X)155–22
CSPH*2412A**	1.00	0.96	58CV(A,X)155–22
CSPH*3012A**	1.01	0.96	58CV(A,X)155–22
CAP**2417A**	1.00	0.92	58MEB040–12
CAP**3017A**	1.01	0.92	58MEB040–12
CNPH*2417A**	1.00	0.92	58MEB040–12
CNPH*3017A**	1.01	0.92	58MEB040–12
CNPV*2417A**	1.00	0.92	58MEB040–12
CNPV*3017A**	1.01	0.92	58MEB040–12
CSPH*2412A**	1.00	0.92	58MEB040–12
CSPH*3012A**	1.01	0.92	58MEB040–12
CAP**2417A**	1.00	0.92	58MEB060–12
CAP**3017A**	1.01	0.92	58MEB060–12
CNPH*2417A**	1.00	0.92	58MEB060–12
CNPH*3017A**	1.01	0.92	58MEB060–12
CNPV*2417A**	1.00	0.92	58MEB060–12
CNPV*3017A**	1.01	0.92	58MEB060–12
CSPH*2412A**	1.00	0.92	58MEB060–12
CSPH*3012A**	1.01	0.92	58MEB060–12
CAP**2417A**	1.00	0.92	58MEB080–12
CAP**3017A**	1.01	0.92	58MEB080–12
CNPH*2417A**	1.00	0.92	58MEB080–12
CNPH*3017A**	1.01	0.92	58MEB080–12
CNPV*2417A**	1.00	0.92	58MEB080–12
CNPV*3017A**	1.01	0.92	58MEB080–12
CSPH*2412A**	1.00	0.92	58MEB080–12
CSPH*3012A**	1.01	0.92	58MEB080–12
CAP**2417A**	1.00	0.96	58MV(B,C)060–14
CAP**3017A**	1.01	0.96	58MV(B,C)060–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*2417A**	1.00	0.96	58MV(B,C)060–14
CNPH*3017A**	1.01	0.96	58MV(B,C)060–14
CNPV*2417A**	1.00	0.96	58MV(B,C)060–14
CNPV*3017A**	1.01	0.96	58MV(B,C)060–14
CSPH*2412A**	1.00	0.96	58MV(B,C)060–14
CSPH*3012A**	1.01	0.96	58MV(B,C)060–14
CNPH*2417A**	1.00	0.96	58MV(B,C)080–14
CNPH*3017A**	1.00	0.96	58MV(B,C)080–14
CSPH*2412A**	1.00	0.96	58MV(B,C)080–14
CSPH*3012A**	1.01	0.96	58MV(B,C)080–14
CNPH*2417A**	0.99	0.95	58MV(B,C)080–20
CNPH*3017A**	1.00	0.96	58MV(B,C)080–20
CSPH*2412A**	1.00	0.96	58MV(B,C)080–20
CSPH*3012A**	1.00	0.96	58MV(B,C)080–20
CNPH*2417A**	1.00	0.96	58MV(B,C)100–20
CNPH*3017A**	1.01	0.96	58MV(B,C)100–20
CSPH*2412A**	1.00	0.96	58MV(B,C)100–20
CSPH*3012A**	1.01	0.96	58MV(B,C)100–20
CNPH*2417A**	1.00	0.96	58MV(B,C)120–20
CNPH*3017A**	1.01	0.96	58MV(B,C)120–20
CSPH*2412A**	1.00	0.96	58MV(B,C)120–20
CSPH*3012A**	1.01	0.96	58MV(B,C)120–20
CNPH*2417A**	1.00	0.96	58MVB040–14
CNPH*3017A**	1.01	0.96	58MVB040–14
CSPH*2412A**	1.00	0.96	58MVB040–14
CSPH*3012A**	1.01	0.96	58MVB040–14
CAP**2414A**	1.00	0.96	58PH*045–08
CAP**3014A**	1.01	0.92	58PH*045–08
CNPH*2417A**	1.00	0.96	58PH*045–08
CNPH*3017A**	1.01	0.92	58PH*045–08
CNPV*2414A**	1.00	0.96	58PH*045–08
CNPV*3014A**	1.01	0.96	58PH*045–08
CSPH*2412A**	1.00	0.96	58PH*045–08
CSPH*3012A**	1.01	0.92	58PH*045–08

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR030 Outdoor Section With CNPV*3014A** Indoor Section																			
875	72 (22.2)	33.74	16.03	2.06	32.29	15.52	2.29	30.76	14.99	2.54	29.12	14.43	2.81	27.36	13.84	3.11	25.42	13.19	3.44
	67(19.4)	30.65	19.58	2.06	29.32	19.06	2.29	27.90	18.51	2.54	26.39	17.94	2.81	24.76	17.34	3.11	22.97	16.69	3.43
	62 (16.7)	28.07	23.01	2.07	26.73	22.59	2.29	25.47	22.03	2.54	24.10	21.45	2.81	22.76	22.72	3.11	21.45	21.45	3.43
	57 (13.9)	27.14	27.14	2.07	26.16	26.16	2.29	25.11	25.11	2.53	24.01	24.01	2.80	22.78	22.78	3.11	21.43	21.43	3.43
1000	72(22.2)	34.29	16.79	2.11	32.87	16.29	2.34	31.28	15.69	2.58	29.58	15.18	2.86	27.57	14.54	3.17	25.64	13.91	3.49
	67(19.4)	31.27	20.81	2.11	29.84	20.29	2.34	28.40	19.75	2.58	26.82	19.17	2.86	24.99	18.52	3.16	23.21	17.87	3.49
	62 (16.7)	28.72	24.92	2.11	27.38	24.26	2.34	26.11	26.11	2.58	24.94	24.94	2.85	23.54	23.54	3.16	22.22	22.22	3.48
	57 (13.9)	28.28	28.28	2.11	27.23	27.23	2.34	26.13	26.13	2.58	24.94	24.94	2.85	23.54	23.54	3.16	22.22	22.22	3.48
1125	72 (22.2)	34.76	17.52	2.16	33.30	17.00	2.39	31.65	16.46	2.63	29.90	15.89	2.91	28.03	15.27	3.21	25.95	14.60	3.53
	67 (19.4)	31.86	21.48	2.16	30.25	21.46	2.38	28.76	20.92	2.63	27.14	20.32	2.90	25.39	19.69	3.21	23.44	18.98	3.54
	62 (16.7)	29.27	29.04	2.16	28.12	28.12	2.38	26.98	26.98	2.63	25.71	25.71	2.90	24.35	24.35	3.20	22.84	22.84	3.53
	57(13.9)	29.23	29.23	2.16	28.13	28.13	2.38	26.99	26.99	2.63	25.71	25.71	2.90	24.23	24.23	3.21	22.85	22.85	3.53

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*3014A**	1.00	1.00	
CAP**3014A**	1.00	1.00	
CAP**3017A**	1.00	1.00	
CAP**3614A**	1.02	1.02	
CAP**3617A**	1.02	1.02	
CAP**3621A**	1.02	1.02	
CNPF*3618A**	1.02	1.02	
CNPH*3017A**	1.00	1.00	
CNPH*3617A**	1.02	1.02	
CNPV*3017A**	1.00	1.00	
CNPV*3617A**	1.02	1.02	
CNPV*3621A**	1.02	1.02	
CSPH*3012A**	1.00	1.00	
CSPH*3612A**	1.02	1.02	
40QAC(Q)036–3	1.04	1.06	
FE4AN(B,F)003	1.02	0.98	
FE4AN(B,F)005	1.04	0.91	
FE4ANF002	1.02	0.98	
FE5ANB004	1.00	0.88	
FF1ENP030	1.00	1.00	
FF1ENP036	1.02	1.02	
FV4BN(B,F)003	1.03	0.98	
FV4BN(B,F)005	1.04	0.99	
FV4BNF002	1.02	0.98	
FX4CN(B,F)036	1.02	0.98	
FX4CNF030	1.00	0.96	
FY4ANF030	1.00	1.00	
FY4ANF036	1.02	1.02	
CAP**3014A**	1.00	0.96	58CV(A,X)070–12
CAP**3614A**	1.02	0.98	58CV(A,X)070–12
CNPH*3017A**	1.00	0.96	58CV(A,X)070–12
CNPH*3617A**	1.02	0.98	58CV(A,X)070–12
CNPV*3014A**	1.02	0.98	58CV(A,X)070–12
CSPH*3012A**	1.00	0.96	58CV(A,X)070–12
CSPH*3612A**	1.02	0.98	58CV(A,X)070–12
CAP**3017A**	1.00	0.96	58CV(A,X)090–16
CAP**3617A**	1.02	0.98	58CV(A,X)090–16
CNPH*3017A**	1.00	0.96	58CV(A,X)090–16
CNPH*3617A**	1.02	0.98	58CV(A,X)090–16
CNPV*3017A**	1.00	0.96	58CV(A,X)090–16
CNPV*3617A**	1.02	0.98	58CV(A,X)090–16
CSPH*3012A**	1.00	0.96	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3612A**	1.02	0.98	58CV(A,X)090–16
CAP**3621A**	1.02	0.98	58CV(A,X)110–20
CNPH*3017A**	1.00	0.96	58CV(A,X)110–20
CNPH*3617A**	1.02	0.98	58CV(A,X)110–20
CNPV*3621A**	1.02	0.98	58CV(A,X)110–20
CSPH*3012A**	1.00	0.96	58CV(A,X)110–20
CSPH*3612A**	1.02	0.98	58CV(A,X)110–20
CNPH*3017A**	1.00	0.96	58CV(A,X)135–22
CNPH*3617A**	1.02	0.98	58CV(A,X)135–22
CSPH*3012A**	1.00	0.96	58CV(A,X)135–22
CSPH*3612A**	1.02	0.98	58CV(A,X)135–22
CNPH*3017A**	1.00	0.96	58CV(A,X)155–22
CNPH*3617A**	1.02	0.98	58CV(A,X)155–22
CSPH*3012A**	1.00	0.96	58CV(A,X)155–22
CSPH*3612A**	1.02	0.98	58CV(A,X)155–22
CAP**3017A**	1.00	0.92	58MEB040–12
CAP**3617A**	1.02	0.94	58MEB040–12
CNPH*3017A**	1.00	0.92	58MEB040–12
CNPH*3617A**	1.02	0.94	58MEB040–12
CNPV*3017A**	1.00	0.92	58MEB040–12
CNPV*3617A**	1.02	0.94	58MEB040–12
CSPH*3012A**	1.00	0.92	58MEB040–12
CSPH*3612A**	1.02	0.94	58MEB040–12
CAP**3017A**	1.00	0.92	58MEB060–12
CAP**3617A**	1.02	0.94	58MEB060–12
CNPH*3017A**	1.00	0.92	58MEB060–12
CNPH*3617A**	1.02	0.94	58MEB060–12
CNPV*3017A**	1.00	0.92	58MEB060–12
CNPV*3617A**	1.02	0.94	58MEB060–12
CSPH*3012A**	1.00	0.92	58MEB060–12
CSPH*3612A**	1.02	0.94	58MEB060–12
CAP**3017A**	1.00	0.92	58MEB080–12
CAP**3617A**	1.02	0.94	58MEB080–12
CNPH*3017A**	1.00	0.92	58MEB080–12
CNPH*3617A**	1.02	0.94	58MEB080–12
CNPV*3017A**	1.00	0.92	58MEB080–12
CNPV*3617A**	1.02	0.94	58MEB080–12
CSPH*3012A**	1.00	0.92	58MEB080–12
CSPH*3612A**	1.02	0.94	58MEB080–12
CAP**3017A**	1.00	0.92	58MEB080–16
CAP**3617A**	1.02	0.94	58MEB080–16
CNPH*3017A**	1.00	0.92	58MEB080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*3617A**	1.02	0.94	58MEB080–16
CNPV*3017A**	1.00	0.92	58MEB080–16
CNPV*3617A**	1.02	0.94	58MEB080–16
CSPH*3012A**	1.00	0.92	58MEB080–16
CSPH*3612A**	1.02	0.94	58MEB080–16
CAP**3017A**	1.00	0.96	58MV(B,C)060–14
CAP**3617A**	1.02	0.98	58MV(B,C)060–14
CNPH*3017A**	1.00	0.96	58MV(B,C)060–14
CNPH*3617A**	1.02	0.98	58MV(B,C)060–14
CNPV*3017A**	1.00	0.96	58MV(B,C)060–14
CNPV*3617A**	1.02	0.98	58MV(B,C)060–14
CSPH*3012A**	1.00	0.96	58MV(B,C)060–14
CSPH*3612A**	1.02	0.98	58MV(B,C)060–14
CAP**3621A**	1.02	0.98	58MV(B,C)080–14
CNPH*3017A**	1.00	0.96	58MV(B,C)080–14
CNPH*3617A**	1.02	0.98	58MV(B,C)080–14
CNPV*3621A**	1.02	0.98	58MV(B,C)080–14
CSPH*3012A**	1.00	0.96	58MV(B,C)080–14
CSPH*3612A**	1.02	0.98	58MV(B,C)080–14
CAP**3621A**	1.02	0.98	58MV(B,C)080–20
CNPH*3017A**	1.00	0.96	58MV(B,C)080–20
CNPH*3617A**	1.02	0.98	58MV(B,C)080–20
CNPV*3621A**	1.02	0.98	58MV(B,C)080–20
CSPH*3012A**	1.00	0.96	58MV(B,C)080–20
CSPH*3612A**	1.02	0.98	58MV(B,C)080–20
CAP**3621A**	1.02	0.98	58MV(B,C)100–20
CNPH*3017A**	1.00	0.96	58MV(B,C)100–20
CNPH*3617A**	1.02	0.98	58MV(B,C)100–20
CNPV*3621A**	1.02	0.98	58MV(B,C)100–20
CSPH*3012A**	1.00	0.96	58MV(B,C)100–20
CSPH*3612A**	1.02	0.98	58MV(B,C)100–20
CNPH*3017A**	1.00	0.96	58MV(B,C)120–20
CNPH*3617A**	1.02	0.98	58MV(B,C)120–20
CSPH*3012A**	1.00	0.96	58MV(B,C)120–20
CSPH*3612A**	1.02	0.98	58MV(B,C)120–20
CNPH*3617A**	1.02	0.98	58MVB040–14
CSPH*3012A**	1.00	0.96	58MVB040–14
CSPH*3612A**	1.02	0.98	58MVB040–14
CAP**3017A**	1.00	0.96	58PH*070–16
CAP**3617A**	1.02	0.94	58PH*070–16
CNPH*3017A**	1.00	0.96	58PH*070–16
CNPH*3617A**	1.02	0.94	58PH*070–16

DETAILED COOLING CAPACITIES* (CONT.)

38HDR030 Outdoor Section With CNPV*3014A Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*3017A**	1.00	0.96	58PH*070–16
CNPV*3617A**	1.02	0.94	58PH*070–16
CSPH*3012A**	1.00	0.96	58PH*070–16
CSPH*3612A**	1.02	0.94	58PH*070–16
CAP**3621A**	1.02	0.94	58PH*090–16
CNPH*3017A**	1.00	0.96	58PH*090–16
CNPH*3617A**	1.02	0.94	58PH*090–16
CNPV*3621A**	1.02	0.94	58PH*090–16
CSPH*3012A**	1.00	0.96	58PH*090–16
CSPH*3612A**	1.02	0.94	58PH*090–16

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR036 Outdoor Section With CNPV*4221A** Indoor Section																			
1050	72 (22.2)	39.85	18.85	2.42	38.03	18.23	2.68	36.08	17.58	2.98	33.99	16.89	3.30	31.72	16.14	3.65	29.20	15.33	4.03
	67(19.4)	36.33	23.19	2.42	34.67	22.57	2.68	32.91	21.91	2.98	31.02	21.23	3.30	28.99	20.49	3.65	26.73	19.69	4.04
	62 (16.7)	33.23	27.51	2.42	31.75	26.88	2.68	30.20	26.20	2.98	28.60	28.45	3.30	27.06	27.06	3.65	25.34	25.34	4.03
	57 (13.9)	32.46	32.46	2.42	31.26	31.26	2.68	29.98	29.98	2.98	28.59	28.59	3.30	27.06	27.06	3.65	25.34	25.34	4.03
1200	72(22.2)	40.51	19.77	2.48	38.61	19.14	2.74	36.57	18.47	3.04	34.40	17.77	3.36	32.04	17.01	3.71	29.42	16.18	4.09
	67(19.4)	36.97	24.67	2.48	35.23	24.04	2.74	33.40	23.38	3.04	31.45	22.68	3.36	29.33	21.93	3.71	27.00	21.10	4.09
	62 (16.7)	34.01	29.52	2.48	32.53	32.23	2.74	31.11	31.11	3.04	29.61	29.61	3.36	27.97	27.97	3.71	26.12	26.12	4.09
	57 (13.9)	33.78	33.78	2.48	32.49	32.49	2.74	31.11	31.11	3.04	29.62	29.62	3.36	27.97	27.97	3.71	26.12	26.12	4.09
1350	72 (22.2)	40.99	20.64	2.54	39.02	19.99	2.80	36.91	19.31	3.09	34.67	18.60	3.42	32.24	17.83	3.77	29.54	16.99	4.15
	67 (19.4)	37.43	26.09	2.54	35.65	25.45	2.80	33.76	24.78	3.10	31.75	24.06	3.42	29.58	23.29	3.77	27.20	22.42	4.15
	62 (16.7)	34.86	34.86	2.54	33.49	33.49	2.80	32.02	32.02	3.10	30.44	30.44	3.42	28.70	28.70	3.77	26.73	26.73	4.15
	57(13.9)	34.86	34.86	2.54	33.49	33.49	2.80	32.03	32.03	3.10	30.44	30.44	3.42	28.70	28.70	3.77	26.73	26.73	4.15

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*4221A**	1.00	1.00	
40QAC(Q)036–3	0.96	0.92	
CAP**3614A**	0.98	0.98	
CAP**3617A**	0.99	0.99	
CAP**3621A**	0.99	0.99	
CAP**4221A**	1.00	1.00	
CAP**4224A**	1.00	1.00	
CNPF*3618A**	0.99	0.99	
CNPH*3617A**	0.99	0.99	
CNPH*4221A**	1.00	1.00	
CNPV*3617A**	0.99	0.99	
CNPV*3621A**	0.99	0.99	
CNPV*4217A**	0.99	0.99	
CSPH*3612A**	0.99	0.99	
CSPH*4212A**	1.00	1.00	
FE4AN(B,F)003	0.99	0.95	
FE4AN(B,F)005	1.00	0.88	
FE4ANB006	1.00	0.88	
FE4ANF002	0.99	0.95	
FE5ANB004	1.04	0.91	
FF1ENP036	0.99	0.99	
FV4BN(B,F)003	0.99	0.91	
FV4BN(B,F)005	1.02	0.93	
FV4BNB006	1.00	0.88	
FV4BNF002	0.99	0.95	
FX4CN(B,F)036	0.99	0.95	
FX4CN(B,F)042	1.00	0.96	
FY4ANF036	0.99	0.99	
FY4ANF042	1.00	1.00	
CAP**3614A**	0.98	0.93	58CV(A,X)070–12
CNPH*3617A**	0.99	0.95	58CV(A,X)070–12
CNPH*4221A**	1.00	0.96	58CV(A,X)070–12
CSPH*3612A**	0.99	0.95	58CV(A,X)070–12
CSPH*4212A**	1.00	0.96	58CV(A,X)070–12
CAP**3617A**	0.99	0.95	58CV(A,X)090–16
CNPH*3617A**	0.99	0.95	58CV(A,X)090–16
CNPH*4221A**	1.00	0.96	58CV(A,X)090–16
CNPV*3617A**	0.99	0.95	58CV(A,X)090–16
CNPV*4217A**	1.00	0.92	58CV(A,X)090–16
CSPH*3612A**	0.99	0.95	58CV(A,X)090–16
CSPH*4212A**	1.00	0.96	58CV(A,X)090–16
CAP**3621A**	0.99	0.95	58CV(A,X)110–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4221A**	1.00	0.96	58CV(A,X)110–20
CNPH*3617A**	0.99	0.95	58CV(A,X)110–20
CNPH*4221A**	1.00	0.96	58CV(A,X)110–20
CNPV*3621A**	0.99	0.95	58CV(A,X)110–20
CNPV*4221A**	1.00	0.96	58CV(A,X)110–20
CSPH*3612A**	0.99	0.95	58CV(A,X)110–20
CSPH*4212A**	1.00	0.96	58CV(A,X)110–20
CAP**4224A**	1.00	0.96	58CV(A,X)135–22
CNPH*3617A**	0.99	0.95	58CV(A,X)135–22
CNPH*4221A**	1.00	0.96	58CV(A,X)135–22
CSPH*3612A**	0.99	0.95	58CV(A,X)135–22
CSPH*4212A**	1.00	0.96	58CV(A,X)135–22
CAP**4224A**	1.00	0.96	58CV(A,X)155–22
CNPH*3617A**	0.99	0.95	58CV(A,X)155–22
CNPH*4221A**	1.00	0.96	58CV(A,X)155–22
CSPH*3612A**	0.99	0.95	58CV(A,X)155–22
CSPH*4212A**	1.00	0.96	58CV(A,X)155–22
CAP**3617A**	0.99	0.91	58MEB040–12
CNPH*3617A**	0.99	0.91	58MEB040–12
CNPH*4221A**	1.00	0.92	58MEB040–12
CNPV*3617A**	0.10	0.09	58MEB040–12
CNPV*4217A**	1.00	0.92	58MEB040–12
CSPH*3612A**	0.99	0.91	58MEB040–12
CSPH*4212A**	1.00	0.92	58MEB040–12
CAP**3617A**	0.99	0.91	58MEB060–12
CNPH*3617A**	0.99	0.91	58MEB060–12
CNPH*4221A**	1.02	0.93	58MEB060–12
CNPV*3617A**	0.99	0.91	58MEB060–12
CNPV*4217A**	1.00	0.92	58MEB060–12
CSPH*3612A**	0.99	0.91	58MEB060–12
CSPH*4212A**	1.00	0.92	58MEB060–12
CAP**3617A**	0.99	0.91	58MEB080–12
CNPH*3617A**	0.99	0.91	58MEB080–12
CNPH*4221A**	1.00	0.92	58MEB080–12
CNPV*3617A**	0.99	0.91	58MEB080–12
CNPV*4217A**	1.00	0.92	58MEB080–12
CSPH*3612A**	0.99	0.91	58MEB080–12
CSPH*4212A**	1.00	0.92	58MEB080–12
CAP**3617A**	0.99	0.91	58MEB080–16
CNPH*3617A**	0.99	0.91	58MEB080–16
CNPH*4221A**	1.00	0.92	58MEB080–16
CNPV*3617A**	0.99	0.91	58MEB080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4217A**	1.00	0.92	58MEB080–16
CSPH*3612A**	0.99	0.91	58MEB080–16
CSPH*4212A**	1.00	0.92	58MEB080–16
CAP**3621A**	0.99	0.91	58MEB100–20
CAP**4221A**	1.00	0.92	58MEB100–20
CNPH*3617A**	0.99	0.91	58MEB100–20
CNPH*4221A**	1.00	0.92	58MEB100–20
CNPV*3621A**	0.99	0.91	58MEB100–20
CNPV*4221A**	1.00	0.92	58MEB100–20
CSPH*3612A**	0.99	0.91	58MEB100–20
CSPH*4212A**	1.00	0.92	58MEB100–20
CAP**3617A**	0.99	0.95	58MV(B,C)060–14
CNPH*3617A**	0.99	0.95	58MV(B,C)060–14
CNPH*4221A**	1.00	0.96	58MV(B,C)060–14
CNPV*3617A**	0.99	0.95	58MV(B,C)060–14
CNPV*4217A**	1.00	0.92	58MV(B,C)060–14
CSPH*3612A**	0.99	0.95	58MV(B,C)060–14
CSPH*4212A**	1.00	0.96	58MV(B,C)060–14
CAP**3621A**	0.99	0.95	58MV(B,C)080–14
CAP**4221A**	1.00	0.96	58MV(B,C)080–14
CNPH*3617A**	0.99	0.95	58MV(B,C)080–14
CNPH*4221A**	1.00	0.96	58MV(B,C)080–14
CNPV*3621A**	0.99	0.95	58MV(B,C)080–14
CNPV*4221A**	1.00	0.96	58MV(B,C)080–14
CSPH*3612A**	0.99	0.95	58MV(B,C)080–14
CSPH*4212A**	1.00	0.96	58MV(B,C)080–14
CAP**3621A**	0.99	0.95	58MV(B,C)080–20
CAP**4221A**	1.00	0.96	58MV(B,C)080–20
CNPH*3617A**	0.99	0.95	58MV(B,C)080–20
CNPH*4221A**	1.00	0.96	58MV(B,C)080–20
CNPV*3621A**	0.99	0.95	58MV(B,C)080–20
CNPV*4221A**	1.00	0.96	58MV(B,C)080–20
CSPH*3612A**	0.99	0.95	58MV(B,C)080–20
CSPH*4212A**	1.00	0.96	58MV(B,C)080–20
CAP**3621A**	0.99	0.95	58MV(B,C)100–20
CAP**4221A**	1.00	0.96	58MV(B,C)100–20
CNPH*3617A**	0.99	0.95	58MV(B,C)100–20
CNPH*4221A**	1.00	0.96	58MV(B,C)100–20
CNPV*3621A**	0.99	0.95	58MV(B,C)100–20
CNPV*4221A**	1.00	0.96	58MV(B,C)100–20
CSPH*3612A**	0.99	0.95	58MV(B,C)100–20
CSPH*4212A**	1.00	0.96	58MV(B,C)100–20

DETAILED COOLING CAPACITIES* (CONT.)

38HDR036 Outdoor Section With CNPV*4221A Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4224A**	1.00	0.96	58MV(B,C)120–20
CNPH*3617A**	0.99	0.95	58MV(B,C)120–20
CNPH*4221A**	1.00	0.96	58MV(B,C)120–20
CSPH*3612A**	0.99	0.95	58MV(B,C)120–20
CSPH*4212A**	1.00	0.96	58MV(B,C)120–20
CAP**4224A**	1.00	0.96	58MVB040–14
CNPH*3617A**	0.99	0.95	58MVB040–14
CNPH*4221A**	1.00	0.96	58MVB040–14
CSPH*3612A**	0.99	0.95	58MVB040–14
CSPH*4212A**	1.00	0.96	58MVB040–14
CAP**3614A**	0.99	0.95	58PH*045–08
CNPH*3617A**	0.99	0.95	58PH*045–08
CNPH*4221A**	1.00	0.96	58PH*045–08
CSPH*3612A**	0.99	0.95	58PH*045–08
CSPH*4212A**	1.00	0.96	58PH*045–08
CAP**3617A**	0.99	0.95	58PH*070–16
CNPH*3617A**	0.99	0.95	58PH*070–16
CNPH*4221A**	1.00	0.96	58PH*070–16
CNPV*3617A**	0.99	0.95	58PH*070–16
CNPV*4217A**	1.00	0.92	58PH*070–16
CSPH*3612A**	0.99	0.95	58PH*070–16
CSPH*4212A**	1.00	0.96	58PH*070–16
CAP**3621A**	0.99	0.91	58PH*090–16
CAP**4221A**	1.00	0.92	58PH*090–16
CNPH*3617A**	0.99	0.91	58PH*090–16
CNPH*4221A**	1.00	0.92	58PH*090–16
CNPV*3621A**	0.99	0.91	58PH*090–16
CNPV*4221A**	1.00	0.92	58PH*090–16
CSPH*3612A**	0.99	0.91	58PH*090–16
CSPH*4212A**	1.00	0.92	58PH*090–16
CAP**3621A**	0.99	0.91	58PH*110–20
CAP**4221A**	1.02	0.93	58PH*110–20
CNPH*3617A**	0.99	0.91	58PH*110–20
CNPH*4221A**	1.02	0.93	58PH*110–20
CNPV*3621A**	0.99	0.91	58PH*110–20
CNPV*4221A**	1.00	0.92	58PH*110–20
CSPH*3612A**	0.99	0.91	58PH*110–20
CSPH*4212A**	1.00	0.92	58PH*110–20

See notes on pg. 34

DETAILED COOLING CAPACITIES* (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR048 Outdoor Section With CNPV*4821A** Indoor Section																			
1460	72 (22.2)	57.22	27.09	3.31	54.16	26.03	3.74	50.83	24.90	4.20	47.23	23.69	4.69	43.24	22.38	5.21	38.87	20.99	5.76
	67(19.4)	52.21	33.21	3.33	49.49	32.17	3.76	46.57	31.08	4.22	43.40	29.91	4.71	39.95	28.66	5.23	36.03	27.26	5.77
	62 (16.7)	47.74	39.31	3.35	45.37	38.29	3.78	42.88	37.19	4.23	40.25	39.91	4.72	37.64	37.64	5.23	34.63	34.63	5.78
	57 (13.9)	46.44	46.44	3.36	44.53	44.53	3.78	42.48	42.48	4.23	40.21	40.21	4.72	37.65	37.65	5.23	34.63	34.63	5.78
1650	72(22.2)	58.13	28.26	3.37	54.91	27.17	3.81	51.42	26.01	4.27	47.67	24.78	4.76	43.52	23.45	5.28	39.26	22.10	5.84
	67(19.4)	53.07	35.09	3.40	50.21	34.03	3.83	47.16	32.91	4.29	43.87	31.73	4.78	40.28	30.44	5.30	36.23	28.99	5.85
	62 (16.7)	48.75	41.89	3.42	46.32	40.79	3.85	43.85	43.85	4.30	41.42	41.42	4.79	38.64	38.64	5.31	35.37	35.37	5.85
	57 (13.9)	48.17	48.17	3.43	46.11	46.11	3.85	43.88	43.88	4.30	41.42	41.42	4.79	38.64	38.64	5.31	35.37	35.37	5.85
1850	72 (22.2)	58.83	29.41	3.45	55.48	28.31	3.88	51.86	27.12	4.35	47.97	25.87	4.84	43.73	24.52	5.36	39.89	23.26	5.92
	67 (19.4)	53.74	36.97	3.48	50.78	35.90	3.91	47.62	34.76	4.37	44.22	33.55	4.86	40.51	32.22	5.38	36.39	30.70	5.93
	62 (16.7)	49.74	44.35	3.50	47.48	47.48	3.92	45.09	45.09	4.38	42.44	42.44	4.87	39.46	39.46	5.38	35.96	35.96	5.93
	57(13.9)	49.69	49.69	3.50	47.49	47.49	3.92	45.09	45.09	4.38	42.45	42.45	4.87	39.46	39.46	5.38	35.97	35.97	5.93

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*4821A**	1.00	1.00	
40QAC048–3	0.97	0.93	
CAP**4817A**	0.99	0.99	
CAP**4821A**	1.00	1.00	
CAP**4824A**	1.00	1.00	
CAP**6021A**	1.01	1.01	
CAP**6024A**	1.01	1.01	
CNPF*4818A**	0.98	0.98	
CNPH*4821A**	1.00	1.00	
CNPH*6024A**	1.01	1.01	
CNPV*4824A**	1.00	1.00	
CNPV*6024A**	1.01	1.01	
CSPH*4812A**	1.00	1.00	
CSPH*6012A**	1.01	1.01	
FE4AN(B,F)005	1.00	0.96	
FE4ANB006	1.01	0.97	
FV4BN(B,F)005	1.00	0.96	
FV4BNB006	1.01	0.97	
FX4CN(B,F)048	1.00	0.96	
FX4CN(B,F)060	1.01	0.97	
FY4ANB060	1.01	1.01	
FY4ANF048	1.00	1.00	
CAP**4817A**	0.99	0.95	58CV(A,X)090–16
CNPH*4821A**	0.99	0.95	58CV(A,X)090–16
CNPH*6024A**	1.00	0.96	58CV(A,X)090–16
CSPH*4812A**	0.99	0.95	58CV(A,X)090–16
CSPH*6012A**	1.00	0.96	58CV(A,X)090–16
CAP**4821A**	0.99	0.95	58CV(A,X)110–20
CAP**6021A**	1.00	0.96	58CV(A,X)110–20
CNPH*4821A**	0.99	0.95	58CV(A,X)110–20
CNPH*6024A**	1.00	0.96	58CV(A,X)110–20
CNPV*4821A**	0.99	0.95	58CV(A,X)110–20
CSPH*4812A**	0.99	0.95	58CV(A,X)110–20
CSPH*6012A**	1.00	0.96	58CV(A,X)110–20
CAP**4824A**	0.99	0.95	58CV(A,X)135–22
CAP**6024A**	1.00	0.96	58CV(A,X)135–22
CNPH*4821A**	0.99	0.95	58CV(A,X)135–22
CNPH*6024A**	1.00	0.96	58CV(A,X)135–22
CNPV*4824A**	0.99	0.95	58CV(A,X)135–22
CNPV*6024A**	1.00	0.96	58CV(A,X)135–22
CSPH*4812A**	0.99	0.95	58CV(A,X)135–22
CSPH*6012A**	1.00	0.96	58CV(A,X)135–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	0.99	0.95	58CV(A,X)155–22
CAP**6024A**	1.00	0.96	58CV(A,X)155–22
CNPH*4821A**	0.99	0.95	58CV(A,X)155–22
CNPH*6024A**	1.00	0.96	58CV(A,X)155–22
CNPV*4824A**	0.99	0.95	58CV(A,X)155–22
CNPV*6024A**	1.00	0.96	58CV(A,X)155–22
CSPH*4812A**	0.99	0.95	58CV(A,X)155–22
CSPH*6012A**	1.00	0.96	58CV(A,X)155–22
CAP**4817A**	0.99	0.95	58MEB080–16
CNPH*4821A**	0.99	0.95	58MEB080–16
CNPH*6024A**	1.00	0.96	58MEB080–16
CSPH*4812A**	0.99	0.95	58MEB080–16
CSPH*6012A**	1.00	0.92	58MEB080–16
CAP**4821A**	0.99	0.95	58MEB100–20
CAP**6021A**	1.00	0.92	58MEB100–20
CNPH*4821A**	0.99	0.95	58MEB100–20
CNPH*6024A**	1.00	0.92	58MEB100–20
CNPV*4821A**	0.99	0.95	58MEB100–20
CSPH*4812A**	0.99	0.95	58MEB100–20
CSPH*6012A**	1.00	0.92	58MEB100–20
CAP**4824A**	0.99	0.95	58MEB120–20
CAP**6024A**	1.00	0.92	58MEB120–20
CNPH*4821A**	0.99	0.95	58MEB120–20
CNPH*6024A**	1.00	0.92	58MEB120–20
CNPV*4824A**	0.99	0.95	58MEB120–20
CNPV*6024A**	1.00	0.92	58MEB120–20
CSPH*4812A**	0.99	0.95	58MEB120–20
CSPH*6012A**	1.00	0.92	58MEB120–20
CAP**4821A**	0.98	0.94	58MV(B,C)080–20
CAP**6021A**	1.00	0.96	58MV(B,C)080–20
CNPH*4821A**	0.99	0.95	58MV(B,C)080–20
CNPH*6024A**	1.00	0.96	58MV(B,C)080–20
CNPV*4821A**	0.99	0.95	58MV(B,C)080–20
CSPH*4812A**	0.99	0.95	58MV(B,C)080–20
CSPH*6012A**	1.00	0.96	58MV(B,C)080–20
CAP**4821A**	0.99	0.95	58MV(B,C)100–20
CAP**6021A**	1.00	0.96	58MV(B,C)100–20
CNPH*4821A**	0.99	0.95	58MV(B,C)100–20
CNPH*6024A**	1.00	0.96	58MV(B,C)100–20
CNPV*4821A**	0.99	0.95	58MV(B,C)100–20
CSPH*4812A**	0.99	0.95	58MV(B,C)100–20
CSPH*6012A**	1.00	0.96	58MV(B,C)100–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	0.99	0.95	58MV(B,C)120–20
CAP**6024A**	1.00	0.96	58MV(B,C)120–20
CNPH*4821A**	0.99	0.95	58MV(B,C)120–20
CNPH*6024A**	1.00	0.96	58MV(B,C)120–20
CNPV*4824A**	0.99	0.95	58MV(B,C)120–20
CNPV*6024A**	1.00	0.96	58MV(B,C)120–20
CSPH*4812A**	0.99	0.95	58MV(B,C)120–20
CSPH*6012A**	1.00	0.96	58MV(B,C)120–20
CAP**4817A**	0.99	0.95	58PH*070–16
CAP**4821A**	0.99	0.95	58PH*090–16
CAP**6021A**	1.00	0.92	58PH*090–16
CNPH*4821A**	0.99	0.95	58PH*090–16
CNPH*6024A**	1.00	0.92	58PH*090–16
CNPV*4821A**	0.99	0.95	58PH*090–16
CSPH*4812A**	0.99	0.95	58PH*090–16
CSPH*6012A**	1.00	0.92	58PH*090–16
CAP**4821A**	0.99	0.95	58PH*110–20
CAP**6021A**	1.00	0.92	58PH*110–20
CNPH*4821A**	0.99	0.95	58PH*110–20
CNPH*6024A**	1.00	0.92	58PH*110–20
CNPV*4821A**	0.99	0.95	58PH*110–20
CSPH*4812A**	0.99	0.95	58PH*110–20
CSPH*6012A**	1.00	0.92	58PH*110–20
CAP**4824A**	0.99	0.95	58PH*135–20
CAP**6024A**	1.00	0.92	58PH*135–20
CNPH*4821A**	0.99	0.95	58PH*135–20
CNPH*6024A**	1.00	0.92	58PH*135–20
CNPV*4824A**	0.99	0.95	58PH*135–20
CNPV*6024A**	1.00	0.92	58PH*135–20
CSPH*4812A**	0.99	0.95	58PH*135–20
CSPH*6012A**	1.00	0.92	58PH*135–20

See notes on pg. 34

DETAILED COOLING CAPACITIES** (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38HDR060 Outdoor Section With CNPV*6024A** Indoor Section																			
1750	72 (22.2)	68.88	33.36	4.20	65.13	32.05	4.64	60.97	30.62	5.12	56.47	29.10	5.64	51.66	27.52	6.20	46.31	25.80	6.80
	67(19.4)	63.28	41.18	4.15	59.98	39.91	4.59	56.34	38.52	5.08	52.38	37.05	5.60	48.00	35.44	6.17	43.23	33.69	6.77
	62 (16.7)	58.24	48.95	4.11	55.37	47.69	4.55	52.27	46.30	5.04	48.91	48.85	5.57	45.63	45.63	6.15	41.69	41.69	6.76
	57 (13.9)	56.77	56.77	4.09	54.45	54.45	4.54	51.86	51.86	5.03	48.95	48.95	5.57	45.63	45.63	6.15	41.69	41.69	6.76
2000	72(22.2)	69.89	34.93	4.31	65.94	33.59	4.75	61.58	32.12	5.23	56.96	30.59	5.74	52.01	29.02	6.31	47.30	27.45	6.92
	67(19.4)	64.28	43.75	4.26	60.81	42.45	4.70	57.00	41.04	5.18	52.88	39.53	5.71	48.32	37.86	6.27	43.82	36.17	6.88
	62 (16.7)	59.48	52.47	4.22	56.55	51.08	4.66	53.58	53.58	5.15	50.40	50.40	5.68	46.78	46.78	6.26	42.62	42.62	6.87
	57 (13.9)	58.96	58.96	4.21	56.42	56.42	4.66	53.58	53.58	5.15	50.40	50.40	5.68	46.78	46.78	6.26	42.60	42.60	6.87
2250	72 (22.2)	70.60	36.41	4.42	66.50	35.04	4.86	61.97	33.55	5.33	57.25	32.02	5.85	52.14	30.44	6.41	48.41	29.01	7.04
	67 (19.4)	65.01	46.21	4.37	61.41	44.89	4.81	57.46	43.44	5.29	53.20	41.88	5.81	48.56	40.17	6.37	44.28	38.42	6.99
	62 (16.7)	60.67	60.67	4.33	58.00	58.00	4.78	54.94	54.94	5.26	51.52	51.52	5.79	47.63	47.63	6.36	43.18	43.18	6.98
	57(13.9)	60.73	60.73	4.33	58.00	58.00	4.78	54.94	54.94	5.26	51.52	51.52	5.79	47.63	47.63	6.36	43.14	43.14	6.98

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*6024A**	1.00	1.00	
40QAC060–3	0.98	0.98	
CAP**6021A**	1.00	1.00	
CAP**6024A**	1.00	1.00	
CNPH*6024A**	1.00	1.00	
CSPH*6012A**	1.00	1.00	
FE4ANB006	1.01	1.01	
FV4BNB006	1.01	1.01	
FX4CN(B,F)060	1.01	1.01	
FY4ANB060	1.00	1.00	
CAP**6021A**	0.98	0.98	58CV(A,X)110–20
CNPH*6024A**	0.98	0.98	58CV(A,X)110–20
CSPH*6012A**	0.98	0.98	58CV(A,X)110–20
CAP**6024A**	0.98	0.98	58CV(A,X)135–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6024A**	0.98	0.98	58CV(A,X)135–22
CNPV*6024A**	0.98	0.98	58CV(A,X)135–22
CSPH*6012A**	0.98	0.98	58CV(A,X)135–22
CAP**6024A**	0.98	0.98	58CV(A,X)155–22
CNPH*6024A**	0.98	0.98	58CV(A,X)155–22
CNPV*6024A**	0.98	0.98	58CV(A,X)155–22
CSPH*6012A**	0.98	0.98	58CV(A,X)155–22
CNPH*6024A**	0.98	0.98	58MEB080–16
CSPH*6012A**	0.98	0.98	58MEB080–16
CAP**6021A**	0.98	0.98	58MEB100–20
CNPH*6024A**	0.98	0.98	58MEB100–20
CSPH*6012A**	0.98	0.98	58MEB100–20
CAP**6024A**	0.98	0.98	58MEB120–20
CNPH*6024A**	0.98	0.98	58MEB120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*6024A**	0.98	0.98	58MEB120–20
CSPH*6012A**	0.98	0.98	58MEB120–20
CSPH*6012A**	0.98	0.98	58MV(B,C)120–20
CAP**6021A**	0.98	0.98	58PH*090–16
CNPH*6024A**	0.98	0.98	58PH*090–16
CSPH*6012A**	0.98	0.98	58PH*090–16
CAP**6021A**	0.98	0.98	58PH*110–20
CNPH*6024A**	0.98	0.98	58PH*110–20
CSPH*6012A**	0.98	0.98	58PH*110–20
CAP**6024A**	0.98	0.98	58PH*135–20
CNPH*6024A**	0.98	0.98	58PH*135–20
CNPV*6024A**	0.98	0.98	58PH*135–20
CSPH*6012A**	0.98	0.98	58PH*135–20

NOTE: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

* Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per the latest edition of AHRI standard 210/240. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).
When the required data fall between the published data, interpolation may be performed.

** Total system kW is total of indoor and outdoor unit kilowatts.

CONDENSER ONLY RATINGS*

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.8)	65 (18.3)	75 (23.9)	85 (29.4)	95 (35)	105 (40.6)	115 (46.1)	125 (51.7)
38HDR018–31									
30 (–1.6)	TCG	16.20	15.30	14.30	13.40	12.40	11.40	10.30	9.20
	SDT	67.40	77.00	86.50	96.00	105.50	114.90	124.40	133.70
	KW	0.86	0.98	1.11	1.26	1.42	1.59	1.77	1.96
35 (1.7)	TCG	17.90	16.90	15.90	14.80	13.80	12.70	11.60	10.40
	SDT	68.50	78.00	87.50	97.00	106.40	115.80	125.20	134.50
	KW	0.86	0.98	1.11	1.26	1.42	1.59	1.78	1.98
40 (4.4)	TCG	19.70	18.60	17.50	16.40	15.20	14.10	12.90	11.60
	SDT	69.70	79.10	88.60	98.00	107.40	116.80	126.10	135.30
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	1.99
45 (7.2)	TCG	21.60	20.40	19.20	18.00	16.80	15.50	14.20	12.80
	SDT	70.90	80.30	89.70	99.00	108.40	117.70	127.00	136.10
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	2.00
50 (10)	TCG	23.60	22.30	21.10	19.70	18.40	17.00	15.60	14.10
	SDT	72.20	81.50	90.80	100.10	109.40	118.60	127.80	136.90
	KW	0.85	0.97	1.11	1.26	1.42	1.60	1.79	2.00
55 (12.8)	TCG	25.70	24.30	22.90	21.50	20.00	18.60	17.00	15.40
	SDT	73.50	82.70	92.00	101.20	110.40	119.60	128.70	137.70
	KW	0.85	0.97	1.10	1.25	1.42	1.60	1.79	2.00
38HDR024–32									
30 (–1.6)	TCG	22.10	20.90	19.60	18.30	16.90	15.50	14.00	12.40
	SDT	69.00	78.50	88.00	97.40	106.80	116.10	125.30	134.50
	KW	1.08	1.24	1.41	1.60	1.80	2.02	2.25	2.48
35 (1.7)	TCG	24.30	23.00	21.70	20.30	18.80	17.20	15.60	13.80
	SDT	70.30	79.80	89.20	98.60	107.90	117.10	126.30	135.40
	KW	1.09	1.24	1.42	1.61	1.82	2.04	2.28	2.52
40 (4.4)	TCG	26.80	25.30	23.90	22.30	20.70	19.00	17.20	15.30
	SDT	71.70	81.10	90.50	99.80	109.10	118.20	127.30	136.30
	KW	1.10	1.26	1.43	1.62	1.83	2.06	2.30	2.55
45 (7.2)	TCG	29.40	27.80	26.20	24.50	22.70	20.90	18.90	16.70
	SDT	73.20	82.60	91.90	101.10	110.20	119.30	128.30	137.10
	KW	1.11	1.27	1.44	1.64	1.85	2.08	2.32	2.57
50 (10)	TCG	32.10	30.40	28.60	26.80	24.80	22.70	20.50	18.10
	SDT	74.80	84.10	93.30	102.40	111.50	120.40	129.20	137.90
	KW	1.12	1.28	1.46	1.65	1.86	2.09	2.33	2.59
55 (12.8)	TCG	35.00	33.10	31.20	29.10	26.90	24.60	22.20	19.50
	SDT	76.40	85.60	94.70	103.80	112.70	121.50	130.20	138.60
	KW	1.13	1.29	1.47	1.66	1.88	2.10	2.35	2.60
38HDR030–31									
30 (–1.6)	TCG	26.20	24.70	23.20	21.70	20.10	18.40	16.80	15.30
	SDT	72.00	82.30	92.90	103.80	115.00	126.90	139.00	148.90
	KW	1.30	1.48	1.69	1.92	2.19	2.50	2.84	3.12
35 (1.7)	TCG	28.80	27.30	25.70	24.10	22.40	20.60	18.90	17.40
	SDT	73.10	83.50	94.00	104.80	116.10	127.70	139.50	149.30
	KW	1.30	1.49	1.69	1.93	2.21	2.52	2.86	3.15
40 (4.4)	TCG	31.70	30.10	28.40	26.60	24.80	23.00	21.20	19.60
	SDT	74.30	84.70	95.20	105.90	117.10	128.60	140.00	149.70
	KW	1.31	1.49	1.70	1.94	2.22	2.53	2.87	3.18
45 (7.2)	TCG	34.80	33.10	31.20	29.40	27.40	25.50	23.60	21.90
	SDT	75.60	85.90	96.40	107.10	118.10	129.40	140.60	150.10
	KW	1.31	1.50	1.71	1.95	2.22	2.54	2.88	3.19
50 (10)	TCG	38.20	36.20	34.30	32.30	30.30	28.20	26.20	24.40
	SDT	76.90	87.20	97.60	108.20	119.20	130.30	141.10	150.50
	KW	1.32	1.50	1.71	1.95	2.23	2.55	2.89	3.20
55 (12.8)	TCG	41.70	39.70	37.60	35.50	33.30	31.10	29.00	27.10
	SDT	78.30	88.50	98.90	109.40	120.20	131.20	141.80	150.90
	KW	1.32	1.51	1.72	1.96	2.24	2.55	2.89	3.20
38HDR036–31									
30 (–1.6)	TCG	30.10	28.50	26.80	25.10	23.30	21.50	19.60	17.60
	SDT	70.90	80.80	90.90	101.00	111.20	121.60	132.30	143.30
	KW	1.50	1.71	1.94	2.20	2.50	2.83	3.19	3.58
35 (1.7)	TCG	33.20	31.50	29.70	27.80	25.90	24.00	21.90	19.90
	SDT	72.00	82.00	92.00	102.10	112.30	122.80	133.30	143.80
	KW	1.50	1.71	1.95	2.21	2.52	2.85	3.21	3.60
40 (4.4)	TCG	36.50	34.60	32.70	30.70	28.70	26.60	24.40	22.30
	SDT	73.30	83.20	93.20	103.20	113.40	123.60	134.10	144.50
	KW	1.51	1.72	1.95	2.22	2.52	2.85	3.23	3.63
45 (7.2)	TCG	40.10	38.10	36.00	33.80	31.70	29.40	27.10	24.80
	SDT	74.60	84.40	94.40	104.50	113.80	124.50	135.20	145.30
	KW	1.51	1.72	1.96	2.23	2.51	2.86	3.26	3.65
50 (10)	TCG	43.90	41.70	39.50	37.10	34.90	32.40	30.00	27.60
	SDT	75.90	85.80	95.70	105.90	115.50	125.90	136.20	146.00
	KW	1.52	1.73	1.97	2.24	2.54	2.89	3.27	3.66
55 (12.8)	TCG	48.00	45.70	43.30	40.70	38.30	35.70	33.10	30.50
	SDT	77.40	87.10	97.00	107.10	116.70	126.80	137.00	146.70
	KW	1.53	1.74	1.98	2.25	2.55	2.89	3.28	3.66

See notes on page 38

CONDENSER ONLY RATINGS* CONTINUED

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.8)	65 (18.3)	75 (23.9)	85 (29.4)	95 (35)	105 (40.6)	115 (46.1)	125 (51.7)
38HDR048–32									
30 (–1.6)	TCG	48.40	45.50	42.50	39.50	36.20	32.90	30.60	28.10
	SDT	67.90	77.30	86.70	96.00	105.40	114.70	124.30	133.80
	KW	2.05	2.39	2.75	3.15	3.56	4.01	4.49	5.00
35 (1.7)	TCG	53.40	50.20	46.90	43.40	39.60	35.70	34.00	25.50
	SDT	69.10	78.40	87.80	97.00	106.20	115.40	125.10	133.00
	KW	2.02	2.37	2.74	3.14	3.56	4.01	4.51	4.99
40 (4.4)	TCG	58.70	55.10	51.40	47.50	43.10	38.30	33.00	27.10
	SDT	70.40	79.60	88.90	98.00	107.10	116.10	124.80	133.40
	KW	1.99	2.35	2.72	3.13	3.55	4.01	4.49	4.99
45 (7.2)	TCG	64.30	60.30	56.20	51.60	46.90	41.20	35.20	28.90
	SDT	71.80	80.90	90.00	99.10	108.10	116.80	125.40	133.80
	KW	1.96	2.32	2.70	3.11	3.54	4.00	4.48	4.99
50 (10)	TCG	70.30	65.80	61.10	55.80	50.40	44.20	37.30	34.60
	SDT	73.30	82.30	91.20	100.10	108.90	117.50	125.90	135.30
	KW	1.92	2.29	2.68	3.09	3.52	3.98	4.46	5.01
55 (12.8)	TCG	76.50	71.40	66.00	60.30	54.00	47.00	50.70	41.10
	SDT	74.80	83.60	92.50	101.20	109.80	118.20	129.40	137.00
	KW	1.88	2.25	2.64	3.06	3.49	3.95	4.57	5.05
38HDR060–32									
30 (–1.6)	TCG	59.30	55.30	50.90	46.20	40.40	37.90	33.80	30.30
	SDT	70.10	79.30	88.40	97.40	106.20	115.80	124.90	134.20
	KW	2.59	2.93	3.31	3.73	4.19	4.72	5.31	5.90
35 (1.7)	TCG	64.70	60.20	55.50	50.00	43.30	42.40	31.50	33.10
	SDT	71.40	80.50	89.50	98.40	106.90	116.90	124.20	134.90
	KW	2.62	2.97	3.34	3.76	4.21	4.76	5.25	5.93
40 (4.4)	TCG	69.90	65.30	60.10	53.80	55.90	47.40	31.70	35.60
	SDT	72.70	81.70	90.60	99.30	110.10	118.10	124.20	135.50
	KW	2.66	3.00	3.38	3.78	4.34	4.81	5.24	5.96
45 (7.2)	TCG	76.00	70.80	64.80	57.40	56.00	54.60	48.50	47.70
	SDT	74.10	83.00	91.80	100.20	110.00	119.90	128.60	138.80
	KW	2.71	3.04	3.40	3.80	4.32	4.89	5.43	6.08
50 (10)	TCG	82.20	76.70	69.30	70.90	61.80	58.60	30.50	52.10
	SDT	75.60	84.40	92.80	103.40	111.40	120.90	123.80	139.80
	KW	2.75	3.09	3.42	3.99	4.38	4.93	5.16	6.13
55 (12.8)	TCG	95.20	87.70	88.40	74.60	75.40	53.90	46.10	60.30
	SDT	78.80	87.10	97.50	104.30	114.70	119.50	127.70	141.70
	KW	2.85	3.13	3.74	3.95	4.56	4.78	5.33	6.25

* AHRI listing applies only to systems shown in Combination Ratings table.

KW – Outdoor Unit Kilowatts Only.

SDT – Saturated Temperature Leaving Compressor (°F)

SST – Saturated Temperature Entering Compressor (°F/°C)

TCG – Gross Cooling Capacity (1000 Btuh)

GUIDE SPECIFICATIONS
GENERAL

System Description

Outdoor-mounted, air-cooled, split-system air conditioner unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air horizontally as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

Quality Assurance

- — Unit will be rated in accordance with the latest edition of ARI Standard 210.
- — Unit will be certified for capacity and efficiency, and listed in the latest ARI directory.
- — Unit construction will comply with latest edition of ANSI/ ASHRAE and with NEC.
- — Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL approval.
- — Unit cabinet will be capable of withstanding Federal Test
  Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- — Air-cooled condenser coils will be leak tested and pressure tested
- — Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- — Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

- — U.S. and Canada only.

PRODUCTS

Equipment

- — Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A), and special features required prior to field start-up.

Unit Cabinet

- — Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

Fans

- — Condenser fan will be direct-drive propeller type, discharging air horizontally.
- — Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- — Fan blades will be statically and dynamically balanced.
- — Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- — Compressor will be hermetically sealed.
- — Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- — Condenser coil will be air cooled.
- — Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

Refrigeration Components

- — Refrigeration circuit components will include liquid-line front-seating shutoff valve with sweat connections, vapor-line front-seating shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, and compressor oil.
- — Unit will be equipped with high-pressure switch, low pressure switch and filter drier for Puron refrigerant.

Operating Characteristics

- — The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- — Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- — The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- — Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- — Nominal unit electrical characteristics will be _____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- — Unit electrical power will be single point connection.
- — Control circuit will be 24v.

Special Features

- — Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

SYSTEM DESIGN SUMMARY

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or 35 ft (10.7 m) vertical differential, consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
6. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
7. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
8. Do not apply capillary tube indoor coils to these units.
9. Factory-supplied filter drier must be installed.

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Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

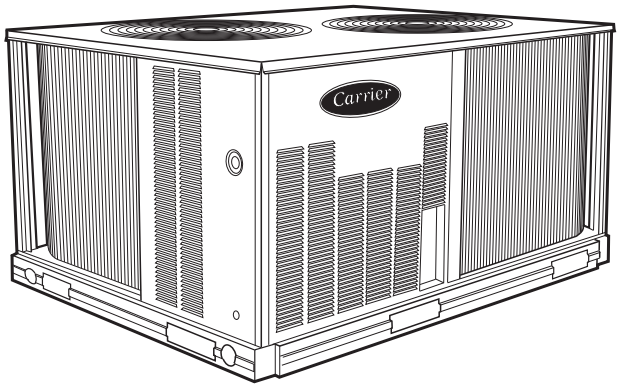
Replaces: 38HDR–3PD

38AUZ/D 50 Hz
Commercial Split Systems
Air Conditioning Condensing Units
18.3 kW to 59.2 kW

Carrier
turn to the experts

Product Data

Gemini



C09227

38AUZ07-08 shown

Certified to ISO 9001

Carrier's air-cooled air conditioning split systems:

- provide a logical solution for commercial needs
- have a rugged, dependable construction
- are available in single and circuit scroll compressor capacity control
- have cooling capability up to 52°C (125°F) ambient and down to 2°C (35°F) ambient standard

FEATURES/BENEFITS

These dependable outdoor air cooled condensing units match Carrier's indoor-air handlers to meet a wide selection of cooling solutions.

Constructed for long life

The 38AUZ single circuit and 38AUD dual circuit, scroll compressor models are designed and built to last. The high efficient designed outdoor coil construction allows for a more efficient design in a smaller cabinet size that utilizes an overall reduction in refrigerant charge. Where conditions require, special coil coating coil protection option is available. Cabinets are constructed of prepainted galvanized steel, delivering unparalleled protection from the environment. Inside and outside surfaces are protected to ensure long life, good looks, and reliable operation. Safety controls are used for enhanced system protection and reliability.

Each unit utilizes the Comfort Alert diagnostic and troubleshoot control system. This protects the units operation and provides valuable diagnostic information when required.

Factory-installed options (FIOPs)

Certified and pre-engineered factory-installed options (FIOPs) allow units to be installed in less time, thereby reducing installed cost. FIOPs include:

- low ambient controls which provide cooling operation down to -29°C (-20°F) ambient temperatures
- non-fused disconnect
- special coil coating coil protection
- louvered hail guard

FEATURES AND BENEFITS (cont.)

Efficient operation

These air cooled condensing units will provide EER's up to 12.6 (tested in accordance with ASHRAE 90.1 standards).

This high efficiency will help reduce overall operating cost and energy consumption.

Controls for performance dependability

The 38AU condensing units offer operating controls and components designed for performance dependability. The high efficiency hermetic scroll compressor is engineered for long life and durability. The compressors include vibration isolation for quiet operation. The high-pressure switch protects the entire refrigeration system from abnormally high operating pressures. A low-pressure switch protects the system from loss of charge. These units also include anti-short-cycling protection, which helps to protect the units against compressor failure.

All units include a crankcase heater to eliminate liquid slugging at start-up. Each unit comes standard with the Comfort Alert™ control system. This provides:

- System Go LED indicator
- Fault LED indicator
- Compressor fault LED indicator
- Phase loss protection
- Phase reversal protection
- Safety pressure indicator
- Anti-short cycle protection

Innovative Carrier 40RU packaged air handlers are custom matched to 38AUZ/D condensing units

Information on matching 40RU DX packaged air handler follows for convenience. See separate product data for more details. The 40RU Series has excellent fan performance, efficient direct-expansion (DX) coils, a unique combination of indoor-air quality features, and is easy to install. Its versatility and state-of-the-art features help to ensure economical performance of the split system both now and in the future.

Indoor-air quality (IAQ) features

The unique combination of IAQ features in the 40RU Series air handlers help to ensure that only clean, fresh, conditioned air is delivered to the occupied space.

Direct-expansion (DX) 4 row cooling coils prevent the build-up of humidity in the room, even during part-load conditions.

Standard 2-in. (51mm) disposable filters remove dust and airborne particles from the occupied space for cleaner air.

The pitched, non-corroding drain pan can be adjusted for a right-hand or left-hand connection to suit many applications and provide positive drainage and prevent standing condensate.

The accessory economizer can provide ventilation air to improve indoor-air quality by using demand control ventilation. When used in conjunction with Carrier Comfort System and CO_2 sensors, the economizer admits fresh outdoor air to replace stale, recirculated indoor air.

Economy

The 40RU Series packaged air handlers provide reduced installation expense and energy-efficient performance.

Quick installation is ensured by the multipoise design. Units can be installed in either the horizontal or vertical configuration without modifications. Fan motors and contactors are pre-wired and thermostatic expansion valves (TXVs) are factory-installed on all 40RU models.

High efficiency, precision-balanced fans minimize air turbulence, surging, and unbalanced operation, cutting operation expenses.

The economizer accessory precisely controls the blend of outdoor air and room air to achieve comfort levels. When the outside air enthalpy is suitable, outside air dampers can fully open to provide "free" cooling without energizing mechanical cooling.

Rugged dependability

The 40RU series units are made to last. The die-formed galvanized steel panels ensure structural integrity under all operating conditions. Galvanized steel fan housings are securely mounted to a die-formed galvanized steel fan deck.

Rugged pillow-block bearings (40RU14) are securely fastened to the solid steel fan shaft with split collets and clamp locking devices. Smaller unit sizes have spider-type bearings.

Coil flexibility

Model 40RU direct- expansion coils have galvanized steel casings; inlet and outlet connections are on the same end. The coils are designed for use with Puron (R-410A) refrigerant and have $^3/_8$-in. diameter copper tubes mechanically bonded to aluminum sine-wave fins. The coils include matched, factory-installed thermostatic expansion valves (TXVs) with matching distributor nozzles and offers a removable power element and extended connections.

Easier installation and service

The multipoise design and component layout ensures quick unit installation and operation. Units can be converted from horizontal to vertical operation by simply repositioning the unit. Drain pan connections are duplicated on both sides of the unit. The filters, motor, drive, TXVs, and coil connections are all easily accessed by removing a single side panel.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3	8	A	U	Z	A	0	7	A	0	A	9	–	0	A	0	A	0

Model Type
Commercial Air Cooled Cond. Unit
Puron® R–410A Refrigerant

Type of Coil
D = Dual Circuit
Z = Single Circuit

Refrigerant Options
A = Standard
B = Low Ambient Controls

Nominal Tonnage
07 = 18.3 kW (5.2 Tons)
08 = 23.2 kW (6.6 Tons)
12 = 29.1 kW (8.3 Tons)
14 = 35.2 kW (10.0 Tons)
16 = 45.8 kW (13.0 Tons)
25 = 59.2 kW (16.8 Tons)

Factory Assigned
A = Default

Factory Assigned
0 = Default

Coil Options (Condenser)
With Round Tube/Plate Fin Design
All models except 14 size (12.5 Ton)
A = Al/Cu Standard
B = Pre Coat Al/Cu
C = E–Coat Al/Cu
E = Cu/Cu
M = Al/Cu Standard with louvered hail guard
N = Pre Coat Al/Cu with louvered hail guard
P = E–Coat Al/Cu with louvered hail guard
R = Cu/Cu – Louvered hail guard
Coil Options (Condenser)
With All Aluminum – NOVATION Design (07–16 sizes)
G = Al/Al Standard
K = E–Coat Al/Al
T = Al/Al with louvered hail guard
W = E–Coat Al/Al with louvered hail guard

Voltage
9 = 400–3–50

Design Rev
– = Factory Assigned

Base Unit Controls
0 = Standard Electro–Mechanical Controls

Factory Assigned
A = Default

Service Options
0 = None

Electrical Options
A = None
C = Non–Fused Disconnect

Brand / Packaging
0 = Standard
1 = LTL

AHRI CAPACITY RATINGS

UNIT	COOLING STAGES	NOM. CAPACITY (TONS)	NET COOLING CAPACITY (MBH)	TOTAL POWER (kW)	EER
38AUZ07/40RU07	1	5	62.7	5.1	12.2
38AUZ08/40RU08	1	6.3	79.3	6.9	11.5
38AUD12/40RU12	2	8.3	103.0	8.2	12.6
38AUD14/40RU14	2	10.4	125.0	10.9	11.5
38AUD16/40RU16	2	12.5	162.0	13.5	12.0
38AUD25/40RU25	2	16.7	202.2	16.6	12.2

LEGEND

AHRI – Air Conditioning, Heating and Refrigeration Institute
ASHRAE – American Society of Heating, Refrigerating and Air Conditioning, Inc.
EER – Energy Efficiency Ratio
IEER – Integrated Energy Efficiency Ratio

NOTES

1. Rated in accordance with AHRI Standard 340/360, as appropriate.
2. Ratings are based on:
   Cooling Standard: 27°C (80°F) db, 19°C (67°F) wb indoor air temp and 35°C (95°F) db outdoor air temp.
3. All units comply with ASHRAE 90.1 Energy Standard for minimum EER and IEER requirements.

SOUND POWER LEVELS, dB

UNIT	COOLING STAGES	OUTDOOR SOUND (dB)								
		A–WEIGHTED	63	125	250	500	1000	2000	4000	8000
NOVATION – All Aluminum Coil Design										
38AUZ07	1	82	78.7	91.2	84.4	79.7	76.9	73.5	71.9	67.5
38AUZ08	1	81	81.7	89.7	82.6	77.6	74.4	70.3	68.0	64.2
38AUD12	2	78	79.2	81.1	78.4	75.0	72.9	68.2	66.4	68.2
38AUD14	2	79	76.2	78.6	78.1	75.1	75.2	71.4	67.9	65.1
38AUD16	2	80	90.3	81.8	78.0	76.7	75.2	70.5	66.4	61.9
RTPF – Round Tube/Plate Fin Coil Design										
38AUZ07	1	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUZ08	1	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUD12	2	80	76.0	79.9	79.8	77.4	75.6	69.8	67.8	66.4
38AUD16	2	83	86.7	81.2	78.9	80.4	78.0	74.2	70.2	65.0
38AUD25	2	85	91.0	85.0	80.0	86.0	79.0	73.0	68.0	63.0

NOTE: Outdoor sound data is measure in accordance with AHRI standard 270–2008.
LEGEND:
dB = Decibel

PHYSICAL DATA

SINGLE CIRCUIT MODELS with RTPF – Round Tube/Plate Fin Coil Design		
	38AUZ07	**38AUZ08**
Refrigeration System		
# Circuits / # Comp. / Type	1 / 1 / Scroll	1 / 1 / Scroll
R–410a shipping charge A/B (lbs, 50 Hz)	11	13
System charge w/ fan coil* (50 Hz)	14	17
Metering device	TXV	TXV
High–press. Trip / Reset (psig)	630 / 505	630 / 505
Low–press. Trip / Reset (psig)	54 / 117	54 / 117
Cond. Coil		
Material	Al/Cu	Al/Cu
Coil type	RTPF	RTPF
Rows / FPI	2 / 17	2 / 17
Total face area (ft2)	17.5	17.5
Cond. fan / motor		
Qty / Motor drive type	2 / direct	2 / direct
Motor HP / RPM	1/4 / 1100	1/4 / 1100
Fan diameter (in)	22	22
Nominal Airflow (cfm)	6000	6000
Watts (total)	610	610
Piping Connections		
Qty / Suction (in. ODS)	1 / 1 1/8	1 / 1 1/8
Qty / Liquid (in. ODS)	1 / 3/8	1 / 1/2

SINGLE CIRCUIT MODELS with NOVATION – All Aluminum coil Design		
	38AUZ07	**38AUZ08**
Refrigeration System		
# Circuits / # Comp. / Type	1 / 1 / Scroll	1 / 1 / Scroll
R–410a shipping charge A/B (lbs)	4.4	4.9
System charge w/ fan coil	8.4	10.2
System charge w/ fan coil (50hz)	9.0	12.3
Metering device	TXV	TXV
High–press. Trip / Reset (psig)	630 / 505	630 / 505
Low–press. Trip / Reset (psig)	54 / 117	54 / 117
Cond. Coil		
Material	Al	Al
Coil type	microchannel	microchannel
Rows / FPI	1 / 17	1 / 17
total face area (ft2)	17.5	20.5
Cond. fan / motor		
Qty / Motor drive type	2 / direct	2 / direct
Motor HP / RPM	1/4 / 1100	1/4 / 1100
Fan diameter (in)	22	22
Nominal Airflow (cfm)	6,000	6,000
Watts (total)	610	610

RTPF – Round tube /plate fin design

* Approximate system charge with about 25 ft piping of sizes indicated with matched 40RU.

PHYSICAL DATA (CONT)

DUAL CIRCUIT MODELS with RTPF – Round Tube/Plate Fin Coil Design			
	38AUD12	**38AUD16**	**38AUD25**
Refrigeration System			
# Circuits / # Comp. / Type	2 / 2 / Scroll	2 / 2 / Scroll	2 / 2 / Scroll
R–410a shipping charge A/B (lbs, 50 Hz)	8.0 / 8.0	16.0 / 16.0	14.0 / 14.0
System charge w/ fan coil* (50 Hz)	11.0 / 10.0	22.0 / 22.0	19.0 / 19.0
Metering device	TXV	TXV	TXV
High–press. Trip / Reset (psig)	630 / 505	630 / 505	630 / 505
Low–press. Trip / Reset (psig)	54 / 117	54 / 117	54 / 117
Compressor			
Model	ZP51 (2)	ZP83 (2)	ZP103 (2)
Oil Charge A/B (oz)	42 / 42	60 / 60	110 / 110
Speed rpm 50 Hz	2900	2900	2900
Cond. Coil			
Material	Al/Cu	Al/Cu	Al/Cu
Coil type	RTPF	RTPF	RTPF
Rows / FPI	2 / 17	2 / 17	2 / 17
Total face area (ft2)	25.1	23.5 x 2	25.0 x 2
Cond. fan / motor			
Qty / Motor drive type	2 / direct	3 / direct	4 / direct
Motor HP / RPM	1/4 / 1100	1/4 / 1100	1/4 / 1100
Fan diameter (in)	22	22	22
Nominal Airflow (cfm)	6000	9000	12000
Watts (total)	610	970	1150
Piping Connections			
Qty / Suction (in. ODS)	2 / 1 1/8	2 / 1 3/8	2 / 1 3/8
Qty / Liquid (in. ODS)	2 / 3/8	2 / 1/2	2 / 1/2

DUAL CIRCUIT MODELS with NOVATION – All Aluminum coil Design			
	38AUD12	**38AUD14**	**38AUD16**
Refrigeration System			
# Circuits / # Comp. / Type	2/2/Scroll	2/2/Scroll	2/2/Scroll
R–410a shipping charge A/B (lbs)	3.0 /3.1	3.7/3.9	6.1/6.1
System charge w/ fan coil	7.4 / 7.4	10.8 / 10.8	12.0/12.0
System charge w/ fan coil (50hz)	7.5 / 7.5	11.2 / 11.2	14.0 /14.0
Metering device	TXV	TXV	TXV
High–press. Trip / Reset (psig)	630 / 505	630 / 505	630 / 505
Low–press. Trip / Reset (psig)	54 / 117	54 / 117	54 / 117
Cond. Coil			
Material	Al	Al	Al
Coil type	microchannel	microchannel	microchannel
Rows / FPI	1 / 17	1 / 17	1 / 17
total face area (ft2)	25.0	31.8	25.0 x 2
Cond. fan / motor			
Qty / Motor drive type	2 / direct	2 / direct	3 / direct
Motor HP / RPM	1/4 / 1100	1/4 / 1100	1/4 / 1100
Fan diameter (in)	22	22	22
Nominal Airflow (cfm)	6,000	6,000	10,000
Watts (total)	610	610	970

RTPF – Round tube /plate fin design

* Approximate system charge with about 25 ft piping of sizes indicated with matched 40RU.

DIMENSIONS

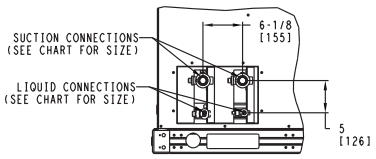
UNIT	STD. UNIT WT.		CORNER A		CORNER B		CORNER C		CORNER D		CENTER OF GRAVITY			UNIT HEIGHT
	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	X	Y	Z	H
38AUZ-07 (MCHX)	149	328	58	128	31	68	28	62	32	70	21 [533.4]	19 [482.6]	13 [330.2]	42-3/8 [1076.0]
38AUZ-08 (MCHX)	160	353	63	138	33	72	29	65	35	78	19 [482.6]	23 [584.2]	13 [330.2]	42-3/8 [1076.0]
38AUD-12 (MCHX)	226	499	88	193	50	111	38	72	56	123	20 [508.0]	23 [584.2]	15 [381.0]	50-3/8 [1279.2]
38AUD-14 (MCHX)	229	505	86	190	40	88	34	76	68	151	20 [508.0]	24 [609.6]	15 [381.0]	50-3/8 [1279.2]
38AUZ-07 (RTPF)	176	389	64	141	44	96	28	62	41	91	18 [457.2]	24 [609.6]	21 [533.4]	42-3/8 [1076.0]
38AUZ-08 (RTPF)	177	391	64	142	44	96	28	62	41	91	18 [457.2]	24 [609.6]	21 [533.4]	42-3/8 [1076.0]
38AUD-12 (RTPF)	234	516	84	185	53	117	38	83	59	131	19 [482.6]	23 [584.2]	24 [609.6]	50-3/8 [1279.2]

CG CENTER OF GRAVITY

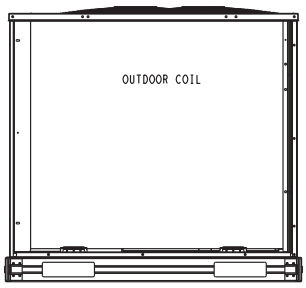
DIRECTION OF AIR FLOW

DIMENSIONS IN [ ] ARE IN MM

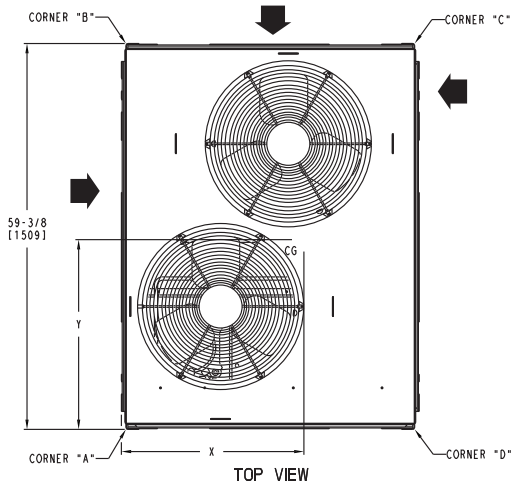
SERVICE VALVE CONNECTIONS		
UNIT	SUCTION	LIQUID
38AUZ07	1-1/8 [28.6]	3/8 [9.5]
38AUZ08	1-1/8 [28.6]	1/2 [12.7]
38AUD12	1-1/8 [28.6]	3/8 [9.5]
38AUD14	1-3/8 [34.9]	1/2 [12.7]



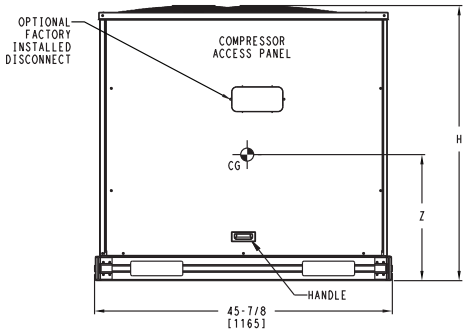
RIGHT SIDE VIEW
(FOR 38AUD SYSTEMS)



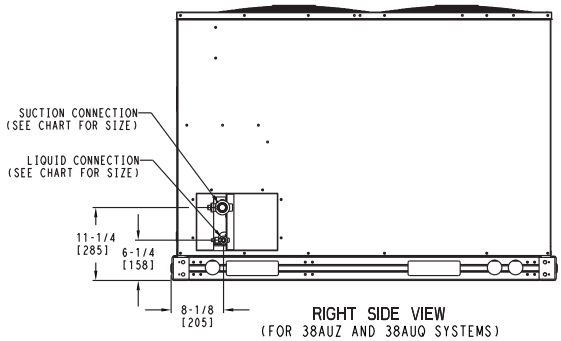
BOTTOM VIEW



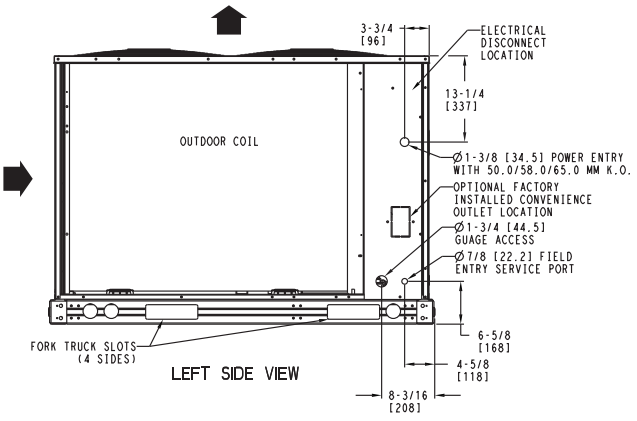
TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW
(FOR 38AUZ AND 38AUQ SYSTEMS)



LEFT SIDE VIEW

NOTES:

1. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
   A. BOTTOM TO COMBUSTIBLE SURFACES: 0 INCHES.
   B. OUTDOOR COIL, FOR PROPER AIR FLOW: 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
   C. OVERHEAD: 60 INCHES, TO ASSURE PROPER OUTDOOR FAN OPERATION.
   D. BETWEEN UNITS: CONTROL BOX SIDE, 42 INCHES PER NEC.
   E. BETWEEN UNIT AND UNGROUNDED SURFACES: CONTROL BOX SIDE, 36 INCHES PER NEC.
   F. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES: CONTROL BOX SIDE, 42 INCHES PER NEC.
2. WITH EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTE 1B, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
3. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B OR C ROOF COVERING MATERIAL.

C10590

DIMENSIONS (cont.)

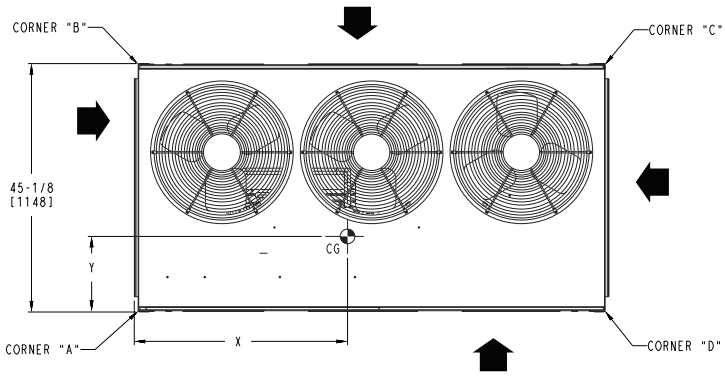
UNIT	STD. UNIT WT.		CORNER A		CORNER B		CORNER C		CORNER D		CENTER OF GRAVITY			UNIT HEIGHT
	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	X	Y	Z	H
38AUD16 (MCHX)	288	633	100	220	61	134	61.5	135	65.5	144	38 [965.2]	19 [482.6]	15 [381]	50-3/8 [1279.2]
38AUD16 (RTPF)	332	731	107	237	78	172	61	135	84	186	38 [965.2]	19 [482.6]	17 [431.8]	50-3/8 [1279.2]

CG CENTER OF GRAVITY

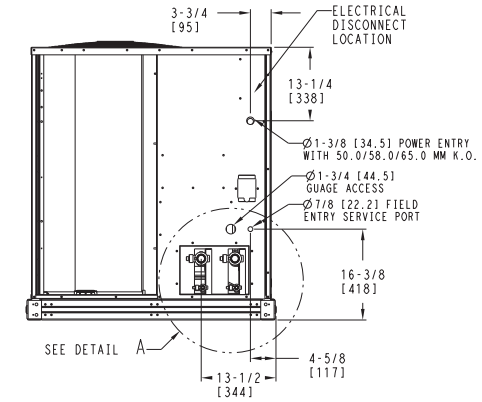
DIRECTION OF AIR FLOW

DIMENSIONS IN [ ] ARE IN MM

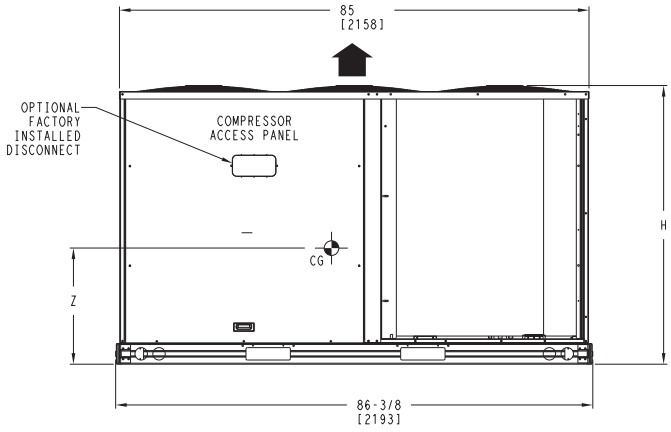
SERVICE VALVE CONNECTIONS			QTY
UNIT	SUCTION	LIQUID	
38AUD16	1-3/8 [34.9]	1/2 [12.7]	2 EA



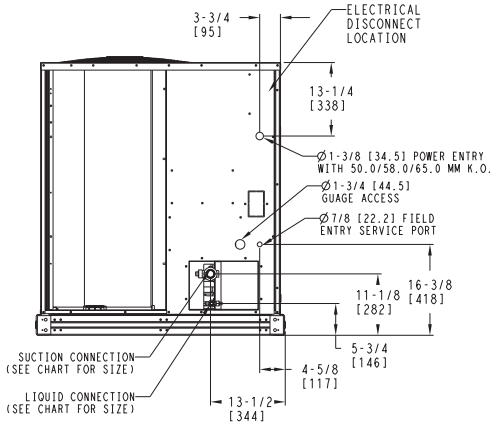
TOP VIEW



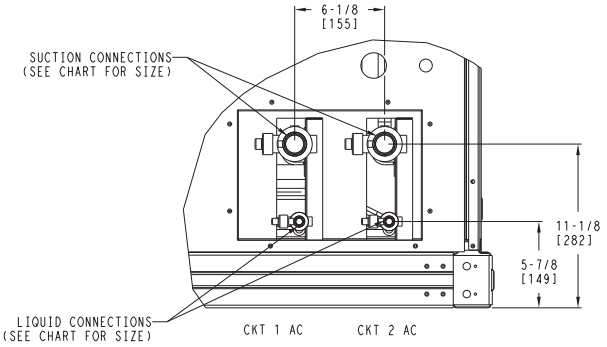
LEFT SIDE VIEW FOR 38AUD SYSTEMS



FRONT VIEW



LEFT SIDE VIEW



DETAIL A
(NOTE POSITION OF CKT 1)

NOTES:
1. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
   A. BOTTOM TO COMBUSTIBLE SURFACES: 0 INCHES.
   B. OUTDOOR COIL, FOR PROPER AIR FLOW: 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
   C. OVERHEAD: 60 INCHES, TO ASSURE PROPER OUTDOOR FAN OPERATION.
   D. BETWEEN UNITS: CONTROL BOX SIDE, 42 INCHES PER NEC.
   E. BETWEEN UNIT AND UNGROUNDED SURFACES: CONTROL BOX SIDE, 36 INCHES PER NEC.
   F. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES: CONTROL BOX SIDE, 42 INCHES PER NEC.
2. WITH EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTE 1B, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
3. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B OR C ROOF COVERING MATERIAL.

C10591

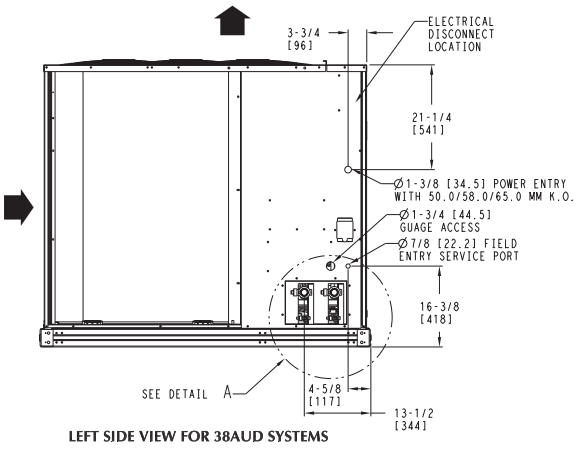
DIMENSIONS (cont.)

UNIT	STD. UNIT WT.		CORNER A		CORNER B		CORNER C		CORNER D		CENTER OF GRAVITY			UNIT HEIGHT
	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	X	Y	Z	H
38AUD25 (RTPF)	444	978	163	360	85	188	67	147	128	283	38 [965.2]	23 [584.2]	17 [431.8]	50-3/8 [1279.2]

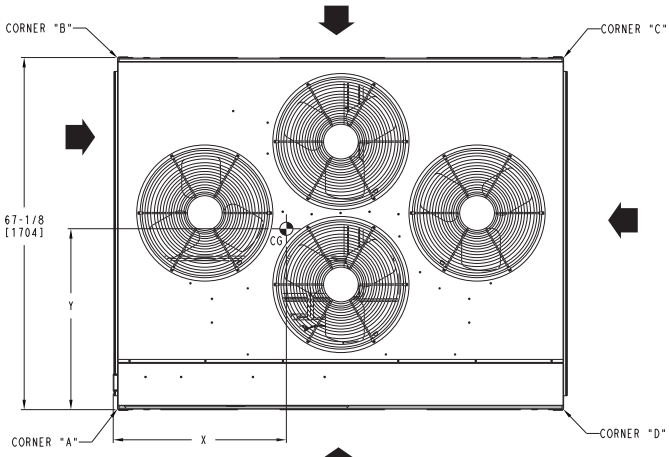
CG CENTER OF GRAVITY

DIRECTION OF AIR FLOW

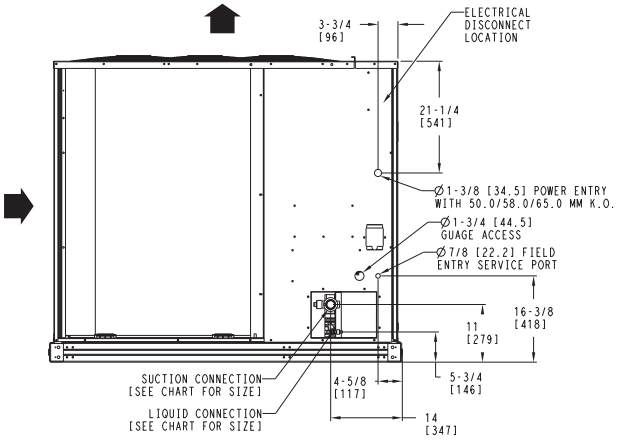
DIMENSIONS IN [ ] ARE IN MM



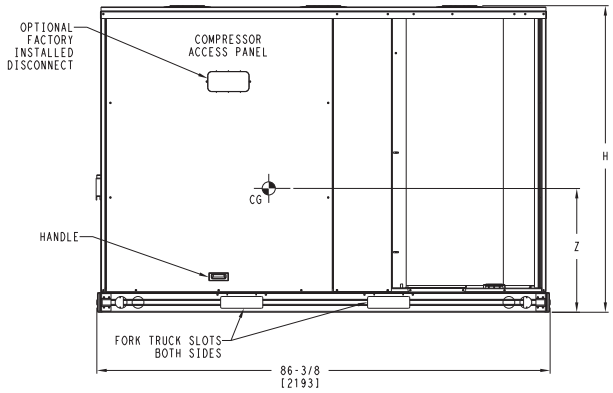
LEFT SIDE VIEW FOR 38AUD SYSTEMS



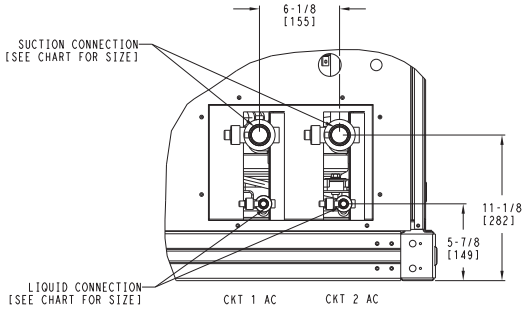
TOP VIEW



LEFT SIDE VIEW



FRONT VIEW



DETAIL A
(NOTE POSITION OF CKT 1)

NOTES:
1. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
   A. BOTTOM TO COMBUSTIBLE SURFACES: 0 INCHES.
   B. OUTDOOR COIL, FOR PROPER AIR FLOW: 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
   C. OVERHEAD: 60 INCHES, TO ASSURE PROPER OUTDOOR FAN OPERATION.
   D. BETWEEN UNITS: CONTROL BOX SIDE, 42 INCHES PER NEC.
   E. BETWEEN UNIT AND UNGROUNDED SURFACES: CONTROL BOX SIDE, 36 INCHES PER NEC.
   F. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES: CONTROL BOX SIDE, 42 INCHES PER NEC.
2. WITH EXCEPTION OF THE CLEARANCE FOR THE OUTDOOR COIL AS STATED IN NOTE 1B, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
3. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B OR C ROOF COVERING MATERIAL.

SERVICE VALVE CONNECTIONS			QTY
UNIT	SUCTION	LIQUID	
38AUD25	1-3/8 [34.9]	1/2 [12.7]	2 EA

C10592

OPTIONS AND ACCESSORIES

38AUZ/D OPTIONS AND ACCESSORIES

ITEM	OPTION*	ACCESSORY†
Disconnect Switch (non-fused)	X	
Special–coated Coil Protection	X	
Low Ambient Temperature MotorMaster I® Control	X	X
Wired Condenser Coil Grille (Novation 07–14 models only)		X
Louvered Hail Guard	X	X
Programmable Thermostats		X

* Factory-installed option.

† Field-installed accessory.

38AUZ/38AUD factory-installed options

E-coated aluminum-fin coils have a flexible and durable epoxy coating uniformly applied to all coil surfaces. Unlike brittle phenolic dip and bake coatings, E-coating provides superior protection with unmatched flexibility, edge coverage, metal adhesion, thermal performance, and most importantly, corrosion resistance.

E-coated coils provide this protection since all coil surfaces are completely encapsulated from environmental contamination. This coating is especially suitable in industrial environments.

Pre-coated coils (RTPF coils only) provide protection in mild coastal environments.

–29°C (–20°F) low-ambient temperature kit option (MotorMaster I®) controls outdoor-fan motor operation to maintain the correct head pressure at low outdoor ambient temperatures.

Louvered hail guard package protects coils against damage from flying debris and hail.

Non-fused disconnect switch is used to remove power locally at the condensing unit. This switch also includes a power lockout capability to protect the service person. This lockout switch saves the service person time and effort because there is no need to access a distant disconnect switch while servicing the unit.

NOTE: Non-fused disconnect switch cannot be used when unit MOCP electrical rating exceeds 80 amps.

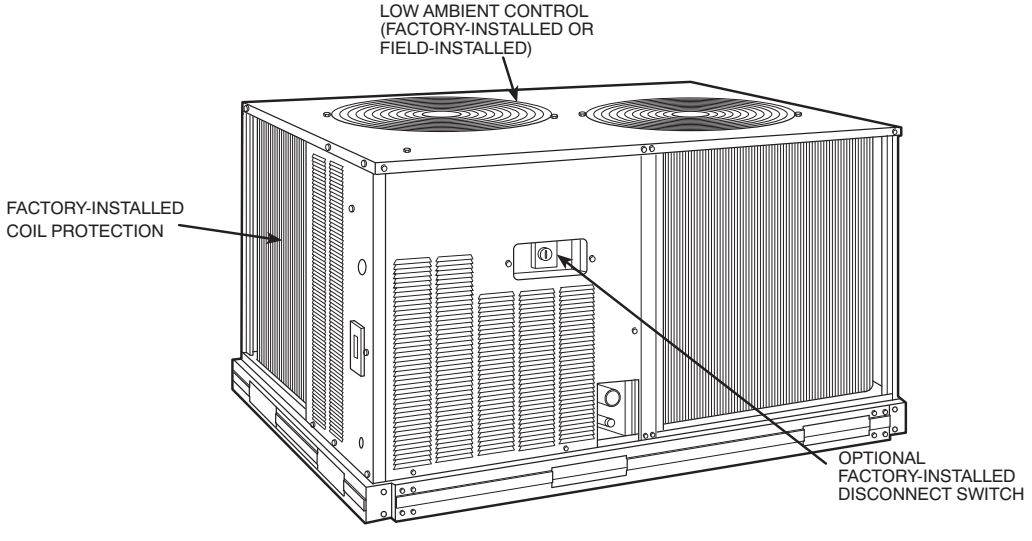
38AUZ/D field-installed accessories

–29°C (–20°F) low-ambient temperature kit accessory (MotorMaster I®) controls outdoor-fan motor operation to maintain the correct head pressure at low outdoor ambient temperatures.

Louvered hail guard package protects coils against damage from flying debris and hail.

Condenser coil grille package protects condensing unit coil from impact by large objects and vandalism.

Carrier's line of thermostats provide both programmable and non-programmable capability with the new **Debonair®** line of commercial programmable thermostats. The **Commercial Electronic** thermostats provide 7-day programmable capability for economical applications.



C10609

OPTIONS AND ACCESSORIES (cont.)

40RU OPTIONS AND ACCESSORIES

ITEM	OPTION*	ACCESSORY†
Alternate Fan Motors	X	
Alternate Drives	X	
CO_2 Sensors		X
Condensate Drain Trap		X
Discharge Plenum		X
Economizer		X
Electric Heat		X
Hot Water Heating Coils		X
Overhead Suspension Package		X
Prepainted Units	X	
Return Air Grille		X
Steam Heating Coil		X
Subbase		X

* Factory-installed option.

† Field-installed accessory.

40RU factory-installed options

Alternate fan motors and drives are available to provide the widest possible range of performance.

Units constructed of prepainted steel are available from the factory for applications that require painted units. Unit color is American Sterling Gray.

40RU field-installed accessories

Two-row hot water coils have $^5/_8$-in. diameter copper tubes mechanically bonded to aluminum plate fins. Coils have non-ferrous headers.

One-row steam coil has 1-in. OD copper tube and aluminum fins. The Inner Distributing Tube (IDT) design provides uniform temperatures across the coil face. The IDT steam coils are especially suited to applications where sub-freezing air enters the unit.

Electric resistance heat coils have an open-wire design and are mounted in a rigid frame. Safety cutouts for high temperature conditions are standard.

Economizer (enthalpy controlled) provides ventilation air and provides "free" cooling if the outside ambient temperature and humidity are suitable. The economizer can also be used in conjunction with Carrier Comfort System thermostats and CO_2 sensors to help meet indoor air quality requirements. The economizer can be used in both vertical and horizontal positions.

Discharge plenum directs the air discharge into the occupied space; integral horizontal and vertical louvers enable redirection of airflow. This accessory is available unpainted or painted.

Return-air grille provides a protective barrier over the return-air opening and gives a finished appearance to units installed in the occupied space. This accessory is available unpainted or painted.

Subbase provides a stable, raised platform and room for condensate drain connection for floor-mounted units. This accessory is available unpainted or painted.

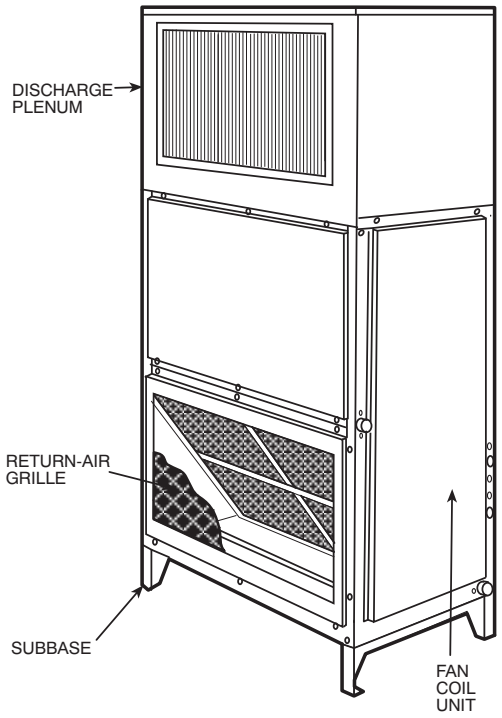
Overhead suspension package includes necessary brackets to support units in horizontal installations.

CO_2 sensors can be used in conjunction with the economizer accessory to help meet indoor air quality requirements. The sensor signals the economizer to open when the CO_2 level in the space exceeds the setpoint. A Carrier Comfort System programmable thermostat can also be used to override the sensor if the outside-air temperature is too high or too low.

Condensate drain trap includes an overflow shutoff switch that can be wired to turn off the unit if the trap becomes plugged. The kit also includes a wire harness that can be connected to an alarm if desired. The transparent trap is designed for easy service and maintenance.

OPTIONS AND ACCESSORIES (cont.)

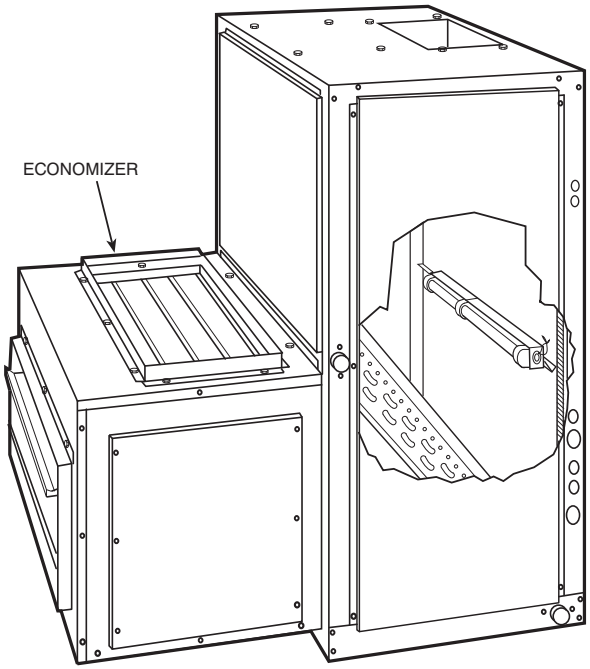
40RU WITH DISCHARGE PLENUM RETURN-AIR GRILLE AND SUBBASE



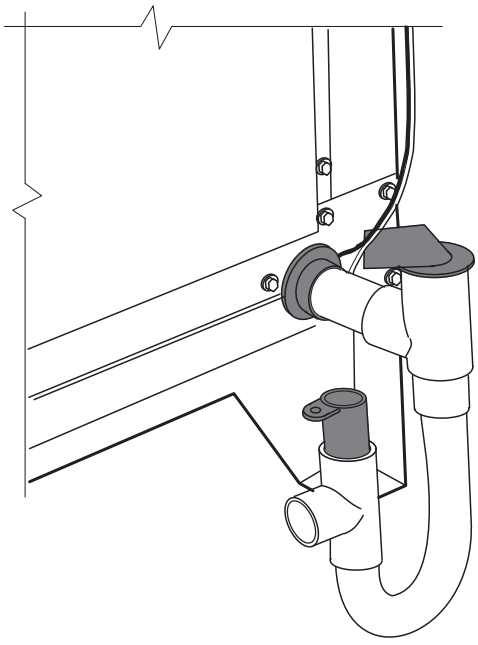
40RU WITH HOT WATER OR STEAM COIL



40RU WITH ECONOMIZER

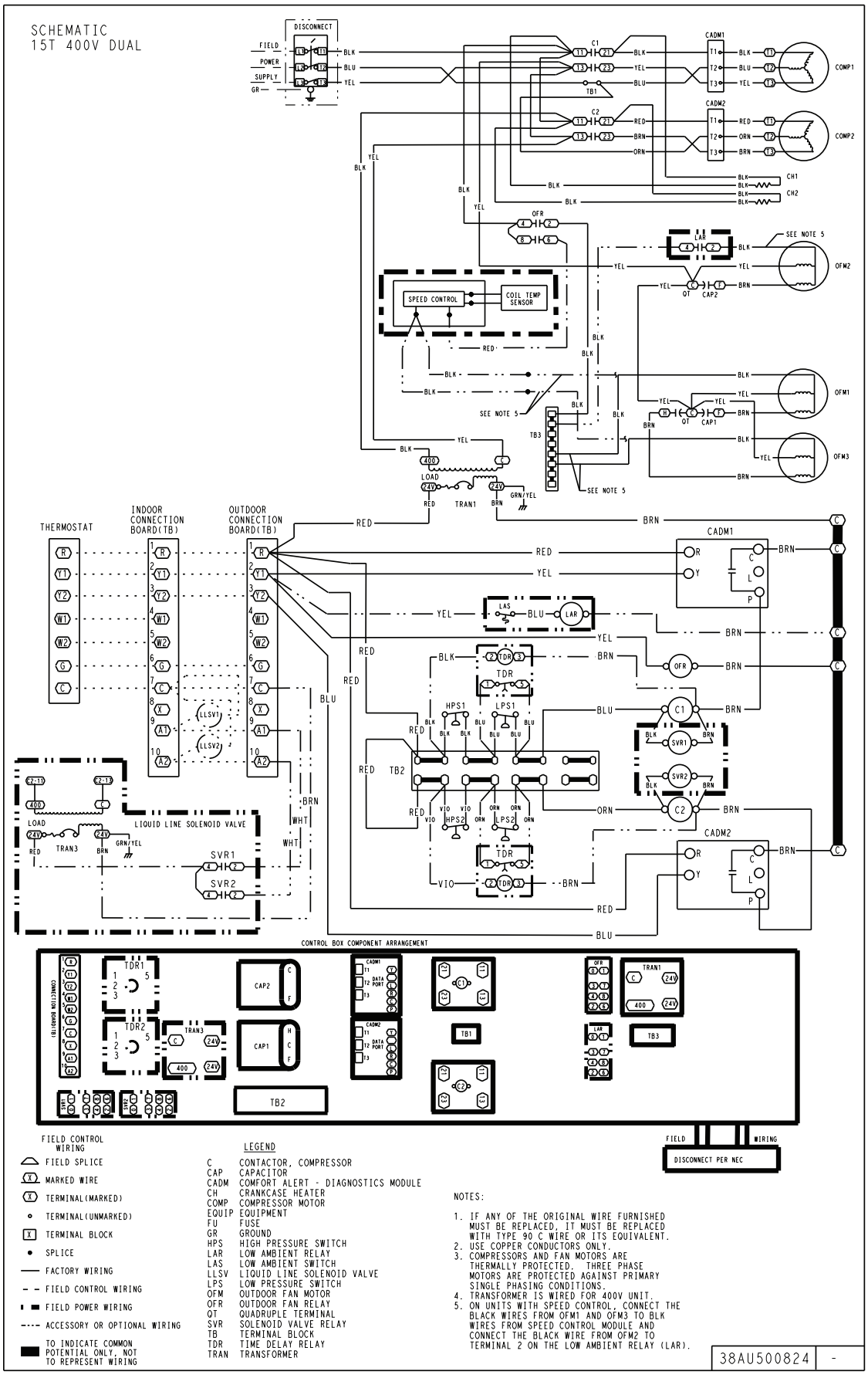


40RU WITH CONDENSATE TRAP



C10610

TYPICAL WIRING SCHEMATIC



C10593

Typical 38AUD16 Dual Circuit

PERFORMANCE DATA

38AUZ07 50 Hz **CONDENSER ONLY RATINGS** **SI**

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	11.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.4	38.1	44.2	49.5	54.5	59.6
-4	TC	13.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.9	38.7	44.2	49.5	54.3	60.0
-1	TC	14.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.5	39.3	44.8	50.0	54.9	61.9
2	TC	16.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.1	39.8	45.4	50.9	56.1	61.6
4	TC	17.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.7	40.4	45.9	51.5	56.9	62.2
7	TC	18.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.2	41.0	46.5	52.0	57.4	62.5
10	TC	20.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.8	41.6	47.1	52.5	57.9	63.3

38AUZ07 50 Hz **CONDENSER ONLY RATINGS** **ENGLISH**

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	40.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	95.7	100.6	111.5	121.1	130.1	139.3
25	TC	45.2	43.8	41.0	38.0	34.5	31.3
	kW	3.6	3.8	4.4	5.0	5.7	6.4
	SDT	96.7	101.6	111.6	121.1	129.8	140.1
30	TC	49.8	48.4	45.5	42.2	38.6	36.0
	kW	3.5	3.8	4.4	5.0	5.7	6.6
	SDT	97.8	102.7	112.6	122.1	130.8	143.5
35	TC	54.6	53.2	50.2	47.0	43.2	40.0
	kW	3.5	3.7	4.3	5.0	5.8	6.6
	SDT	98.8	103.7	113.7	123.6	132.9	142.9
40	TC	59.5	58.0	54.9	51.6	48.1	44.3
	kW	3.4	3.7	4.3	5.0	5.7	6.6
	SDT	99.8	104.7	114.7	124.6	134.5	143.9
45	TC	64.4	62.9	59.7	56.4	52.8	48.6
	kW	3.3	3.6	4.2	4.9	5.7	6.5
	SDT	100.8	105.8	115.7	125.6	135.4	144.4
50	TC	69.3	67.8	64.6	61.2	57.6	53.6
	kW	3.2	3.5	4.2	4.9	5.6	6.5
	SDT	101.9	106.8	116.7	126.5	136.3	145.9

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

38AUZ08 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	15.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	34.5	37.2	42.7	48.2	53.5	59.1
-4	TC	16.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.0	37.7	43.2	48.7	53.5	58.9
-1	TC	18.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.6	38.3	43.7	49.2	54.6	59.5
2	TC	20.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.1	38.8	44.3	49.7	55.1	60.5
4	TC	22.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.7	39.4	44.8	50.2	55.6	60.9
7	TC	23.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.3	40.0	45.4	50.7	56.1	61.4
10	TC	25.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.0	40.6	46.0	51.3	56.6	61.8

38AUZ08 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	52.2	50.6	47.2	43.7	39.9	36.3
	kW	4.1	4.4	5.2	6.0	6.8	7.8
	SDT	94.1	99.0	108.9	118.8	128.2	138.4
25	TC	57.7	55.9	52.3	48.6	44.0	40.1
	kW	4.1	4.5	5.2	6.0	6.9	7.9
	SDT	95.0	99.9	109.8	119.7	128.3	138.1
30	TC	63.4	61.5	57.7	53.8	49.6	44.7
	kW	4.2	4.5	5.3	6.1	7.0	8.0
	SDT	96.0	100.9	110.7	120.6	130.3	139.1
35	TC	69.3	67.3	63.3	59.2	54.9	50.4
	kW	4.2	4.6	5.3	6.2	7.1	8.0
	SDT	97.0	101.9	111.7	121.5	131.3	140.9
40	TC	75.2	73.3	69.2	64.9	60.4	55.6
	kW	4.3	4.6	5.4	6.2	7.1	8.1
	SDT	98.1	102.9	112.7	122.4	132.1	141.7
45	TC	81.3	79.3	75.2	70.7	66.0	61.0
	kW	4.3	4.6	5.4	6.2	7.2	8.2
	SDT	99.2	104.0	113.7	123.3	132.9	142.5
50	TC	87.4	85.4	81.1	76.6	71.7	66.5
	kW	4.3	4.7	5.5	6.3	7.2	8.2
	SDT	100.3	105.1	114.7	124.3	133.8	143.3

LEGEND:

kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD12 Total Unit 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	19.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.5	38.0	43.1	48.2	53.2	58.2
-4	TC	21.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.2	38.7	43.8	48.8	53.8	58.7
-1	TC	23.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.9	39.5	44.5	49.5	54.4	59.2
2	TC	26.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.7	40.2	45.2	50.1	55.0	59.8
4	TC	28.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.5	40.9	45.9	50.8	55.6	60.3
7	TC	30.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.2	41.7	46.6	51.5	56.2	60.9
10	TC	33.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.1	42.5	47.3	52.2	56.9	61.4

38AUD12 Total Unit 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	66.5	64.3	59.8	55.1	50.0	44.7
	kW	5.2	5.6	6.4	7.3	8.2	9.1
	SDT	95.9	100.5	109.6	118.8	127.8	136.7
25	TC	73.4	71.0	66.1	61.0	55.7	50.0
	kW	5.2	5.6	6.5	7.4	8.3	9.2
	SDT	97.2	101.7	110.8	119.9	128.9	137.7
30	TC	80.8	78.2	72.9	67.3	61.6	55.5
	kW	5.3	5.7	6.6	7.5	8.4	9.3
	SDT	98.5	103.0	112.1	121.1	129.9	138.6
35	TC	88.6	85.8	80.0	74.0	67.9	61.4
	kW	5.4	5.8	6.6	7.5	8.5	9.4
	SDT	99.8	104.3	113.3	122.3	131.1	139.6
40	TC	96.8	93.8	87.5	81.2	74.5	67.4
	kW	5.5	5.9	6.7	7.6	8.6	9.5
	SDT	101.2	105.7	114.6	123.4	132.2	140.6
45	TC	105.6	102.2	95.4	88.5	81.2	73.6
	kW	5.6	5.9	6.8	7.7	8.7	9.6
	SDT	102.6	107.0	115.9	124.6	133.2	141.6
50	TC	114.7	111.0	103.6	96.0	88.0	79.6
	kW	5.6	6.0	6.9	7.8	8.7	9.7
	SDT	104.1	108.4	117.2	125.9	134.3	142.6

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD12 Circuit A 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (° C)					
		27	29	35	41	46	52
-7	TC	9.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.4	37.9	43.0	48.1	53.1	58.0
-4	TC	10.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.1	38.6	43.7	48.7	53.7	58.6
-1	TC	11.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.8	39.3	44.3	49.3	54.3	59.1
2	TC	12.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.5	40.0	45.0	50.0	54.9	59.6
4	TC	14.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.3	40.8	45.7	50.6	55.5	60.1
7	TC	15.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.1	41.5	46.4	51.3	56.0	60.7
10	TC	16.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.9	42.3	47.1	52.0	56.6	61.2

38AUD12 Circuit A 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	32.9	31.8	29.6	27.2	24.7	22.1
	kW	2.6	2.8	3.2	3.6	4.1	4.5
	SDT	95.7	100.3	109.4	118.6	127.6	136.4
25	TC	36.3	35.1	32.6	30.1	27.4	24.6
	kW	2.6	2.8	3.2	3.7	4.1	4.6
	SDT	96.9	101.5	110.6	119.7	128.6	137.4
30	TC	39.9	38.6	35.9	33.2	30.3	27.3
	kW	2.6	2.8	3.3	3.7	4.2	4.7
	SDT	98.3	102.8	111.8	120.8	129.7	138.3
35	TC	43.7	42.2	39.4	36.4	33.3	30.1
	kW	2.7	2.9	3.3	3.8	4.2	4.7
	SDT	99.6	104.1	113.0	122.0	130.7	139.3
40	TC	47.6	46.1	43.0	39.8	36.5	32.9
	kW	2.7	2.9	3.3	3.8	4.3	4.8
	SDT	101.0	105.4	114.3	123.1	131.8	140.3
45	TC	51.8	50.1	46.8	43.3	39.6	35.9
	kW	2.8	3.0	3.4	3.8	4.3	4.8
	SDT	102.3	106.7	115.5	124.3	132.9	141.3
50	TC	56.2	54.3	50.6	46.8	42.8	38.6
	kW	2.8	3.0	3.4	3.9	4.3	4.8
	SDT	103.8	108.1	116.8	125.5	133.9	142.1

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD12 Circuit B 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	9.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.6	38.2	43.3	48.3	53.3	58.3
-4	TC	10.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.3	38.9	43.9	49.0	53.9	58.8
-1	TC	12.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.1	39.6	44.6	49.6	54.6	59.4
2	TC	13.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.8	40.3	45.3	50.3	55.2	60.0
4	TC	14.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.6	41.1	46.0	51.0	55.8	60.5
7	TC	15.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.4	41.8	46.8	51.6	56.4	61.1
10	TC	17.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.2	42.7	47.5	52.3	57.1	61.7

38AUD12 Circuit B 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	33.6	32.5	30.2	27.8	25.3	22.7
	kW	2.6	2.8	3.2	3.7	4.1	4.5
	SDT	96.1	100.7	109.9	119.0	128.0	136.9
25	TC	37.1	35.9	33.5	30.9	28.2	25.4
	kW	2.6	2.8	3.2	3.7	4.2	4.6
	SDT	97.4	101.9	111.1	120.2	129.1	137.9
30	TC	40.9	39.6	37.0	34.2	31.3	28.2
	kW	2.7	2.9	3.3	3.7	4.2	4.7
	SDT	98.7	103.3	112.3	121.3	130.2	138.9
35	TC	44.9	43.5	40.6	37.6	34.6	31.3
	kW	2.7	2.9	3.3	3.8	4.3	4.7
	SDT	100.1	104.6	113.6	122.6	131.4	139.9
40	TC	49.2	47.7	44.5	41.4	38.0	34.5
	kW	2.7	2.9	3.4	3.8	4.3	4.8
	SDT	101.5	106.0	114.9	123.7	132.5	141.0
45	TC	53.7	52.1	48.7	45.2	41.6	37.8
	kW	2.8	3.0	3.4	3.9	4.3	4.8
	SDT	102.9	107.3	116.2	125.0	133.6	142.0
50	TC	58.5	56.7	53.0	49.2	45.2	41.1
	kW	2.8	3.0	3.5	3.9	4.4	4.9
	SDT	104.4	108.8	117.6	126.2	134.7	143.0

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD14 Total Unit 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	24.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.5	39.0	44.0	48.9	53.7	58.4
-4	TC	27.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.4	39.8	44.8	49.6	54.4	59.1
-1	TC	29.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.2	40.7	45.6	50.4	55.1	59.7
2	TC	32.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.1	41.5	46.4	51.2	55.9	60.4
4	TC	35.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.0	42.4	47.2	52.0	56.6	61.1
7	TC	38.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.9	43.3	48.1	52.8	57.4	61.7
10	TC	40.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	41.9	44.3	48.9	53.6	58.1	62.4

38AUD14 Total Unit 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	83.7	80.8	74.6	68.0	61.0	53.9
	kW	7.0	7.5	8.4	9.3	10.2	11.0
	SDT	97.8	102.2	111.2	120.0	128.7	137.2
25	TC	92.1	89.0	82.3	75.4	67.9	60.3
	kW	7.1	7.6	8.5	9.5	10.4	11.3
	SDT	99.3	103.7	112.6	121.4	129.9	138.3
30	TC	101.0	97.5	90.5	83.0	75.3	66.8
	kW	7.3	7.7	8.7	9.7	10.6	11.6
	SDT	100.8	105.2	114.0	122.7	131.3	139.5
35	TC	110.2	106.5	98.9	91.0	82.4	73.5
	kW	7.4	7.9	8.8	9.8	10.8	11.8
	SDT	102.4	106.8	115.5	124.2	132.6	140.8
40	TC	119.8	115.7	107.6	98.9	89.8	80.1
	kW	7.6	8.0	9.0	10.0	11.0	12.1
	SDT	104.0	108.3	117.0	125.6	133.9	141.9
45	TC	129.6	125.1	116.1	106.8	97.1	86.6
	kW	7.7	8.2	9.2	10.2	11.2	12.3
	SDT	105.7	110.0	118.5	127.0	135.2	143.1
50	TC	139.3	134.6	124.7	114.8	104.1	93.1
	kW	7.9	8.4	9.3	10.4	11.4	12.5
	SDT	107.4	111.7	120.1	128.5	136.5	144.4

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD14 Circuit A 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	12.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.3	38.8	43.7	48.7	53.5	58.2
-4	TC	13.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.1	39.6	44.5	49.4	54.2	58.9
-1	TC	14.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.9	40.4	45.3	50.1	54.9	59.5
2	TC	16.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.8	41.2	46.1	50.9	55.6	60.2
4	TC	17.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.7	42.1	46.9	51.7	56.4	60.9
7	TC	19.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.6	43.0	47.8	52.5	57.1	61.5
10	TC	20.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	41.6	43.9	48.6	53.3	57.8	62.2

38AUD14 Circuit A 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	42.0	40.5	37.4	34.2	30.7	27.1
	kW	3.5	3.8	4.2	4.7	5.1	5.5
	SDT	97.3	101.8	110.7	119.6	128.3	136.8
25	TC	46.2	44.7	41.4	37.9	34.2	30.3
	kW	3.6	3.8	4.3	4.8	5.2	5.7
	SDT	98.8	103.2	112.1	120.9	129.5	138.0
30	TC	50.7	49.0	45.5	41.7	37.9	33.7
	kW	3.7	3.9	4.4	4.9	5.3	5.8
	SDT	100.3	104.7	113.6	122.3	130.8	139.1
35	TC	55.4	53.5	49.7	45.8	41.5	37.0
	kW	3.7	4.0	4.4	4.9	5.4	5.9
	SDT	101.8	106.2	115.0	123.7	132.1	140.4
40	TC	60.2	58.2	54.1	49.8	45.2	40.4
	kW	3.8	4.0	4.5	5.0	5.6	6.1
	SDT	103.5	107.8	116.5	125.1	133.4	141.5
45	TC	65.2	62.9	58.4	53.8	48.9	43.7
	kW	3.9	4.1	4.6	5.1	5.6	6.2
	SDT	105.1	109.4	118.0	126.5	134.8	142.7
50	TC	70.2	67.8	62.8	57.9	52.5	47.0
	kW	4.0	4.2	4.7	5.2	5.7	6.3
	SDT	106.8	111.1	119.5	127.9	136.0	143.9

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD14 Circuit B 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	12.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.8	39.3	44.2	49.1	53.9	58.6
-4	TC	13.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.6	40.1	45.0	49.9	54.6	59.3
-1	TC	14.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.5	41.0	45.9	50.7	55.4	60.0
2	TC	16.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.4	41.8	46.7	51.5	56.1	60.7
4	TC	17.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.3	42.7	47.5	52.3	56.9	61.3
7	TC	18.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	41.3	43.6	48.4	53.1	57.6	62.0
10	TC	20.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	42.2	44.6	49.2	53.9	58.4	62.7

38AUD14 Circuit B 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	41.7	40.2	37.1	33.8	30.3	26.8
	kW	3.5	3.7	4.2	4.6	5.1	5.5
	SDT	98.2	102.7	111.6	120.4	129.1	137.6
25	TC	45.9	44.3	41.0	37.5	33.8	29.9
	kW	3.5	3.8	4.2	4.7	5.2	5.6
	SDT	99.7	104.2	113.1	121.8	130.3	138.7
30	TC	50.2	48.5	45.0	41.3	37.4	33.2
	kW	3.6	3.8	4.3	4.8	5.3	5.8
	SDT	101.3	105.7	114.5	123.2	131.7	139.9
35	TC	54.8	53.0	49.2	45.2	40.9	36.5
	kW	3.7	3.9	4.4	4.9	5.4	5.9
	SDT	102.9	107.3	116.0	124.6	133.0	141.2
40	TC	59.6	57.5	53.5	49.1	44.6	39.7
	kW	3.8	4.0	4.5	5.0	5.5	6.0
	SDT	104.6	108.9	117.6	126.1	134.4	142.4
45	TC	64.4	62.1	57.6	53.0	48.1	42.9
	kW	3.8	4.1	4.5	5.1	5.6	6.1
	SDT	106.3	110.5	119.1	127.5	135.7	143.6
50	TC	69.2	66.8	61.9	56.9	51.6	46.2
	kW	3.9	4.1	4.6	5.1	5.7	6.2
	SDT	108.0	112.3	120.6	129.0	137.0	144.8

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD16 Total Unit 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	31.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.4	38.0	43.2	48.3	53.4	58.4
-4	TC	34.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.2	38.7	43.8	48.9	53.9	58.9
-1	TC	38.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.9	39.5	44.5	49.5	54.5	59.4
2	TC	41.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.7	40.2	45.2	50.2	55.1	59.9
4	TC	45.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.5	41.0	45.9	50.9	55.7	60.5
7	TC	49.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.3	41.8	46.7	51.6	56.4	61.0
10	TC	53.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.2	42.6	47.5	52.3	57.0	61.6

38AUD16 Total Unit 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	107.8	104.6	97.9	90.9	83.7	76.1
	kW	8.4	8.9	10.0	11.2	12.5	13.9
	SDT	95.8	100.4	109.7	118.9	128.1	137.1
25	TC	118.8	115.3	107.9	100.4	92.4	84.1
	kW	8.6	9.1	10.2	11.4	12.7	14.1
	SDT	97.1	101.7	110.9	120.0	129.1	138.0
30	TC	130.5	126.6	118.6	110.3	101.6	92.7
	kW	8.7	9.2	10.3	11.6	12.9	14.3
	SDT	98.4	103.0	112.1	121.2	130.1	138.9
35	TC	142.8	138.5	129.7	120.8	111.5	101.6
	kW	8.9	9.4	10.5	11.7	13.0	14.4
	SDT	99.8	104.3	113.4	122.4	131.2	139.9
40	TC	155.8	151.0	141.6	132.0	121.7	110.7
	kW	9.1	9.6	10.7	11.9	13.2	14.6
	SDT	101.3	105.7	114.7	123.6	132.3	140.8
45	TC	169.5	164.3	154.0	143.4	132.0	120.1
	kW	9.3	9.8	10.9	12.1	13.4	14.8
	SDT	102.7	107.2	116.0	124.8	133.5	141.9
50	TC	183.9	178.2	166.8	154.9	142.6	129.5
	kW	9.5	10.0	11.1	12.3	13.6	15.0
	SDT	104.3	108.7	117.4	126.1	134.6	142.9

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD16 Circuit A 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	15.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.9	38.5	43.6	48.7	53.8	58.8
-4	TC	17.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.6	39.2	44.3	49.4	54.3	59.3
-1	TC	19.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.4	39.9	45.0	50.0	54.9	59.8
2	TC	20.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.2	40.7	45.7	50.7	55.6	60.3
4	TC	22.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.0	41.5	46.4	51.4	56.2	60.9
7	TC	24.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.9	42.3	47.2	52.1	56.8	61.5
10	TC	26.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	40.7	43.1	48.0	52.8	57.5	62.1

38AUD16 Circuit A 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	53.8	52.2	48.8	45.3	41.7	37.9
	kW	4.2	4.5	5.1	5.7	6.3	7.0
	SDT	96.6	101.2	110.5	119.7	128.8	137.8
25	TC	59.3	57.5	53.8	50.0	46.0	41.9
	kW	4.3	4.6	5.1	5.7	6.4	7.1
	SDT	97.9	102.5	111.7	120.8	129.8	138.7
30	TC	65.1	63.1	59.0	54.9	50.6	46.1
	kW	4.4	4.7	5.2	5.8	6.5	7.2
	SDT	99.3	103.9	112.9	122.0	130.9	139.6
35	TC	71.1	68.9	64.5	60.1	55.4	50.5
	kW	4.5	4.8	5.3	5.9	6.6	7.3
	SDT	100.7	105.2	114.2	123.2	132.0	140.6
40	TC	77.5	75.1	70.4	65.6	60.5	55.0
	kW	4.6	4.9	5.4	6.0	6.7	7.4
	SDT	102.2	106.7	115.6	124.5	133.2	141.6
45	TC	84.3	81.7	76.6	71.3	65.6	59.6
	kW	4.7	5.0	5.5	6.1	6.8	7.5
	SDT	103.7	108.1	117.0	125.7	134.3	142.7
50	TC	91.4	88.6	82.9	76.9	70.8	64.3
	kW	4.8	5.1	5.6	6.2	6.9	7.6
	SDT	105.3	109.7	118.4	127.0	135.5	143.7

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD16 Circuit B 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	15.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.0	37.6	42.7	47.9	53.0	58.0
-4	TC	17.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.7	38.3	43.4	48.5	53.5	58.5
-1	TC	19.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.4	39.0	44.0	49.1	54.1	59.0
2	TC	21.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.2	39.7	44.7	49.7	54.7	59.5
4	TC	22.9	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.0	40.4	45.4	50.4	55.3	60.0
7	TC	25.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.8	41.2	46.2	51.1	55.9	60.6
10	TC	27.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.6	42.0	46.9	51.8	56.5	61.2

38AUD16 Circuit B 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	54.0	52.4	49.1	45.6	42.0	38.2
	kW	4.2	4.4	5.0	5.6	6.2	6.9
	SDT	95.0	99.7	108.9	118.2	127.3	136.3
25	TC	59.6	57.8	54.2	50.4	46.4	42.3
	kW	4.2	4.5	5.0	5.6	6.3	7.0
	SDT	96.2	100.9	110.1	119.2	128.3	137.2
30	TC	65.5	63.5	59.5	55.4	51.1	46.6
	kW	4.3	4.6	5.1	5.7	6.4	7.1
	SDT	97.6	102.1	111.3	120.4	129.3	138.1
35	TC	71.7	69.5	65.2	60.7	56.0	51.1
	kW	4.4	4.7	5.2	5.8	6.5	7.2
	SDT	98.9	103.4	112.5	121.5	130.4	139.1
40	TC	78.2	75.9	71.2	66.3	61.2	55.7
	kW	4.5	4.8	5.3	5.9	6.5	7.2
	SDT	100.3	104.8	113.8	122.7	131.5	140.0
45	TC	85.2	82.6	77.4	72.1	66.4	60.4
	kW	4.6	4.9	5.4	6.0	6.6	7.3
	SDT	101.8	106.2	115.1	123.9	132.6	141.1
50	TC	92.4	89.6	83.9	77.9	71.8	65.2
	kW	4.7	5.0	5.5	6.1	6.7	7.4
	SDT	103.3	107.6	116.5	125.2	133.8	142.1

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD25 Total Unit **CONDENSER ONLY RATINGS** **SI**

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	38.7	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	33.8	36.4	41.6	46.7	51.9	57.0
-4	TC	42.8	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	34.5	37.1	42.2	47.4	52.5	57.5
-1	TC	47.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.2	37.8	42.9	48.0	53.1	58.1
2	TC	52.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.0	38.6	43.6	48.7	53.7	58.6
4	TC	57.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.9	39.4	44.4	49.4	54.4	59.2
7	TC	62.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.8	40.3	45.2	50.2	55.1	59.8
10	TC	68.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.8	41.2	46.1	51.0	55.8	60.5

38AUD25 Total Unit **CONDENSER ONLY RATINGS** **ENGLISH**

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	131.9	128.0	119.8	111.1	101.6	91.4
	kW	10.0	10.6	12.0	13.5	15.2	17.2
	SDT	92.8	97.5	106.9	116.1	125.4	134.6
25	TC	145.9	141.7	132.9	123.5	113.3	102.3
	kW	10.2	10.8	12.1	13.6	15.4	17.3
	SDT	94.1	98.7	108.0	117.3	126.4	135.5
30	TC	161.1	156.5	146.9	136.7	125.6	113.7
	kW	10.4	11.0	12.3	13.8	15.5	17.5
	SDT	95.4	100.0	109.2	118.4	127.5	136.5
35	TC	177.3	172.3	161.9	150.7	138.7	125.7
	kW	10.6	11.2	12.5	14.0	15.7	17.6
	SDT	96.9	101.4	110.5	119.6	128.7	137.6
40	TC	194.8	189.3	177.9	165.7	152.5	138.4
	kW	10.8	11.4	12.7	14.2	15.9	17.8
	SDT	98.4	102.9	111.9	120.9	129.8	138.6
45	TC	213.5	207.4	194.9	181.5	167.1	151.7
	kW	11.1	11.7	13.0	14.5	16.1	18.0
	SDT	100.0	104.5	113.4	122.3	131.1	139.7
50	TC	233.4	226.7	213.0	198.2	182.5	165.6
	kW	11.4	12.0	13.3	14.7	16.4	18.2
	SDT	101.8	106.2	115.0	123.7	132.4	140.9

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD25 Circuit A 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	19.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	33.6	36.2	41.4	46.6	51.7	56.8
-4	TC	21.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	34.3	36.8	42.0	47.2	52.3	57.3
-1	TC	23.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.0	37.5	42.7	47.8	52.9	57.9
2	TC	26.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.8	38.3	43.4	48.5	53.5	58.4
4	TC	28.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.6	39.1	44.1	49.2	54.1	59.0
7	TC	31.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.5	40.0	44.9	49.9	54.8	59.6
10	TC	34.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.4	40.9	45.8	50.7	55.5	60.3

38AUD25 Circuit A 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	66.0	64.0	60.0	55.6	50.9	45.8
	kW	5.0	5.3	5.9	6.7	7.6	8.5
	SDT	92.4	97.1	106.5	115.8	125.1	134.3
25	TC	73.0	70.9	66.5	61.8	56.7	51.2
	kW	5.1	5.4	6.0	6.8	7.6	8.6
	SDT	93.7	98.3	107.6	116.9	126.1	135.2
30	TC	80.6	78.3	73.5	68.4	62.9	57.0
	kW	5.2	5.5	6.1	6.9	7.7	8.7
	SDT	95.0	99.6	108.8	118.0	127.1	136.2
35	TC	88.8	86.2	81.1	75.5	69.5	63.0
	kW	5.3	5.6	6.2	7.0	7.8	8.8
	SDT	96.4	100.9	110.1	119.2	128.3	137.2
40	TC	97.5	94.8	89.1	83.0	76.4	69.4
	kW	5.4	5.7	6.3	7.1	7.9	8.9
	SDT	97.9	102.4	111.4	120.5	129.4	138.2
45	TC	106.9	103.9	97.6	91.0	83.8	76.0
	kW	5.5	5.8	6.5	7.2	8.0	9.0
	SDT	99.5	104.0	112.9	121.8	130.6	139.3
50	TC	116.9	113.6	106.7	99.4	91.5	83.0
	kW	5.7	6.0	6.6	7.3	8.1	9.1
	SDT	101.2	105.6	114.4	123.2	131.9	140.5

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUD25 Circuit B 50 Hz CONDENSER ONLY RATINGS SI

SST (°C)		Air Temperature entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	19.3	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	34.0	36.6	41.8	46.9	52.1	57.2
-4	TC	21.4	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	34.7	37.3	42.4	47.6	52.7	57.7
-1	TC	23.6	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	35.5	38.0	43.1	48.2	53.3	58.3
2	TC	26.0	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	36.3	38.8	43.9	48.9	53.9	58.8
4	TC	28.5	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	37.2	39.7	44.7	49.7	54.6	59.4
7	TC	31.2	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	38.1	40.6	45.5	50.4	55.3	60.1
10	TC	34.1	39.4	37.0	34.2	30.9	27.2
	kW	3.6	3.9	4.4	5.0	5.7	6.3
	SDT	39.1	41.5	46.4	51.2	56.0	60.7

38AUD25 Circuit B 50 Hz CONDENSER ONLY RATINGS ENGLISH

SST (°F)		Air Temperature entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	65.9	63.9	59.9	55.5	50.7	45.6
	kW	5.0	5.3	6.0	6.8	7.6	8.6
	SDT	93.3	97.9	107.2	116.5	125.8	134.9
25	TC	72.9	70.8	66.4	61.7	56.6	51.0
	kW	5.1	5.4	6.1	6.8	7.7	8.7
	SDT	94.5	99.2	108.4	117.6	126.8	135.9
30	TC	80.5	78.2	73.4	68.2	62.7	56.7
	kW	5.2	5.5	6.2	6.9	7.8	8.8
	SDT	95.9	100.5	109.6	118.8	127.9	136.9
35	TC	88.6	86.0	80.8	75.2	69.2	62.7
	kW	5.3	5.6	6.3	7.0	7.9	8.9
	SDT	97.4	101.9	111.0	120.1	129.0	137.9
40	TC	97.3	94.5	88.8	82.7	76.1	69.0
	kW	5.4	5.7	6.4	7.1	8.0	8.9
	SDT	98.9	103.4	112.4	121.4	130.3	139.0
45	TC	106.6	103.5	97.2	90.5	83.3	75.6
	kW	5.6	5.9	6.5	7.3	8.1	9.0
	SDT	100.6	105.0	113.9	122.8	131.5	140.1
50	TC	116.5	113.1	106.2	98.8	91.0	82.5
	kW	5.7	6.0	6.7	7.4	8.2	9.2
	SDT	102.4	106.8	115.5	124.2	132.9	141.3

LEGEND:
kW – Compressor Power
SDT – Saturated Discharge Temperature at Compressor
SST – Saturated Suction Temperature
TC – Gross Cooling Capacity (1000 Btuh)

PERFORMANCE DATA (cont.)

38AUZ07 - 40RUA07 **COMBINATION RATINGS** **SI**

				Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
850 L/S	EAT (wb)	14.4	THC	17.2	17.2	19.3	16.6	16.6	18.8	16.0	16.0	18.1	15.4	15.4	17.4	14.5	14.5	16.4
			SHC	15.0	17.2	19.3	14.5	16.6	18.8	14.0	16.0	18.1	13.5	15.4	17.4	12.7	14.5	16.4
			kW		3.6			4.3			4.9			5.7			6.5	
		16.7	THC	17.5	17.5	19.2	16.9	16.9	18.8	16.2	16.2	18.4	15.5	15.5	17.9	14.6	14.6	17.1
			SHC	13.8	16.5	19.2	13.5	16.2	18.8	13.2	15.8	18.4	12.8	15.4	17.9	12.2	14.6	17.1
			kW		3.6			4.2			4.9			5.7			6.5	
		19.4	THC	18.9	18.9	18.9	18.3	18.3	18.3	17.5	17.5	17.5	16.7	16.7	16.7	15.8	15.8	15.8
			SHC	11.2	13.9	16.6	10.9	13.6	16.3	10.6	13.3	16.0	10.3	13.0	15.7	9.9	12.6	15.3
			kW		3.6			4.2			4.9		5.7				6.5	
		22.2	THC	20.6	20.6	20.6	19.9	19.9	19.9	19.1	19.1	19.1	18.3	18.3	18.3	17.3	17.3	17.3
			SHC	8.4	11.2	13.9	8.2	10.9	13.6	7.9	10.6	13.3	7.6	10.3	13.0	7.2	9.9	12.7
			kW		3.5			4.1			4.8			5.6			6.5	
		24.4	THC	–	22.0	22.0	–	21.3	21.3	–	20.5	20.5	–	19.6	19.6	–	–	–
			SHC	–	9.0	11.8	–	8.7	11.5	–	8.4	11.2	–	8.1	10.9	–	–	–
			kW		3.5			4.1			4.8			5.6			–	
991 L/S	EAT (wb)	14.4	THC	17.9	17.9	20.2	17.4	17.4	19.5	16.7	16.7	18.8	16.1	16.1	18.1	15.3	15.3	17.3
			SHC	15.6	17.9	20.2	15.2	17.4	19.5	14.6	16.7	18.8	14.0	16.1	18.1	13.4	15.3	17.3
			kW		3.6			4.2			4.9			5.7			6.5	
		16.7	THC	18.0	18.0	20.6	17.4	17.4	20.3	16.7	16.7	19.6	16.1	16.1	18.8	15.3	15.3	17.9
			SHC	14.7	17.7	20.6	14.4	17.4	20.3	13.9	16.7	19.6	13.4	16.1	18.8	12.7	15.3	17.9
			kW		3.6			4.2			4.9			5.7			6.5	
		19.4	THC	19.3	19.3	19.3	18.6	18.6	18.6	17.8	17.8	17.8	17.0	17.0	17.1	16.1	16.1	16.7
			SHC	11.8	14.9	18.0	11.5	14.6	17.7	11.3	14.3	17.4	10.9	14.0	17.1	10.6	13.6	16.7
			kW		3.6			4.2			4.9			5.6			6.5	
		22.2	THC	21.0	21.0	21.0	20.3	20.3	20.3	19.5	19.5	19.5	18.6	18.6	18.6	17.6	17.6	17.6
			SHC	8.7	11.8	14.9	8.4	11.5	14.6	8.2	11.3	14.3	7.9	10.9	14.0	7.5	10.6	13.7
			kW		3.5			4.1			4.8			5.6			6.4	
		24.4	THC	–	22.4	22.4	–	21.7	21.7	–	20.8	20.8	–	–	–	–	–	–
			SHC	–	9.3	12.5	–	9.1	12.3	–	8.8	12.0	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
1133 L/S	EAT (wb)	14.4	THC	18.5	18.5	20.8	17.9	17.9	20.2	17.3	17.3	19.5	16.6	16.6	18.7	15.8	15.8	17.8
			SHC	16.1	18.5	20.8	15.7	17.9	20.2	15.1	17.3	19.5	14.5	16.6	18.7	13.8	15.8	17.8
			kW		3.6			4.2			4.9			5.7			6.5	
		16.7	THC	18.5	18.5	21.7	17.9	17.9	21.0	17.3	17.3	20.2	16.6	16.6	19.4	15.8	15.8	18.5
			SHC	15.4	18.5	21.7	14.9	17.9	21.0	14.4	17.3	20.2	13.8	16.6	19.4	13.2	15.8	18.5
			kW		3.6			4.2			4.9			5.7			6.5	
		19.4	THC	19.6	19.6	19.6	18.9	18.9	19.0	18.1	18.1	18.7	17.3	17.3	18.3	16.3	16.3	17.9
			SHC	12.4	15.9	19.3	12.1	15.6	19.0	11.8	15.3	18.7	11.5	14.9	18.3	11.1	14.5	17.9
			kW		3.5			4.2			4.9			5.6			6.5	
		22.2	THC	21.2	21.2	21.2	20.5	20.5	20.5	19.7	19.7	19.7	18.8	18.8	18.8	17.8	17.8	17.8
			SHC	8.9	12.4	15.9	8.7	12.1	15.6	8.4	11.8	15.3	8.1	11.5	14.9	7.7	11.2	14.6
			kW		3.5			4.1			4.8			5.6			6.4	
		24.4	THC	–	22.7	22.7	–	21.9	21.9	–	21.1	21.1	–	–	–	–	–	–
			SHC	–	9.6	13.2	–	9.4	12.9	–	9.1	12.6	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
1274 L/S	EAT (wb)	14.4	THC	19.0	19.0	21.4	18.4	18.4	20.7	17.7	17.7	20.0	17.0	17.0	19.2	16.2	16.2	18.3
			SHC	16.6	19.0	21.4	16.0	18.4	20.7	15.5	17.7	20.0	14.9	17.0	19.2	14.2	16.2	18.3
			kW	3.6			4.2			4.9			5.6			6.5		
		16.7	THC	19.0	19.0	22.2	18.4	18.4	21.5	17.7	17.7	20.8	17.0	17.0	19.9	16.2	16.2	19.0
			SHC	15.8	19.0	22.2	15.3	18.4	21.5	14.7	17.7	20.8	14.1	17.0	19.9	13.5	16.2	19.0
			kW	3.6			4.2			4.9			5.6			6.5		
		19.4	THC	19.8	19.8	20.5	19.1	19.1	20.2	18.3	18.3	19.9	17.5	17.5	19.5	16.5	16.5	19.1
			SHC	13.0	16.8	20.5	12.7	16.5	20.2	12.4	16.1	19.9	12.0	15.8	19.5	11.6	15.4	19.1
			kW	3.5			4.2			4.8			5.6			6.5		
		22.2	THC	21.5	21.5	21.5	20.8	20.8	20.8	19.9	19.9	19.9	19.0	19.0	19.0	–	–	–
			SHC	9.2	13.0	16.8	8.9	12.7	16.5	8.6	12.4	16.2	8.3	12.1	15.9	–	–	–
			kW	3.5			4.1			4.8			5.6			–		
		24.4	THC	–	22.9	22.9	–	22.2	22.2	–	21.3	21.3	–	–	–	–	–	–
			SHC	–	9.9	13.8	–	9.7	13.5	–	9.4	13.2	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
1416 L/S	EAT (wb)	14.4	THC	19.4	19.4	21.9	18.8	18.8	21.2	18.1	18.1	20.4	17.4	17.4	19.6	16.6	16.6	18.6
			SHC	16.9	19.4	21.9	16.4	18.8	21.2	15.8	18.1	20.4	15.2	17.4	19.6	14.4	16.6	18.6
			kW		3.5			4.2			4.9			5.6			6.5	
		16.7	THC	19.4	19.4	22.7	18.8	18.8	22.0	18.1	18.1	21.2	17.4	17.4	20.3	16.6	16.6	19.4
			SHC	16.1	19.4	22.7	15.6	18.8	22.0	15.1	18.1	21.2	14.4	17.4	20.3	13.7	16.6	19.4
			kW		3.5			4.2		4.8			5.6			6.5		
		19.4	THC	20.0	20.0	21.7	19.3	19.3	21.4	18.5	18.5	21.0	17.6	17.6	20.6	16.7	16.7	20.1
			SHC	13.5	17.6	21.7	13.2	17.3	21.4	12.9	17.0	21.0	12.5	16.6	20.6	12.1	16.1	20.1
			kW		3.5			4.1		4.8			5.6				6.5	
		22.2	THC	21.7	21.7	21.7	20.9	20.9	20.9	20.1	20.1	20.1	19.1	19.1	19.1	–	–	–
			SHC	9.4	13.5	17.6	9.1	13.2	17.4	8.8	12.9	17.1	8.5	12.6	16.7	–	–	–
			kW		3.5			4.1			4.8			5.6			–	
		24.4	THC	–	23.1	23.1	–	22.3	22.3	–	21.4	21.4	–	–	–	–	–	–
			SHC	–	10.2	14.4	–	9.9	14.1	–	9.6	13.8	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

				Ambient Temperature														
				85.0			95.0			105.0			115.0			125.0		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0
1800 cfm	EAT (wb)	58.0	THC	58.6	58.6	66.0	56.8	56.8	64.0	54.7	54.7	61.7	52.6	52.6	59.3	49.6	49.6	55.9
			SHC	51.1	58.6	66.0	49.6	56.8	64.0	47.8	54.7	61.7	45.9	52.6	59.3	43.3	49.6	55.9
			kW		3.6			4.3			4.9			5.7			6.5	
		62.0	THC	59.7	59.7	65.4	57.5	57.5	64.2	55.2	55.2	62.8	52.8	52.8	61.2	49.9	49.9	58.4
			SHC	47.2	56.3	65.4	46.2	55.2	64.2	44.9	53.9	62.8	43.6	52.4	61.2	41.5	49.9	58.4
			kW		3.6			4.2			4.9			5.7			6.5	
		67.0	THC	64.6	64.6	64.6	62.3	62.3	62.3	59.7	59.7	59.7	57.0	57.0	57.0	54.0	54.0	54.0
			SHC	38.2	47.4	56.6	37.2	46.4	55.6	36.2	45.4	54.6	35.1	44.3	53.4	33.8	43.0	52.2
			kW		3.6			4.2			4.9			5.7			6.5	
		72.0	THC	70.3	70.3	70.3	67.9	67.9	67.9	65.3	65.3	65.3	62.3	62.3	62.3	59.1	59.1	59.1
			SHC	28.8	38.1	47.4	27.9	37.2	46.5	27.0	36.2	45.5	25.9	35.1	44.4	24.7	33.9	43.2
			kW		3.5			4.1			4.8			5.6			6.5	
		76.0	THC	–	75.1	75.1	–	72.7	72.7	–	69.9	69.9	–	66.8	66.8	–	–	–
			SHC	–	30.6	40.2	–	29.8	39.3	–	28.8	38.3	–	27.7	37.2	–	–	–
			kW		3.5			4.1			4.8			5.6			–	
2100 cfm	EAT (wb)	58.0	THC	61.1	61.1	68.8	59.2	59.2	66.7	57.1	57.1	64.3	54.8	54.8	61.8	52.3	52.3	58.9
			SHC	53.3	61.1	68.8	51.7	59.2	66.7	49.8	57.1	64.3	47.9	54.8	61.8	45.6	52.3	58.9
			kW		3.6			4.2			4.9			5.7			6.5	
		62.0	THC	61.5	61.5	70.4	59.2	59.2	69.2	57.1	57.1	66.8	54.9	54.9	64.2	52.3	52.3	61.2
			SHC	50.3	60.3	70.4	49.2	59.2	69.2	47.4	57.1	66.8	45.6	54.9	64.2	43.5	52.3	61.2
			kW		3.6			4.2			4.9			5.7			6.5	
		67.0	THC	65.8	65.8	65.8	63.4	63.4	63.4	60.9	60.9	60.9	58.0	58.0	58.2	54.9	54.9	56.9
			SHC	40.4	50.9	61.4	39.4	49.9	60.4	38.4	48.9	59.3	37.2	47.7	58.2	36.0	46.4	56.9
			kW		3.6			4.2			4.9			5.6			6.5	
		72.0	THC	71.6	71.6	71.6	69.1	69.1	69.1	66.4	66.4	66.4	63.4	63.4	63.4	60.1	60.1	60.1
			SHC	29.7	40.3	50.9	28.8	39.4	49.9	27.9	38.4	48.9	26.8	37.3	47.8	25.6	36.1	46.6
			kW		3.5			4.1			4.8			5.6			6.4	
		76.0	THC	–	76.4	76.4	–	73.9	73.9	–	71.0	71.0	–	–	–	–	–	–
			SHC	–	31.8	42.6	–	30.9	41.8	–	29.9	40.8	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
2400 cfm	EAT (wb)	58.0	THC	63.1	63.1	71.1	61.1	61.1	68.9	58.9	58.9	66.4	56.6	56.6	63.8	54.0	54.0	60.9
			SHC	55.1	63.1	71.1	53.4	61.1	68.9	51.5	58.9	66.4	49.4	56.6	63.8	47.1	54.0	60.9
			kW		3.6			4.2			4.9			5.7			6.5	
		62.0	THC	63.2	63.2	73.9	61.2	61.2	71.5	59.0	59.0	68.9	56.6	56.6	66.2	54.0	54.0	63.2
			SHC	52.5	63.2	73.9	50.8	61.2	71.5	49.0	59.0	68.9	47.0	56.6	66.2	44.9	54.0	63.2
			kW		3.6			4.2			4.9			5.7			6.5	
		67.0	THC	66.8	66.8	66.8	64.4	64.4	64.9	61.8	61.8	63.8	58.9	58.9	62.5	55.7	55.7	61.1
			SHC	42.4	54.2	65.9	41.4	53.2	64.9	40.4	52.1	63.8	39.2	50.9	62.5	37.9	49.5	61.1
			kW		3.5			4.2			4.9			5.6			6.5	
		72.0	THC	72.5	72.5	72.5	70.1	70.1	70.1	67.3	67.3	67.3	64.2	64.2	64.2	60.7	60.7	60.7
			SHC	30.5	42.3	54.1	29.7	41.4	53.2	28.7	40.4	52.2	27.6	39.3	51.0	26.4	38.1	49.7
			kW		3.5		4.1			4.8				5.6			6.4	
		76.0	THC	–	77.4	77.4	–	74.8	74.8	–	71.9	71.9	–	–	–	–	–	–
			SHC	–	32.8	44.9	–	32.0	44.0	–	31.0	43.0	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
2700 cfm	EAT (wb)	58.0	THC	64.8	64.8	73.0	62.7	62.7	70.7	60.5	60.5	68.2	58.0	58.0	65.4	55.4	55.4	62.4
			SHC	56.6	64.8	73.0	54.7	62.7	70.7	52.8	60.5	68.2	50.7	58.0	65.4	48.3	55.4	62.4
			kW		3.6			4.2			4.9			5.6			6.5	
		62.0	THC	64.8	64.8	75.8	62.7	62.7	73.4	60.5	60.5	70.8	58.1	58.1	67.9	55.4	55.4	64.8
			SHC	53.9	64.8	75.8	52.1	62.7	73.4	50.3	60.5	70.8	48.2	58.1	67.9	46.0	55.4	64.8
			kW		3.6			4.2			4.9			5.6			6.5	
		67.0	THC	67.6	67.6	70.1	65.1	65.1	69.0	62.5	62.5	67.9	59.6	59.6	66.6	56.4	56.4	65.1
			SHC	44.3	57.2	70.1	43.3	56.2	69.0	42.3	55.1	67.9	41.1	53.8	66.6	39.7	52.4	65.1
			kW		3.5			4.2			4.8			5.6			6.5	
		72.0	THC	73.3	73.3	73.3	70.8	70.8	70.8	67.9	67.9	67.9	64.8	64.8	64.8	–	–	–
			SHC	31.3	44.3	57.2	30.4	43.3	56.3	29.4	42.3	55.2	28.3	41.2	54.1	–	–	–
			kW		3.5			4.1			4.8			5.6			–	
		76.0	THC	–	78.2	78.2	–	75.6	75.6	–	72.6	72.6	–	–	–	–	–	–
			SHC	–	33.9	47.1	–	33.0	46.2	–	32.0	45.2	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	
3000 cfm	EAT (wb)	58.0	THC	66.2	66.2	74.6	64.1	64.1	72.2	61.8	61.8	69.6	59.3	59.3	66.8	56.5	56.5	63.6
			SHC	57.8	66.2	74.6	55.9	64.1	72.2	53.9	61.8	69.6	51.8	59.3	66.8	49.3	56.5	63.6
			kW		3.5			4.2			4.9			5.6			6.5	
		62.0	THC	66.2	66.2	77.4	64.1	64.1	75.0	61.8	61.8	72.3	59.3	59.3	69.4	56.5	56.5	66.1
			SHC	55.0	66.2	77.4	53.3	64.1	75.0	51.4	61.8	72.3	49.3	59.3	69.4	46.9	56.5	66.1
			kW		3.5			4.2			4.8			5.6			6.5	
		67.0	THC	68.2	68.2	74.0	65.8	65.8	72.9	63.1	63.1	71.7	60.2	60.2	70.3	57.0	57.0	68.5
			SHC	46.1	60.1	74.0	45.1	59.0	72.9	44.0	57.9	71.7	42.7	56.5	70.3	41.3	54.9	68.5
			kW		3.5			4.1			4.8			5.6			6.5	
		72.0	THC	73.9	73.9	73.9	71.3	71.3	71.3	68.5	68.5	68.5	65.3	65.3	65.3	–	–	–
			SHC	32.0	46.1	60.2	31.1	45.2	59.2	30.1	44.1	58.2	29.0	43.0	57.0	–	–	–
			kW		3.5			4.1			4.8			5.6			–	
		76.0	THC	–	78.9	78.9	–	76.2	76.2	–	73.1	73.1	–	–	–	–	–	–
			SHC	–	34.8	49.2	–	33.9	48.2	–	32.9	47.2	–	–	–	–	–	–
			kW		3.4			4.1			4.8			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUZ08 - 40RUA08 **COMBINATION RATINGS** **SI**

				Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
1062 L/S	EAT (wb)	14.4	THC	21.9	21.9	24.6	21.2	21.2	23.9	20.4	20.4	23.0	19.5	19.5	22.0	18.6	18.6	21.0
			SHC	19.1	21.9	24.6	18.5	21.2	23.9	17.8	20.4	23.0	17.1	19.5	22.0	16.2	18.6	21.0
			Kw		4.6			5.4			6.2			7.2			8.2	
		16.7	THC	22.5	22.5	24.3	21.6	21.6	23.9	20.7	20.7	23.3	19.6	19.6	22.7	18.6	18.6	21.7
			SHC	17.6	21.0	24.3	17.2	20.5	23.9	16.7	20.0	23.3	16.1	19.4	22.7	15.4	18.6	21.7
			kW		4.6			5.4			6.3			7.2			8.2	
		19.4	THC	24.4	24.4	24.4	23.5	23.5	23.5	22.4	22.4	22.4	21.3	21.3	21.3	20.0	20.0	20.0
			SHC	14.3	17.7	21.1	13.9	17.3	20.7	13.5	16.9	20.3	13.0	16.4	19.8	12.5	15.9	19.3
			kW		4.7			5.5			6.3			7.2			8.2	
		22.2	THC	26.5	26.5	26.5	25.5	25.5	25.5	24.4	24.4	24.4	23.2	23.2	23.2	–	–	–
			SHC	10.8	14.3	17.7	10.5	13.9	17.3	10.1	13.5	16.9	9.6	13.0	16.4	–	–	–
			kW		4.8			5.5			6.4			7.3			–	
		24.4	THC	–	28.3	28.3	–	27.3	27.3	–	26.1	26.1	–	24.8	24.8	–	–	–
			SHC	–	11.5	15.0	–	11.1	14.6	–	10.7	14.2	–	10.3	13.8	–	–	–
			kW		4.8			5.6			6.4			7.4			–	
1239 L/S	EAT (wb)	14.4	THC	22.9	22.9	25.8	22.1	22.1	24.9	21.3	21.3	24.0	20.4	20.4	22.9	19.4	19.4	21.8
			SHC	20.0	22.9	25.8	19.3	22.1	24.9	18.6	21.3	24.0	17.8	20.4	22.9	16.9	19.4	21.8
			kW		4.6			5.4			6.3			7.2			8.2	
		16.7	THC	23.1	23.1	26.4	22.2	22.2	25.9	21.3	21.3	24.9	20.4	20.4	23.9	19.4	19.4	22.7
			SHC	18.9	22.7	26.4	18.4	22.2	25.9	17.7	21.3	24.9	16.9	20.4	23.9	16.1	19.4	22.7
			kW		4.7			5.4			6.3			7.2			8.2	
		19.4	THC	24.9	24.9	24.9	23.9	23.9	23.9	22.9	22.9	22.9	21.7	21.7	21.7	20.4	20.4	21.1
			SHC	15.2	19.1	23.0	14.8	18.7	22.6	14.3	18.2	22.1	13.9	17.8	21.6	13.4	17.2	21.1
			kW		4.7			5.5			6.3			7.2			8.2	
		22.2	THC	27.1	27.1	27.1	26.0	26.0	26.0	24.9	24.9	24.9	23.6	23.6	23.6	22.2	22.2	22.2
			SHC	11.2	15.1	19.1	10.8	14.7	18.6	10.4	14.3	18.2	10.0	13.9	17.8	9.5	13.4	17.3
			kW		4.8			5.5			6.4			7.3			8.3	
		24.4	THC	–	28.9	28.9	–	27.8	27.8	–	26.6	26.6	–	–	–	–	–	–
			SHC	–	11.9	16.0	–	11.6	15.6	–	11.2	15.2						
			kW		4.8			5.6			6.5			–			–	
1416 L/S	EAT (wb)	14.4	THC	23.7	23.7	26.7	22.9	22.9	25.8	22.0	22.0	24.8	21.1	21.1	23.7	20.0	20.0	22.5
			SHC	20.7	23.7	26.7	20.0	22.9	25.8	19.2	22.0	24.8	18.4	21.1	23.7	17.5	20.0	22.5
			kW		4.7			5.4			6.3			7.2			8.2	
		16.7	THC	23.7	23.7	27.8	22.9	22.9	26.8	22.0	22.0	25.8	21.1	21.1	24.6	20.0	20.0	23.4
			SHC	19.7	23.7	27.8	19.1	22.9	26.8	18.3	22.0	25.8	17.5	21.1	24.6	16.6	20.0	23.4
			kW		4.7			5.4			6.3			7.2			8.2	
		19.4	THC	25.3	25.3	25.3	24.3	24.3	24.4	23.2	23.2	23.9	22.0	22.0	23.4	20.7	20.7	22.8
			SHC	16.0	20.4	24.8	15.6	20.0	24.4	15.2	19.5	23.9	14.7	19.0	23.4	14.1	18.5	22.8
			kW		4.7			5.5			6.3			7.3			8.3	
		22.2	THC	27.4	27.4	27.4	26.4	26.4	26.4	25.2	25.2	25.2	23.9	23.9	23.9	22.5	22.5	22.5
			SHC	11.5	15.9	20.3	11.1	15.6	20.0	10.7	15.1	19.5	10.3	14.7	19.1	9.8	14.2	18.6
			kW		4.8			5.6			6.4			7.3			8.3	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
1593 L/S	EAT (wb)	14.4	THC	24.4	24.4	27.5	23.5	23.5	26.5	22.6	22.6	25.5	21.6	21.6	24.4	20.5	20.5	23.1
			SHC	21.3	24.4	27.5	20.5	23.5	26.5	19.8	22.6	25.5	18.9	21.6	24.4	17.9	20.5	23.1
			kW		4.7			5.5			6.3			7.2			8.2	
		16.7	THC	24.4	24.4	28.5	23.6	23.6	27.5	22.6	22.6	26.5	21.6	21.6	25.3	20.5	20.5	24.0
			SHC	20.3	24.4	28.5	19.6	23.6	27.5	18.8	22.6	26.5	18.0	21.6	25.3	17.1	20.5	24.0
			kW		4.7			5.5			6.3			7.2			8.2	
		19.4	THC	25.6	25.6	26.5	24.6	24.6	26.0	23.5	23.5	25.5	22.2	22.2	25.0	21.0	21.0	24.4
			SHC	16.8	21.6	26.5	16.3	21.2	26.0	15.9	20.7	25.5	15.4	20.2	25.0	14.8	19.6	24.4
			kW		4.7			5.5			6.3			7.3			8.3	
		22.2	THC	27.7	27.7	27.7	26.7	26.7	26.7	25.5	25.5	25.5	24.2	24.2	24.2	–	–	–
			SHC	11.8	16.7	21.6	11.5	16.4	21.2	11.0	15.9	20.8	10.6	15.5	20.3	–	–	–
			kW		4.8			5.6			6.4			7.3			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
1770 L/S	EAT (wb)	14.4	THC	24.9	24.9	28.1	24.1	24.1	27.1	23.1	23.1	26.1	22.1	22.1	24.9	21.0	21.0	23.6
			SHC	21.8	24.9	28.1	21.0	24.1	27.1	20.2	23.1	26.1	19.3	22.1	24.9	18.3	21.0	23.6
			kW		4.7			5.5			6.3			7.3			8.3	
		16.7	THC	24.9	24.9	29.2	24.1	24.1	28.2	23.2	23.2	27.1	22.1	22.1	25.8	21.0	21.0	24.5
			SHC	20.7	24.9	29.2	20.0	24.1	28.2	19.2	23.2	27.1	18.3	22.1	25.8	17.4	21.0	24.5
			kW		4.7			5.5			6.3			7.3			8.3	
		19.4	THC	25.8	25.8	28.1	24.8	24.8	27.6	23.7	23.7	27.1	22.5	22.5	26.5	21.2	21.2	25.7
			SHC	17.5	22.8	28.1	17.1	22.3	27.6	16.6	21.8	27.1	16.1	21.2	26.5	15.4	20.6	25.7
			kW		4.7			5.5			6.3			7.3			8.3	
		22.2	THC	28.0	28.0	28.0	26.9	26.9	26.9	25.7	25.7	25.7	24.4	24.4	24.4	–	–	–
			SHC	12.1	17.5	22.9	11.8	17.1	22.5	11.3	16.7	22.0	10.9	16.2	21.6	–	–	–
			kW		4.8			5.6			6.4			7.3			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUZ08 - 40RUA08 **COMBINATION RATINGS** **ENGLISH**

				Ambient Temperature															
				85.0			95.0			105.0			115.0			125.0			
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
2250 cfm	EAT (wb)	58.0	THC	74.7	74.7	84.1	72.2	72.2	81.4	69.6	69.6	78.4	66.6	66.6	75.1	63.4	63.4	71.5	
			SHC	65.2	74.7	84.1	63.1	72.2	81.4	60.7	69.6	78.4	58.2	66.6	75.1	55.4	63.4	71.5	
			kW		4.6			5.4			6.2			7.2			8.2		
		62.0	THC	76.7	76.7	83.0	73.7	73.7	81.4	70.5	70.5	79.6	67.0	67.0	77.3	63.5	63.5	74.2	
			SHC	60.2	71.6	83.0	58.7	70.0	81.4	57.1	68.3	79.6	55.1	66.2	77.3	52.7	63.5	74.2	
			kW		4.6			5.4			6.3			7.2			8.2		
		67.0	THC	83.3	83.3	83.3	80.1	80.1	80.1	76.5	76.5	76.5	72.6	72.6	72.6	68.4	68.4	68.4	
			SHC	48.8	60.4	72.0	47.5	59.0	70.6	46.0	57.6	69.1	44.5	56.0	67.5	42.8	54.3	65.8	
			kW		4.7			5.5			6.3			7.2			8.2		
		72.0	THC	90.5	90.5	90.5	87.1	87.1	87.1	83.3	83.3	83.3	79.2	79.2	79.2	–	–	–	
			SHC	37.0	48.7	60.3	35.8	47.4	59.0	34.4	46.0	57.6	32.8	44.4	56.0	–	–	–	
			kW		4.8		5.5			6.4				7.3			–		
		76.0	THC	–	96.5	96.5	–	93.0	93.0	–	89.1	89.1	–	84.7	84.7	–	–	–	
			SHC	–	39.2	51.2	–	37.9	49.9	–	36.6	48.5	–	35.1	47.0	–	–	–	
			kW		4.8		5.6			6.4				7.4			–		
2625 cfm	EAT (wb)	58.0	THC	78.1	78.1	88.0	75.5	75.5	85.1	72.7	72.7	81.9	69.5	69.5	78.3	66.1	66.1	74.5	
			SHC	68.2	78.1	88.0	65.9	75.5	85.1	63.4	72.7	81.9	60.7	69.5	78.3	57.7	66.1	74.5	
			kW		4.6		5.4			6.3				7.2			8.2		
		62.0	THC	78.8	78.8	90.1	75.7	75.7	88.5	72.7	72.7	85.0	69.6	69.6	81.4	66.2	66.2	77.4	
			SHC	64.4	77.3	90.1	62.9	75.7	88.5	60.4	72.7	85.0	57.8	69.6	81.4	54.9	66.2	77.4	
			kW		4.7		5.4			6.3				7.2			8.2		
		67.0	THC	85.1	85.1	85.1	81.7	81.7	81.7	78.0	78.0	78.0	74.0	74.0	74.0	69.7	69.7	72.0	
			SHC	51.8	65.1	78.4	50.4	63.7	77.0	48.9	62.2	75.5	47.3	60.6	73.8	45.6	58.8	72.0	
			kW		4.7			5.5			6.3			7.2			8.2		
		72.0	THC	92.3	92.3	92.3	88.7	88.7	88.7	84.9	84.9	84.9	80.6	80.6	80.6	75.9	75.9	75.9	
			SHC	38.2	51.6	65.0	36.9	50.3	63.6	35.5	48.9	62.2	34.0	47.3	60.6	32.4	45.6	58.9	
			kW		4.8			5.5			6.4			7.3			8.3		
		76.0	THC	–	98.5	98.5	–	94.7	94.7	–	90.7	90.7	–	–	–	–	–	–	
			SHC	–	40.7	54.5	–	39.5	53.1	–	38.1	51.7	–	–	–	–	–	–	
			kW		4.8			5.6			6.5			–			–		
3000 cfm	EAT (wb)	58.0	THC	80.9	80.9	91.2	78.2	78.2	88.1	75.2	75.2	84.7	71.9	71.9	81.0	68.3	68.3	76.9	
			SHC	70.6	80.9	91.2	68.2	78.2	88.1	65.6	75.2	84.7	62.8	71.9	81.0	59.6	68.3	76.9	
			kW		4.7			5.4			6.3			7.2			8.2		
		62.0	THC	81.0	81.0	94.7	78.3	78.3	91.6	75.2	75.2	88.0	71.9	71.9	84.1	68.3	68.3	79.9	
			SHC	67.3	81.0	94.7	65.0	78.3	91.6	62.5	75.2	88.0	59.7	71.9	84.1	56.8	68.3	79.9	
			kW		4.7			5.4			6.3			7.2			8.2		
		67.0	THC	86.3	86.3	86.3	82.9	82.9	83.1	79.2	79.2	81.5	75.1	75.1	79.7	70.7	70.7	77.8	
			SHC	54.5	69.5	84.5	53.2	68.1	83.1	51.7	66.6	81.5	50.0	64.9	79.7	48.2	63.0	77.8	
			kW		4.7			5.5			6.3			7.3			8.3		
		72.0	THC	93.6	93.6	93.6	90.0	90.0	90.0	86.0	86.0	86.0	81.6	81.6	81.6	76.9	76.9	76.9	
			SHC	39.3	54.4	69.4	38.0	53.1	68.1	36.6	51.6	66.7	35.1	50.1	65.1	33.4	48.4	63.4	
			kW		4.8			5.6			6.4			7.3			8.3		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–		–				–			–		
3375 cfm	EAT (wb)	58.0	THC	83.1	83.1	93.7	80.3	80.3	90.5	77.2	77.2	87.0	73.8	73.8	83.1	70.0	70.0	78.9	
			SHC	72.6	83.1	93.7	70.1	80.3	90.5	67.4	77.2	87.0	64.4	73.8	83.1	61.1	70.0	78.9	
			kW		4.7			5.5			6.3			7.2			8.2		
		62.0	THC	83.2	83.2	97.3	80.4	80.4	94.0	77.2	77.2	90.3	73.8	73.8	86.3	70.1	70.1	81.9	
			SHC	69.1	83.2	97.3	66.8	80.4	94.0	64.2	77.2	90.3	61.3	73.8	86.3	58.2	70.1	81.9	
			kW		4.7			5.5			6.3			7.2			8.2		
		67.0	THC	87.4	87.4	90.3	83.9	83.9	88.8	80.1	80.1	87.1	75.9	75.9	85.3	71.5	71.5	83.1	
			SHC	57.2	73.7	90.3	55.7	72.3	88.8	54.2	70.7	87.1	52.5	68.9	85.3	50.6	66.9	83.1	
			kW		4.7			5.5			6.3			7.3			8.3		
		72.0	THC	94.6	94.6	94.6	91.0	91.0	91.0	86.9	86.9	86.9	82.5	82.5	82.5	–	–	–	
			SHC	40.4	57.1	73.8	39.1	55.8	72.4	37.7	54.3	71.0	36.1	52.8	69.4	–	–	–	
			kW		4.8			5.6			6.4			7.3			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
3750 cfm	EAT (wb)	58.0	THC	85.1	85.1	95.8	82.1	82.1	92.5	78.9	78.9	88.9	75.4	75.4	84.9	71.5	71.5	80.6	
			SHC	74.3	85.1	95.8	71.7	82.1	92.5	68.9	78.9	88.9	65.8	75.4	84.9	62.4	71.5	80.6	
			kW		4.7			5.5			6.3			7.3			8.3		
		62.0	THC	85.1	85.1	99.5	82.2	82.2	96.1	79.0	79.0	92.3	75.4	75.4	88.2	71.5	71.5	83.6	
			SHC	70.7	85.1	99.5	68.3	82.2	96.1	65.6	79.0	92.3	62.6	75.4	88.2	59.4	71.5	83.6	
			kW		4.7			5.5			6.3			7.3			8.3		
		67.0	THC	88.2	88.2	95.8	84.7	84.7	94.2	80.9	80.9	92.4	76.7	76.7	90.3	72.2	72.2	87.8	
			SHC	59.6	77.7	95.8	58.2	76.2	94.2	56.6	74.5	92.4	54.8	72.5	90.3	52.7	70.3	87.8	
			kW		4.7			5.5			6.3			7.3			8.3		
		72.0	THC	95.5	95.5	95.5	91.7	91.7	91.7	87.6	87.6	87.6	83.1	83.1	83.1	–	–	–	
			SHC	41.4	59.7	78.0	40.1	58.4	76.6	38.7	56.9	75.2	37.1	55.3	73.6	–	–	–	
			kW		4.8			5.6			6.4			7.3			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD12 - 40RUA12 **COMBINATION RATINGS** **SI**

				Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
1416 L/S	EAT (wb)	14.4	THC	28.2	28.2	31.8	27.2	27.2	30.7	26.1	26.1	29.4	24.9	24.9	28.1	23.5	23.5	26.5
			SHC	24.6	28.2	31.8	23.8	27.2	30.7	22.8	26.1	29.4	21.7	24.9	28.1	20.5	23.5	26.5
			kW		5.9			6.8			7.9			9.0			10.2	
		16.7	THC	28.7	28.7	31.9	27.5	27.5	31.2	26.2	26.2	30.4	24.9	24.9	29.2	23.6	23.6	27.5
			SHC	22.9	27.4	31.9	22.3	26.8	31.2	21.7	26.1	30.4	20.7	24.9	29.2	19.6	23.6	27.5
			kW		5.9			6.8			7.9			9.0			10.2	
		19.4	THC	31.2	31.2	31.2	29.9	29.9	29.9	28.5	28.5	28.5	26.9	26.9	26.9	25.1	25.1	25.1
			SHC	18.6	23.1	27.6	18.0	22.5	27.1	17.4	22.0	26.5	16.8	21.3	25.8	16.1	20.6	25.1
			kW		6.0			6.9			7.9			9.0			10.2	
		22.2	THC	33.8	33.8	33.8	32.5	32.5	32.5	31.0	31.0	31.0	29.3	29.3	29.3	–	–	–
			SHC	13.9	18.5	23.0	13.4	18.0	22.5	12.9	17.4	22.0	12.3	16.8	21.4	–	–	–
			kW		6.0		7.0				8.0			9.1			10.3	
		24.4	THC	–	36.1	36.1	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	14.7	19.3	–	–	–	–	–	–	–	–	–	–	–	–
			kW		6.1			–			–			–			–	
1652 L/S	EAT (wb)	14.4	THC	29.5	29.5	33.2	28.4	28.4	32.0	27.3	27.3	30.7	26.0	26.0	29.3	24.6	24.6	27.7
			SHC	25.7	29.5	33.2	24.8	28.4	32.0	23.8	27.3	30.7	22.7	26.0	29.3	21.4	24.6	27.7
			kW		5.9			6.9			7.9			9.0			10.2	
		16.7	THC	29.6	29.6	34.3	28.5	28.5	33.3	27.3	27.3	31.9	26.0	26.0	30.4	24.6	24.6	28.7
			SHC	24.4	29.3	34.3	23.6	28.5	33.3	22.7	27.3	31.9	21.6	26.0	30.4	20.4	24.6	28.7
			kW		5.9			6.9			7.9			9.0			10.2	
		19.4	THC	31.8	31.8	31.8	30.5	30.5	30.5	29.0	29.0	29.0	27.4	27.4	28.3	25.6	25.6	27.5
			SHC	19.7	24.9	30.1	19.1	24.4	29.6	18.6	23.8	29.0	17.9	23.1	28.3	17.2	22.4	27.5
			kW		6.0			6.9			7.9			9.1			10.2	
		22.2	THC	34.5	34.5	34.5	33.1	33.1	33.1	31.5	31.5	31.5	29.8	29.8	29.8	28.0	28.0	28.0
			SHC	14.4	19.6	24.9	13.9	19.1	24.4	13.3	18.6	23.8	12.7	17.9	23.2	12.0	17.3	22.5
			kW		6.1			7.0			8.0			9.1			10.3	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
1888 L/S	EAT (wb)	14.4	THC	30.5	30.5	34.3	29.4	29.4	33.1	28.2	28.2	31.7	26.8	26.8	30.2	25.3	25.3	28.5
			SHC	26.6	30.5	34.3	25.7	29.4	33.1	24.6	28.2	31.7	23.4	26.8	30.2	22.1	25.3	28.5
			kW		5.9			6.9			7.9			9.0			10.2	
		16.7	THC	30.5	30.5	35.7	29.4	29.4	34.4	28.2	28.2	33.0	26.8	26.8	31.4	25.4	25.4	29.7
			SHC	25.4	30.5	35.7	24.4	29.4	34.4	23.4	28.2	33.0	22.3	26.8	31.4	21.1	25.4	29.7
			kW		5.9			6.9			7.9			9.0			10.2	
		19.4	THC	32.3	32.3	32.5	30.9	30.9	31.9	29.4	29.4	31.3	27.8	27.8	30.6	26.0	26.0	29.8
			SHC	20.8	26.6	32.5	20.2	26.1	31.9	19.6	25.5	31.3	19.0	24.8	30.6	18.2	24.0	29.8
			kW		6.0			6.9			8.0			9.1			10.2	
		22.2	THC	34.9	34.9	34.9	33.5	33.5	33.5	31.9	31.9	31.9	30.2	30.2	30.2	–	–	–
			SHC	14.8	20.7	26.6	14.3	20.2	26.1	13.7	19.6	25.6	13.2	19.1	24.9	–	–	–
			kW		6.1			7.0			8.0			9.1			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
2124 L/S	EAT (wb)	14.4	THC	31.3	31.3	35.3	30.2	30.2	34.0	28.9	28.9	32.6	27.5	27.5	31.0	26.0	26.0	29.3
			SHC	27.3	31.3	35.3	26.3	30.2	34.0	25.3	28.9	32.6	24.0	27.5	31.0	22.7	26.0	29.3
			kW		6.0			6.9			7.9			9.1			10.2	
		16.7	THC	31.4	31.4	36.7	30.2	30.2	35.3	29.0	29.0	33.9	27.5	27.5	32.2	26.0	26.0	30.4
			SHC	26.1	31.4	36.7	25.1	30.2	35.3	24.0	29.0	33.9	22.9	27.5	32.2	21.6	26.0	30.4
			kW		6.0			6.9			7.9			9.1			10.2	
		19.4	THC	32.6	32.6	34.8	31.2	31.2	34.2	29.7	29.7	33.5	28.1	28.1	32.7	26.3	26.3	31.7
			SHC	21.8	28.3	34.8	21.2	27.7	34.2	20.6	27.1	33.5	19.9	26.3	32.7	19.1	25.4	31.7
			kW		6.0			6.9			8.0			9.1			10.2	
		22.2	THC	35.3	35.3	35.3	33.8	33.8	33.8	32.2	32.2	32.2	–	–	–	–	–	–
			SHC	15.2	21.8	28.3	14.7	21.2	27.8	14.2	20.7	27.3	–	–	–	–	–	–
			kW		6.1			7.0			8.0			–			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
2360 L/S	EAT (wb)	14.4	THC	32.0	32.0	36.1	30.9	30.9	34.8	29.5	29.5	33.3	28.1	28.1	31.7	26.5	26.5	29.9
			SHC	28.0	32.0	36.1	26.9	30.9	34.8	25.8	29.5	33.3	24.6	28.1	31.7	23.2	26.5	29.9
			kW		6.0			6.9			8.0			9.1			10.2	
		16.7	THC	32.0	32.0	37.5	30.9	30.9	36.1	29.6	29.6	34.6	28.1	28.1	32.9	26.6	26.6	31.0
			SHC	26.6	32.0	37.5	25.6	30.9	36.1	24.6	29.6	34.6	23.4	28.1	32.9	22.0	26.6	31.0
			kW		6.0			6.9			8.0			9.1			10.2	
		19.4	THC	32.9	32.9	36.9	31.6	31.6	36.2	30.0	30.0	35.5	28.4	28.4	34.5	26.6	26.6	33.3
			SHC	22.7	29.8	36.9	22.2	29.2	36.2	21.5	28.5	35.5	20.8	27.6	34.5	19.8	26.6	33.3
			kW		6.0			7.0			8.0			9.1			10.2	
		22.2	THC	35.6	35.6	35.6	34.1	34.1	34.1	–	–	–	–	–	–	–	–	–
			SHC	15.6	22.8	30.0	15.1	22.3	29.5	–	–	–	–	–	–	–	–	–
			kW		6.1			7.0			–			–			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD12 - 40RUA12 **COMBINATION RATINGS** **ENGLISH**

				Ambient Temperature															
				85.0			95.0			105.0			115.0			125.0			
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
3000 cfm	EAT (wb)	58.0	THC	96.3	96.3	108.5	92.9	92.9	104.6	89.1	89.1	100.4	85.0	85.0	95.8	80.3	80.3	90.5	
			SHC	84.1	96.3	108.5	81.1	92.9	104.6	77.8	89.1	100.4	74.2	85.0	95.8	70.1	80.3	90.5	
			kW		5.9			6.8			7.9			9.0			10.2		
		62.0	THC	98.0	98.0	108.7	94.0	94.0	106.4	89.5	89.5	103.8	85.1	85.1	99.5	80.4	80.4	94.0	
			SHC	78.3	93.5	108.7	76.2	91.3	106.4	73.9	88.9	103.8	70.7	85.1	99.5	66.8	80.4	94.0	
			kW		5.9		6.8			7.9			9.0				10.2		
		67.0	THC	106.4	106.4	106.4	102.0	102.0	102.0	97.1	97.1	97.1	91.7	91.7	91.7	85.8	85.8	85.8	
			SHC	63.3	78.7	94.2	61.5	76.9	92.4	59.5	74.9	90.4	57.3	72.8	88.2	54.9	70.3	85.8	
			kW		6.0		6.9			7.9			9.0				10.2		
		72.0	THC	115.4	115.4	115.4	110.8	110.8	110.8	105.8	105.8	105.8	100.1	100.1	100.1	93.8	93.8	93.8	
			SHC	47.4	63.0	78.6	45.7	61.3	76.8	43.9	59.4	75.0	41.8	57.4	72.9	39.6	55.1	70.6	
			kW		6.0			7.0			8.0			9.1			10.3		
		76.0	THC	–	123.2	123.2	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	50.2	66.0	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		6.1			–			–			–			–		
3500 cfm	EAT (wb)	58.0	THC	100.6	100.6	113.4	97.0	97.0	109.3	93.0	93.0	104.8	88.6	88.6	99.9	83.8	83.8	94.4	
			SHC	87.8	100.6	113.4	84.7	97.0	109.3	81.2	93.0	104.8	77.4	88.6	99.9	73.1	83.8	94.4	
			kW		5.9			6.9			7.9			9.0			10.2		
		62.0	THC	100.9	100.9	117.0	97.1	97.1	113.5	93.1	93.1	108.9	88.7	88.7	103.7	83.8	83.8	98.0	
			SHC	83.2	100.1	117.0	80.6	97.1	113.5	77.3	93.1	108.9	73.7	88.7	103.7	69.6	83.8	98.0	
			kW		5.9			6.9			7.9			9.0			10.2		
		67.0	THC	108.5	108.5	108.5	104.0	104.0	104.0	98.9	98.9	98.9	93.4	93.4	96.5	87.3	87.3	94.0	
			SHC	67.2	85.0	102.8	65.3	83.1	100.9	63.3	81.1	98.8	61.1	78.8	96.5	58.7	76.3	94.0	
			kW		6.0			6.9			7.9			9.1			10.2		
		72.0	THC	117.6	117.6	117.6	112.8	112.8	112.8	107.6	107.6	107.6	101.8	101.8	101.8	95.4	95.4	95.4	
			SHC	49.0	66.9	84.8	47.3	65.2	83.1	45.4	63.3	81.2	43.4	61.2	79.1	41.1	59.0	76.8	
			kW		6.1			7.0			8.0			9.1			10.3		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
4000 cfm	EAT (wb)	58.0	THC	104.0	104.0	117.2	100.3	100.3	113.0	96.1	96.1	108.3	91.5	91.5	103.1	86.4	86.4	97.4	
			SHC	90.8	104.0	117.2	87.6	100.3	113.0	83.9	96.1	108.3	79.9	91.5	103.1	75.5	86.4	97.4	
			kW		5.9			6.9			7.9			9.0			10.2		
		62.0	THC	104.1	104.1	121.8	100.4	100.4	117.4	96.2	96.2	112.5	91.6	91.6	107.1	86.5	86.5	101.2	
			SHC	86.5	104.1	121.8	83.4	100.4	117.4	79.9	96.2	112.5	76.1	91.6	107.1	71.9	86.5	101.2	
			kW		5.9			6.9			7.9			9.0			10.2		
		67.0	THC	110.1	110.1	110.9	105.5	105.5	109.0	100.3	100.3	106.8	94.7	94.7	104.4	88.6	88.6	101.6	
			SHC	70.8	90.9	110.9	69.0	89.0	109.0	66.9	86.9	106.8	64.7	84.5	104.4	62.1	81.9	101.6	
			kW		6.0			6.9			8.0			9.1			10.2		
		72.0	THC	119.2	119.2	119.2	114.3	114.3	114.3	109.0	109.0	109.0	103.1	103.1	103.1	–	–	–	
			SHC	50.5	70.7	90.8	48.8	68.9	89.1	46.9	67.0	87.2	44.9	65.0	85.1	–	–	–	
			kW		6.1			7.0			8.0			9.1			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
4500 cfm	EAT (wb)	58.0	THC	106.9	106.9	120.5	103.0	103.0	116.0	98.7	98.7	111.2	93.9	93.9	105.8	88.6	88.6	99.9	
			SHC	93.3	106.9	120.5	89.9	103.0	116.0	86.2	98.7	111.2	82.0	93.9	105.8	77.4	88.6	99.9	
			kW		6.0			6.9			7.9			9.1			10.2		
		62.0	THC	107.0	107.0	125.1	103.1	103.1	120.5	98.8	98.8	115.5	94.0	94.0	109.9	88.7	88.7	103.7	
			SHC	88.9	107.0	125.1	85.6	103.1	120.5	82.0	98.8	115.5	78.1	94.0	109.9	73.7	88.7	103.7	
			kW		6.0			6.9			7.9			9.1			10.2		
		67.0	THC	111.3	111.3	118.6	106.6	106.6	116.6	101.5	101.5	114.3	95.8	95.8	111.6	89.6	89.6	108.3	
			SHC	74.3	96.5	118.6	72.4	94.5	116.6	70.3	92.3	114.3	67.9	89.7	111.6	65.2	86.7	108.3	
			kW		6.0			6.9			8.0			9.1			10.2		
		72.0	THC	120.5	120.5	120.5	115.4	115.4	115.4	110.0	110.0	110.0	–	–	–	–	–	–	
			SHC	51.9	74.3	96.7	50.2	72.5	94.9	48.3	70.7	93.0	–	–	–	–	–	–	
			kW		6.1			7.0			8.0			–			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
5000 cfm	EAT (wb)	58.0	THC	109.3	109.3	123.1	105.3	105.3	118.6	100.8	100.8	113.6	95.9	95.9	108.1	90.5	90.5	102.0	
			SHC	95.4	109.3	123.1	91.9	105.3	118.6	88.0	100.8	113.6	83.8	95.9	108.1	79.0	90.5	102.0	
			kW		6.0			6.9			8.0			9.1			10.2		
		62.0	THC	109.3	109.3	127.8	105.3	105.3	123.2	100.9	100.9	118.0	96.0	96.0	112.2	90.6	90.6	105.9	
			SHC	90.8	109.3	127.8	87.5	105.3	123.2	83.8	100.9	118.0	79.7	96.0	112.2	75.2	90.6	105.9	
			kW		6.0			6.9			8.0			9.1			10.2		
		67.0	THC	112.4	112.4	125.8	107.7	107.7	123.6	102.5	102.5	121.0	96.8	96.8	117.8	90.7	90.7	113.7	
			SHC	77.6	101.7	125.8	75.6	99.6	123.6	73.4	97.2	121.0	70.8	94.3	117.8	67.7	90.7	113.7	
			kW		6.0			7.0			8.0			9.1			10.2		
		72.0	THC	121.5	121.5	121.5	116.4	116.4	116.4	–	–	–	–	–	–	–	–	–	
			SHC	53.3	77.9	102.4	51.5	76.1	100.6	–	–	–	–	–	–	–	–	–	
			kW		6.1			7.0			–			–			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD14 - 40RUA14 **COMBINATION RATINGS** **SI**

				Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
1699 L/S	EAT (wb)	14.4	THC	34.2	34.2	38.5	33.0	33.0	37.2	31.7	31.7	35.7	30.2	30.2	34.0	28.5	28.5	32.1
			SHC	29.8	34.2	38.5	28.8	33.0	37.2	27.6	31.7	35.7	26.3	30.2	34.0	24.9	28.5	32.1
			kW		8.1			9.2			10.4			11.6			12.9	
		16.7	THC	34.8	34.8	38.3	33.4	33.4	37.5	31.9	31.9	36.6	30.2	30.2	35.3	28.5	28.5	33.3
			SHC	27.6	33.0	38.3	26.9	32.2	37.5	26.1	31.4	36.6	25.1	30.2	35.3	23.7	28.5	33.3
			kW		8.1			9.2			10.4			11.6			12.9	
		19.4	THC	37.5	37.5	37.5	36.0	36.0	36.0	34.3	34.3	34.3	32.4	32.4	32.4	30.3	30.3	30.3
			SHC	22.2	27.7	33.1	21.6	27.0	32.4	20.9	26.3	31.7	20.2	25.6	31.0	19.3	24.7	30.1
			kW		8.3			9.4			10.6			11.8			13.1	
		22.2	THC	40.7	40.7	40.7	38.8	38.8	38.8	37.0	37.0	37.0	35.1	35.1	35.1	32.9	32.9	32.9
			SHC	16.7	22.2	27.6	16.0	21.5	26.9	15.4	20.8	26.2	14.7	20.1	25.5	13.9	19.3	24.7
			kW		8.5			9.6			10.7			12.0			13.3	
		24.4	THC	–	43.6	43.6	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	17.7	23.3	–	–	–	–	–	–	–	–	–	–	–	–
			kW		8.7			–			–			–			–	
1982 L/S	EAT (wb)	14.4	THC	35.6	35.6	40.1	34.3	34.3	38.7	32.9	32.9	37.1	31.4	31.4	35.3	29.6	29.6	33.3
			SHC	31.1	35.6	40.1	30.0	34.3	38.7	28.8	32.9	37.1	27.4	31.4	35.3	25.8	29.6	33.3
			kW		8.2			9.3			10.5			11.7			13.0	
		16.7	THC	35.7	35.7	41.6	34.4	34.4	40.2	33.0	33.0	38.5	31.4	31.4	36.7	29.6	29.6	34.6
			SHC	29.5	35.6	41.6	28.5	34.4	40.2	27.4	33.0	38.5	26.1	31.4	36.7	24.6	29.6	34.6
			kW		8.2			9.3			10.5			11.7			13.0	
		19.4	THC	38.2	38.2	38.2	36.6	36.6	36.6	34.9	34.9	34.9	33.0	33.0	33.9	30.8	30.8	33.0
			SHC	23.6	29.8	36.1	22.9	29.2	35.4	22.3	28.5	34.7	21.5	27.7	33.9	20.6	26.8	33.0
			kW		8.4			9.4			10.6			11.8			13.1	
		22.2	THC	41.5	41.5	41.5	39.5	39.5	39.5	37.6	37.6	37.6	35.6	35.6	35.6	33.3	33.3	33.3
			SHC	17.3	23.5	29.8	16.6	22.8	29.1	15.9	22.2	28.4	15.2	21.4	27.7	14.4	20.6	26.9
			kW		8.6			9.6			10.8			12.0			13.3	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
2265 L/S	EAT (wb)	14.4	THC	36.7	36.7	41.4	35.4	35.4	39.9	33.9	33.9	38.2	32.3	32.3	36.4	30.5	30.5	34.3
			SHC	32.1	36.7	41.4	30.9	35.4	39.9	29.6	33.9	38.2	28.2	32.3	36.4	26.6	30.5	34.3
			kW		8.3			9.4			10.5			11.8			13.1	
		16.7	THC	36.8	36.8	43.0	35.4	35.4	41.4	34.0	34.0	39.7	32.3	32.3	37.8	30.5	30.5	35.6
			SHC	30.5	36.8	43.0	29.4	35.4	41.4	28.2	34.0	39.7	26.8	32.3	37.8	25.3	30.5	35.6
			kW		8.3			9.4			10.5			11.8			13.1	
		19.4	THC	38.7	38.7	39.0	37.1	37.1	38.2	35.3	35.3	37.5	33.4	33.4	36.7	31.2	31.2	35.7
			SHC	24.9	31.9	39.0	24.2	31.2	38.2	23.5	30.5	37.5	22.7	29.7	36.7	21.8	28.8	35.7
			kW		8.4			9.5			10.6			11.9			13.1	
		22.2	THC	42.1	42.1	42.1	39.9	39.9	39.9	38.0	38.0	38.0	36.0	36.0	36.0	–	–	–
			SHC	17.8	24.9	32.0	17.1	24.1	31.2	16.4	23.4	30.5	15.7	22.7	29.8	–	–	–
			kW															
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
2549 L/S	EAT (wb)	14.4	THC	37.7	37.7	42.4	36.3	36.3	40.9	34.8	34.8	39.2	33.1	33.1	37.3	31.2	31.2	35.1
			SHC	32.9	37.7	42.4	31.7	36.3	40.9	30.4	34.8	39.2	28.9	33.1	37.3	27.2	31.2	35.1
			kW		8.3			9.4			10.6			11.9			13.1	
		16.7	THC	37.7	37.7	44.1	36.3	36.3	42.4	34.8	34.8	40.7	33.1	33.1	38.7	31.2	31.2	36.5
			SHC	31.3	37.7	44.1	30.2	36.3	42.4	28.9	34.8	40.7	27.5	33.1	38.7	25.9	31.2	36.5
			kW		8.3			9.4			10.6			11.9			13.1	
		19.4	THC	39.2	39.2	41.6	37.5	37.5	40.9	35.7	35.7	40.1	33.7	33.7	39.2	31.5	31.5	38.0
			SHC	26.1	33.9	41.6	25.4	33.1	40.9	24.7	32.4	40.1	23.9	31.5	39.2	22.9	30.5	38.0
			kW		8.4			9.5			10.7			11.9			13.2	
		22.2	THC	42.6	42.6	42.6	40.3	40.3	40.3	38.4	38.4	38.4	–	–	–	–	–	–
			SHC	18.3	26.2	34.0	17.5	25.4	33.2	16.9	24.7	32.6	–	–	–	–	–	–
			kW		8.7			9.7		10.8				–			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
2832 L/S	EAT (wb)	14.4	THC	38.5	38.5	43.3	37.0	37.0	41.7	35.5	35.5	40.0	33.7	33.7	38.0	31.8	31.8	35.8
			SHC	33.6	38.5	43.3	32.3	37.0	41.7	31.0	35.5	40.0	29.5	33.7	38.0	27.8	31.8	35.8
			kW		8.4			9.5			10.7			11.9			13.2	
		16.7	THC	38.5	38.5	45.0	37.0	37.0	43.3	35.5	35.5	41.5	33.8	33.8	39.5	31.8	31.8	37.2
			SHC	32.0	38.5	45.0	30.8	37.0	43.3	29.5	35.5	41.5	28.0	33.8	39.5	26.4	31.8	37.2
			kW	8.4			9.5			10.7			11.9				13.2	
		19.4	THC	39.6	39.6	44.2	37.8	37.8	43.4	36.0	36.0	42.5	34.0	34.0	41.4	31.8	31.8	39.9
			SHC	27.3	35.7	44.2	26.5	35.0	43.4	25.8	34.1	42.5	24.9	33.1	41.4	23.8	31.8	39.9
			kW		8.5			9.5			10.7			11.9			13.2	
		22.2	THC	43.0	43.0	43.0	40.7	40.7	40.7	–	–	–	–	–	–	–	–	–
			SHC	18.8	27.4	36.0	18.0	26.6	35.3	–	–	–	–	–	–	–	–	–
			kW	8.7				9.7			–			–			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD14 - 40RUA14 **COMBINATION RATINGS** **ENGLISH**

				Ambient Temperature															
				85.0			95.0			105.0			115.0			125.0			
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
3600 cfm	EAT (wb)	58.0	THC	116.6	116.6	131.3	112.5	112.5	126.8	108.0	108.0	121.7	102.9	102.9	115.9	97.1	97.1	109.4	
			SHC	101.8	116.6	131.3	98.2	112.5	126.8	94.3	108.0	121.7	89.8	102.9	115.9	84.8	97.1	109.4	
			kW		8.1			9.2			10.4			11.6			12.9		
		62.0	THC	118.8	118.8	130.6	114.0	114.0	128.0	108.7	108.7	124.9	103.0	103.0	120.4	97.2	97.2	113.7	
			SHC	94.3	112.5	130.6	91.9	110.0	128.0	89.1	107.0	124.9	85.5	103.0	120.4	80.7	97.2	113.7	
			kW		8.1			9.2			10.4			11.6			12.9		
		67.0	THC	128.0	128.0	128.0	122.8	122.8	122.8	117.1	117.1	117.1	110.6	110.6	110.6	103.4	103.4	103.4	
			SHC	75.9	94.4	112.8	73.8	92.2	110.7	71.4	89.9	108.3	68.9	87.3	105.7	66.0	84.4	102.8	
			kW		8.3			9.4			10.6			11.8			13.1		
		72.0	THC	138.8	138.8	138.8	132.5	132.5	132.5	126.4	126.4	126.4	119.7	119.7	119.7	112.1	112.1	112.1	
			SHC	57.0	75.6	94.1	54.6	73.2	91.8	52.4	71.0	89.5	50.0	68.5	87.1	47.3	65.8	84.3	
			kW		8.5			9.6			10.7			12.0			13.3		
		76.0	THC	–	148.6	148.6	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	60.5	79.4	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		8.7			–			–			–			–		
4200 cfm	EAT (wb)	58.0	THC	121.4	121.4	136.8	117.1	117.1	131.9	112.3	112.3	126.6	107.0	107.0	120.6	100.9	100.9	113.7	
			SHC	106.0	121.4	136.8	102.2	117.1	131.9	98.1	112.3	126.6	93.4	107.0	120.6	88.1	100.9	113.7	
			kW		8.2			9.3			10.5			11.7			13.0		
		62.0	THC	121.8	121.8	141.8	117.3	117.3	137.1	112.5	112.5	131.5	107.1	107.1	125.2	101.0	101.0	118.1	
			SHC	100.8	121.3	141.8	97.4	117.3	137.1	93.4	112.5	131.5	88.9	107.1	125.2	83.9	101.0	118.1	
			kW		8.2			9.3			10.5			11.7			13.0		
		67.0	THC	130.4	130.4	130.4	124.9	124.9	124.9	119.1	119.1	119.1	112.5	112.5	115.8	105.0	105.0	112.6	
			SHC	80.5	101.8	123.1	78.3	99.6	120.8	76.0	97.2	118.5	73.4	94.6	115.8	70.4	91.5	112.6	
			kW		8.4			9.4			10.6			11.8			13.1		
		72.0	THC	141.6	141.6	141.6	134.7	134.7	134.7	128.4	128.4	128.4	121.5	121.5	121.5	113.7	113.7	113.7	
			SHC	59.0	80.3	101.7	56.5	77.8	99.2	54.2	75.6	97.0	51.8	73.1	94.5	49.0	70.4	91.7	
			kW		8.6			9.6			10.8			12.0			13.3		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
4800 cfm	EAT (wb)	58.0	THC	125.3	125.3	141.2	120.8	120.8	136.1	115.8	115.8	130.5	110.2	110.2	124.2	103.9	103.9	117.1	
			SHC	109.4	125.3	141.2	105.4	120.8	136.1	101.1	115.8	130.5	96.3	110.2	124.2	90.7	103.9	117.1	
			kW		8.3			9.4			10.5			11.8			13.1		
		62.0	THC	125.5	125.5	146.7	120.9	120.9	141.3	115.9	115.9	135.6	110.3	110.3	129.0	104.0	104.0	121.6	
			SHC	104.2	125.4	146.7	100.4	120.9	141.3	96.3	115.9	135.6	91.6	110.3	129.0	86.4	104.0	121.6	
			kW		8.3			9.4			10.5			11.8			13.1		
		67.0	THC	132.2	132.2	132.9	126.5	126.5	130.5	120.6	120.6	128.0	113.9	113.9	125.1	106.4	106.4	121.7	
			SHC	84.9	108.9	132.9	82.6	106.6	130.5	80.2	104.1	128.0	77.5	101.3	125.1	74.5	98.1	121.7	
			kW		8.4			9.5			10.6			11.9			13.1		
		72.0	THC	143.8	143.8	143.8	136.3	136.3	136.3	129.8	129.8	129.8	122.8	122.8	122.8	–	–	–	
			SHC	60.8	84.9	109.1	58.2	82.3	106.4	55.9	80.0	104.1	53.5	77.6	101.7	–	–	–	
			kW		8.6			9.7			10.8			12.1			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
5400 cfm	EAT (wb)	58.0	THC	128.5	128.5	144.8	123.8	123.8	139.5	118.7	118.7	133.8	112.9	112.9	127.2	106.4	106.4	119.9	
			SHC	112.2	128.5	144.8	108.1	123.8	139.5	103.6	118.7	133.8	98.6	112.9	127.2	92.9	106.4	119.9	
			kW		8.3			9.4			10.6			11.9			13.1		
		62.0	THC	128.6	128.6	150.4	123.9	123.9	144.8	118.8	118.8	138.9	113.0	113.0	132.1	106.4	106.4	124.5	
			SHC	106.8	128.6	150.4	102.9	123.9	144.8	98.7	118.8	138.9	93.8	113.0	132.1	88.4	106.4	124.5	
			kW		8.3			9.4			10.6			11.9			13.1		
		67.0	THC	133.7	133.7	142.1	127.8	127.8	139.5	121.8	121.8	136.9	115.0	115.0	133.7	107.5	107.5	129.8	
			SHC	89.1	115.6	142.1	86.7	113.1	139.5	84.2	110.6	136.9	81.4	107.6	133.7	78.1	103.9	129.8	
			kW		8.4			9.5			10.7			11.9			13.2		
		72.0	THC	145.3	145.3	145.3	137.6	137.6	137.6	130.9	130.9	130.9	–	–	–	–	–	–	
			SHC	62.5	89.3	116.1	59.8	86.6	113.4	57.5	84.3	111.1	–	–	–	–	–	–	
			kW		8.7			9.7			10.8			–			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
6000 cfm	EAT (wb)	58.0	THC	131.2	131.2	147.9	126.3	126.3	142.3	121.0	121.0	136.4	115.1	115.1	129.7	108.4	108.4	122.2	
			SHC	114.6	131.2	147.9	110.3	126.3	142.3	105.7	121.0	136.4	100.5	115.1	129.7	94.7	108.4	122.2	
			kW		8.4			9.5			10.7			11.9			13.2		
		62.0	THC	131.3	131.3	153.6	126.4	126.4	147.8	121.1	121.1	141.6	115.2	115.2	134.7	108.5	108.5	126.8	
			SHC	109.1	131.3	153.6	105.0	126.4	147.8	100.6	121.1	141.6	95.7	115.2	134.7	90.1	108.5	126.8	
			kW		8.4			9.5			10.7			11.9			13.2		
		67.0	THC	135.0	135.0	150.8	128.9	128.9	148.0	122.8	122.8	145.0	116.1	116.1	141.3	108.6	108.6	136.2	
			SHC	93.0	121.9	150.8	90.5	119.3	148.0	87.9	116.5	145.0	84.8	113.0	141.3	81.1	108.6	136.2	
			kW		8.5			9.5			10.7			11.9			13.2		
		72.0	THC	146.6	146.6	146.6	138.8	138.8	138.8	–	–	–	–	–	–	–	–	–	
			SHC	64.2	93.6	123.0	61.5	90.9	120.3	–	–	–	–	–	–	–	–	–	
			kW		8.7			9.7			–			–			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD16 - 40RUA16 **COMBINATION RATINGS** **SI**

				Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
2124 L/S	EAT (wb)	14.4	THC	44.1	44.1	49.7	42.6	42.6	48.0	40.9	40.9	46.1	39.2	39.2	44.2	37.3	37.3	42.0
			SHC	38.5	44.1	49.7	37.2	42.6	48.0	35.8	40.9	46.1	34.2	39.2	44.2	32.5	37.3	42.0
			kW		9.7			10.9			12.3			13.8			15.4	
		16.7	THC	45.3	45.3	49.0	43.4	43.4	48.0	41.4	41.4	46.9	39.4	39.4	45.4	37.3	37.3	43.6
			SHC	35.5	42.3	49.0	34.6	41.3	48.0	33.6	40.3	46.9	32.4	38.9	45.4	31.0	37.3	43.6
			kW		9.7			10.9			12.3			13.8			15.4	
		19.4	THC	49.2	49.2	49.2	47.1	47.1	47.1	44.9	44.9	44.9	42.6	42.6	42.6	40.0	40.0	40.0
			SHC	28.8	35.6	42.5	28.0	34.8	41.6	27.1	33.9	40.7	26.1	32.9	39.7	25.1	31.9	38.7
			kW		9.9			11.1			12.4			13.9			15.5	
		22.2	THC	53.3	53.3	53.3	51.1	51.1	51.1	48.8	48.8	48.8	46.2	46.2	46.2	43.5	43.5	43.5
			SHC	21.8	28.7	35.5	21.0	27.9	34.7	20.1	27.0	33.9	19.2	26.1	32.9	18.2	25.1	31.9
			kW		10.1			11.3			12.6			14.1			15.6	
		24.4	THC	–	56.7	56.7	–	54.5	54.5	–	52.0	52.0	–	–	–	–	–	–
			SHC	–	23.0	30.0	–	22.2	29.2	–	21.4	28.3	–	–	–	–	–	–
			kW		10.3			11.5			12.8			–			–	
2478 L/S	EAT (wb)	14.4	THC	46.1	46.1	52.0	44.5	44.5	50.1	42.8	42.8	48.2	40.9	40.9	46.0	38.8	38.8	43.7
			SHC	40.3	46.1	52.0	38.9	44.5	50.1	37.3	42.8	48.2	35.7	40.9	46.0	33.9	38.8	43.7
			kW		9.8			11.0			12.4			13.8			15.4	
		16.7	THC	46.5	46.5	53.3	44.7	44.7	51.7	42.8	42.8	50.0	40.9	40.9	47.8	38.8	38.8	45.4
			SHC	38.0	45.6	53.3	36.8	44.3	51.7	35.6	42.8	50.0	34.0	40.9	47.8	32.2	38.8	45.4
			kW		9.8			11.0			12.4			13.8			15.4	
		19.4	THC	50.2	50.2	50.2	48.1	48.1	48.1	45.8	45.8	45.8	43.3	43.3	43.5	40.7	40.7	42.4
			SHC	30.6	38.4	46.3	29.7	37.5	45.4	28.8	36.6	44.5	27.8	35.6	43.5	26.8	34.6	42.4
			kW		10.0			11.2			12.5			13.9			15.5	
		22.2	THC	54.3	54.3	54.3	52.1	52.1	52.1	49.6	49.6	49.6	47.0	47.0	47.0	44.2	44.2	44.2
			SHC	22.5	30.4	38.3	21.7	29.6	37.5	20.8	28.7	36.6	19.9	27.8	35.6	18.9	26.8	34.6
			kW		10.2			11.4			12.7			14.1			15.7	
		24.4	THC	–	57.8	57.8	–	55.4	55.4	–	–	–	–	–	–	–	–	–
			SHC	–	23.9	31.9	–	23.1	31.1	–	–	–	–	–	–	–	–	–
			kW		10.4			11.6			–			–			–	
2832 L/S	EAT (wb)	14.4	THC	47.8	47.8	53.8	46.1	46.1	51.9	44.2	44.2	49.8	42.2	42.2	47.6	40.0	40.0	45.1
			SHC	41.7	47.8	53.8	40.2	46.1	51.9	38.6	44.2	49.8	36.8	42.2	47.6	34.9	40.0	45.1
			kW		9.9			11.1			12.4			13.9			15.5	
		16.7	THC	47.8	47.8	55.9	46.1	46.1	53.9	44.3	44.3	51.7	42.2	42.2	49.4	40.0	40.0	46.8
			SHC	39.7	47.8	55.9	38.3	46.1	53.9	36.8	44.3	51.7	35.1	42.2	49.4	33.3	40.0	46.8
			kW		9.9			11.1			12.4			13.9			15.5	
		19.4	THC	50.9	50.9	50.9	48.8	48.8	49.0	46.4	46.4	48.1	43.9	43.9	47.0	41.2	41.2	45.8
			SHC	32.2	41.1	49.9	31.3	40.2	49.0	30.4	39.2	48.1	29.4	38.2	47.0	28.3	37.1	45.8
			kW		10.0			11.2			12.5			14.0			15.5	
		22.2	THC	55.1	55.1	55.1	52.8	52.8	52.8	50.3	50.3	50.3	47.6	47.6	47.6	44.7	44.7	44.7
			SHC	23.2	32.1	41.0	22.3	31.2	40.2	21.5	30.4	39.2	20.5	29.4	38.3	19.5	28.4	37.3
			kW		10.2			11.4			12.7			14.2			15.7	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
3186 L/S	EAT (wb)	14.4	THC	49.1	49.1	55.4	47.3	47.3	53.3	45.4	45.4	51.1	43.3	43.3	48.8	41.0	41.0	46.2
			SHC	42.9	49.1	55.4	41.3	47.3	53.3	39.6	45.4	51.1	37.8	43.3	48.8	35.8	41.0	46.2
			kW		9.9			11.1			12.5			13.9			15.5	
		16.7	THC	49.2	49.2	57.5	47.4	47.4	55.4	45.4	45.4	53.1	43.3	43.3	50.6	41.0	41.0	47.9
			SHC	40.8	49.2	57.5	39.3	47.4	55.4	37.7	45.4	53.1	36.0	43.3	50.6	34.1	41.0	47.9
			kW		9.9			11.1			12.5			13.9			15.5	
		19.4	THC	51.5	51.5	53.4	49.3	49.3	52.5	47.0	47.0	51.4	44.4	44.4	50.3	41.7	41.7	49.0
			SHC	33.8	43.6	53.4	32.9	42.7	52.5	31.9	41.7	51.4	30.9	40.6	50.3	29.7	39.4	49.0
			kW		10.0			11.2			12.6			14.0			15.6	
		22.2	THC	55.7	55.7	55.7	53.3	53.3	53.3	50.8	50.8	50.8	48.0	48.0	48.0	45.0	45.0	45.0
			SHC	23.8	33.7	43.6	23.0	32.9	42.7	22.1	32.0	41.9	21.1	31.0	40.9	20.1	30.0	39.8
			kW		10.3			11.4			12.8			14.2			15.7	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
3540 L/S	EAT (wb)	14.4	THC	50.2	50.2	56.6	48.4	48.4	54.5	46.4	46.4	52.3	44.2	44.2	49.8	41.8	41.8	47.1
			SHC	43.9	50.2	56.6	42.2	48.4	54.5	40.5	46.4	52.3	38.6	44.2	49.8	36.5	41.8	47.1
			kW		10.0			11.2			12.5			14.0			15.6	
		16.7	THC	50.3	50.3	58.8	48.4	48.4	56.6	46.4	46.4	54.2	44.2	44.2	51.7	41.8	41.8	48.9
			SHC	41.8	50.3	58.8	40.2	48.4	56.6	38.5	46.4	54.2	36.7	44.2	51.7	34.8	41.8	48.9
			kW		10.0			11.2			12.5			14.0			15.6	
		19.4	THC	52.0	52.0	56.7	49.8	49.8	55.7	47.4	47.4	54.5	44.8	44.8	53.3	42.1	42.1	51.7
			SHC	35.3	46.0	56.7	34.3	45.0	55.7	33.3	43.9	54.5	32.2	42.7	53.3	30.9	41.3	51.7
			kW		10.1			11.3			12.6			14.0			15.6	
		22.2	THC	56.1	56.1	56.1	53.7	53.7	53.7	51.2	51.2	51.2	–	–	–	–	–	–
			SHC	24.4	35.3	46.1	23.6	34.4	45.3	22.7	33.5	44.4	–	–	–	–	–	–
			kW		10.3			11.5			12.8			14.2			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD16 - 40RUA16 **COMBINATION RATINGS** **ENGLISH**

				Ambient Temperature															
				85.0			95.0			105.0			115.0			125.0			
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
4500 cfm	EAT (wb)	58.0	THC	150.4	150.4	169.5	145.3	145.3	163.7	139.7	139.7	157.4	133.7	133.7	150.7	127.1	127.1	143.2	
			SHC	131.3	150.4	169.5	126.8	145.3	163.7	122.0	139.7	157.4	116.7	133.7	150.7	111.0	127.1	143.2	
			kW		9.7			10.9			12.3			13.8			15.4		
		62.0	THC	154.4	154.4	167.2	148.0	148.0	163.8	141.4	141.4	160.1	134.4	134.4	155.0	127.2	127.2	148.8	
			SHC	121.2	144.2	167.2	118.0	140.9	163.8	114.7	137.4	160.1	110.5	132.8	155.0	105.7	127.2	148.8	
			kW		9.7			10.9			12.3			13.8			15.4		
		67.0	THC	167.7	167.7	167.7	160.7	160.7	160.7	153.3	153.3	153.3	145.2	145.2	145.2	136.6	136.6	136.6	
			SHC	98.3	121.6	144.9	95.4	118.7	142.0	92.4	115.7	138.9	89.1	112.4	135.6	85.6	108.9	132.1	
			kW		9.9			11.1			12.4			13.9			15.5		
		72.0	THC	181.8	181.8	181.8	174.4	174.4	174.4	166.5	166.5	166.5	157.8	157.8	157.8	148.5	148.5	148.5	
			SHC	74.4	97.8	121.2	71.7	95.1	118.5	68.7	92.1	115.5	65.5	88.9	112.3	62.1	85.5	108.8	
			kW		10.1			11.3			12.6			14.1			15.6		
		76.0	THC	–	193.5	193.5	–	185.8	185.8	–	177.4	177.4	–	–	–	–	–	–	
			SHC	–	78.4	102.4	–	75.8	99.7	–	72.9	96.7	–	–	–	–	–	–	
			kW		10.3			11.5			12.8			–			–		
5250 cfm	EAT (wb)	58.0	THC	157.4	157.4	177.4	151.8	151.8	171.1	145.9	145.9	164.4	139.4	139.4	157.1	132.3	132.3	149.1	
			SHC	137.4	157.4	177.4	132.6	151.8	171.1	127.4	145.9	164.4	121.7	139.4	157.1	115.5	132.3	149.1	
			kW		9.8			11.0			12.4			13.8			15.4		
		62.0	THC	158.7	158.7	181.7	152.4	152.4	176.5	146.0	146.0	170.7	139.5	139.5	163.1	132.4	132.4	154.9	
			SHC	129.7	155.7	181.7	125.7	151.1	176.5	121.3	146.0	170.7	115.9	139.5	163.1	110.0	132.4	154.9	
			kW		9.8			11.0			12.4			13.8			15.4		
		67.0	THC	171.2	171.2	171.2	164.0	164.0	164.0	156.2	156.2	156.2	147.9	147.9	148.3	139.0	139.0	144.6	
			SHC	104.3	131.1	157.9	101.3	128.1	154.9	98.2	125.0	151.8	94.9	121.6	148.3	91.3	118.0	144.6	
			kW		10.0			11.2			12.5			13.9			15.5		
		72.0	THC	185.3	185.3	185.3	177.6	177.6	177.6	169.4	169.4	169.4	160.5	160.5	160.5	150.7	150.7	150.7	
			SHC	76.8	103.7	130.7	74.0	100.9	127.9	71.0	98.0	124.9	67.9	94.7	121.6	64.4	91.3	118.1	
			kW		10.2			11.4			12.7			14.1			15.7		
		76.0	THC	–	197.1	197.1	–	189.1	189.1	–	–	–	–	–	–	–	–	–	
			SHC	–	81.5	109.0	–	78.8	106.2	–	–	–	–	–	–	–	–	–	
			kW		10.4			11.6			–			–			–		
6000 cfm	EAT (wb)	58.0	THC	163.0	163.0	183.7	157.2	157.2	177.1	150.8	150.8	170.0	144.0	144.0	162.3	136.5	136.5	153.8	
			SHC	142.4	163.0	183.7	137.2	157.2	177.1	131.7	150.8	170.0	125.7	144.0	162.3	119.2	136.5	153.8	
			kW		9.9			11.1			12.4			13.9			15.5		
		62.0	THC	163.2	163.2	190.8	157.3	157.3	183.9	151.0	151.0	176.5	144.1	144.1	168.5	136.6	136.6	159.7	
			SHC	135.6	163.2	190.8	130.6	157.3	183.9	125.4	151.0	176.5	119.7	144.1	168.5	113.5	136.6	159.7	
			kW		9.9			11.1			12.4			13.9			15.5		
		67.0	THC	173.8	173.8	173.8	166.4	166.4	167.3	158.4	158.4	164.0	149.9	149.9	160.3	140.7	140.7	156.4	
			SHC	109.9	140.1	170.3	106.9	137.1	167.3	103.7	133.8	164.0	100.3	130.3	160.3	96.6	126.5	156.4	
			kW		10.0			11.2			12.5			14.0			15.5		
		72.0	THC	187.9	187.9	187.9	180.0	180.0	180.0	171.6	171.6	171.6	162.4	162.4	162.4	152.5	152.5	152.5	
			SHC	79.0	109.4	139.8	76.2	106.6	137.0	73.2	103.6	133.9	70.0	100.3	130.7	66.6	96.9	127.2	
			kW		10.2			11.4			12.7			14.2			15.7		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
6750 cfm	EAT (wb)	58.0	THC	167.6	167.6	188.9	161.5	161.5	182.0	154.9	154.9	174.5	147.7	147.7	166.4	139.8	139.8	157.6	
			SHC	146.3	167.6	188.9	141.0	161.5	182.0	135.2	154.9	174.5	128.9	147.7	166.4	122.1	139.8	157.6	
			kW		9.9			11.1			12.5			13.9			15.5		
		62.0	THC	167.7	167.7	196.1	161.6	161.6	188.9	155.0	155.0	181.2	147.8	147.8	172.8	139.9	139.9	163.6	
			SHC	139.3	167.7	196.1	134.2	161.6	188.9	128.7	155.0	181.2	122.7	147.8	172.8	116.2	139.9	163.6	
			kW		9.9			11.1			12.5			13.9			15.5		
		67.0	THC	175.8	175.8	182.2	168.3	168.3	179.0	160.2	160.2	175.5	151.5	151.5	171.6	142.3	142.3	167.1	
			SHC	115.2	148.7	182.2	112.2	145.6	179.0	108.9	142.2	175.5	105.4	138.5	171.6	101.5	134.3	167.1	
			kW		10.0			11.2			12.6			14.0			15.6		
		72.0	THC	189.9	189.9	189.9	181.9	181.9	181.9	173.2	173.2	173.2	163.9	163.9	163.9	153.7	153.7	153.7	
			SHC	81.2	114.9	148.7	78.4	112.1	145.8	75.3	109.1	142.8	72.1	105.8	139.5	68.6	102.3	135.9	
			kW		10.3			11.4			12.8			14.2			15.7		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
7500 cfm	EAT (wb)	58.0	THC	171.4	171.4	193.2	165.1	165.1	186.0	158.2	158.2	178.3	150.8	150.8	169.9	142.7	142.7	160.7	
			SHC	149.7	171.4	193.2	144.1	165.1	186.0	138.1	158.2	178.3	131.6	150.8	169.9	124.6	142.7	160.7	
			kW		10.0			11.2			12.5			14.0			15.6		
		62.0	THC	171.5	171.5	200.6	165.2	165.2	193.1	158.3	158.3	185.1	150.9	150.9	176.4	142.7	142.7	166.9	
			SHC	142.5	171.5	200.6	137.2	165.2	193.1	131.5	158.3	185.1	125.3	150.9	176.4	118.6	142.7	166.9	
			kW		10.0			11.2			12.5			14.0			15.6		
		67.0	THC	177.5	177.5	193.4	169.8	169.8	190.0	161.7	161.7	186.1	153.0	153.0	181.7	143.7	143.7	176.3	
			SHC	120.3	156.8	193.4	117.1	153.5	190.0	113.7	149.9	186.1	110.0	145.8	181.7	105.6	140.9	176.3	
			kW		10.1			11.3			12.6			14.0			15.6		
		72.0	THC	191.5	191.5	191.5	183.3	183.3	183.3	174.6	174.6	174.6	165.0	165.0	165.0	–	–	–	
			SHC	83.2	120.3	157.3	80.4	117.4	154.5	77.4	114.4	151.4	74.1	111.1	148.1	–	–	–	
			kW		10.3			11.5			12.8			14.2			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD25 - 40RUA25 **COMBINATION RATINGS** **SI**

				Ambient Temperature													
				29.4			35.0			40.6			46.1			51.7	
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)	
				23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4
2832 L/S	EAT (wb)	14.4	THC	58.3	58.3	65.7	56.2	56.2	63.3	54.0	54.0	60.8	51.5	51.5	58.0	48.7	48.7	54.9
			SHC	50.9	58.3	65.7	49.1	56.2	63.3	47.1	54.0	60.8	44.9	51.5	58.0	42.5	48.7	54.9
			kW	11.6			13.0			14.5			16.3			18.3		
		16.7	THC	59.8	59.8	64.9	57.3	57.3	63.6	54.5	54.5	62.0	51.7	51.7	59.8	48.7	48.7	57.0
			SHC	47.0	56.0	64.9	45.8	54.7	63.6	44.4	53.2	62.0	42.6	51.2	59.8	40.5	48.7	57.0
			kW	11.7			13.0			14.6			16.3			18.3		
		19.4	THC	65.4	65.4	65.4	62.5	62.5	62.5	59.4	59.4	59.4	56.0	56.0	56.0	52.3	52.3	52.3
			SHC	38.3	47.4	56.4	37.1	46.2	55.2	35.8	44.9	53.9	34.5	43.5	52.5	33.0	42.0	51.0
			kW		11.9			13.3			14.6			16.6			18.5	
		22.2	THC	71.6	71.6	71.6	68.4	68.4	68.4	65.0	65.0	65.0	61.3	61.3	61.3	57.2	57.2	57.2
			SHC	29.3	38.4	47.5	28.1	37.2	46.3	26.8	35.9	45.0	25.4	34.5	43.6	24.0	33.0	42.1
			kW		12.3			13.6			15.1			16.9		18.8		
		24.4	THC	–	76.8	76.8	–	73.4	73.4	–	69.7	69.7	–	–	–	–	–	–
			SHC	–	31.1	40.6	–	29.9	39.3	–	28.6	38.0	–	–	–	–	–	–
			kW		12.6			13.9			15.4			–			–	
3304 L/S	EAT (wb)	14.4	THC	61.1	61.1	68.8	58.9	58.9	66.4	56.4	56.4	63.6	53.7	53.7	60.6	50.7	50.7	57.2
			SHC	53.3	61.1	68.8	51.4	58.9	66.4	49.3	56.4	63.6	46.9	53.7	60.6	44.3	50.7	57.2
			kW		11.7			13.1			14.7			16.5		18.4		
		16.7	THC	61.7	61.7	70.5	59.1	59.1	68.5	56.5	56.5	66.0	53.8	53.8	62.9	50.8	50.8	59.4
			SHC	50.4	60.4	70.5	48.8	58.6	68.5	46.9	56.5	66.0	44.7	53.8	62.9	42.2	50.8	59.4
			kW		11.8			13.1			14.7			16.5			18.4	
		19.4	THC	67.0	67.0	67.0	64.0	64.0	64.0	60.7	60.7	60.7	57.2	57.2	57.5	53.3	53.3	55.9
			SHC	40.7	51.1	61.5	39.5	49.9	60.3	38.2	48.5	58.9	36.7	47.1	57.5	35.2	45.5	55.9
			kW		12.0			13.4			14.9			16.6			18.6	
		22.2	THC	73.2	73.2	73.2	69.9	69.9	69.9	66.3	66.3	66.3	62.4	62.4	62.4	58.2	58.2	58.2
			SHC	30.3	40.8	51.3	29.1	39.5	50.0	27.8	38.2	48.7	26.4	36.8	47.2	24.9	35.3	45.7
			kW		12.4			13.7			15.2			16.9			18.8	
		24.4	THC	–	78.5	78.5	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	32.4	43.2	–	–	–	–	–	–	–	–	–	–	–	–
			kW		12.7			–			–			–			–	
3776 L/S	EAT (wb)	14.4	THC	63.4	63.4	71.5	61.0	61.0	68.8	58.4	58.4	65.8	55.5	55.5	62.6	52.4	52.4	59.0
			SHC	55.4	63.4	71.5	53.3	61.0	68.8	51.0	58.4	65.8	48.5	55.5	62.6	45.7	52.4	59.0
			kW		11.9			13.2			14.8			16.6			18.5	
		16.7	THC	63.5	63.5	74.2	61.1	61.1	71.4	58.5	58.5	68.4	55.6	55.6	65.0	52.4	52.4	61.3
			SHC	52.7	63.5	74.2	50.7	61.1	71.4	48.6	58.5	68.4	46.2	55.6	65.0	43.6	52.4	61.3
			kW		11.9			13.2			14.8			16.6			18.5	
		19.4	THC	68.1	68.1	68.1	65.0	65.0	65.1	61.6	61.6	63.7	58.0	58.0	62.1	54.0	54.0	60.4
			SHC	42.9	54.7	66.4	41.7	53.4	65.1	40.3	52.0	63.7	38.8	50.5	62.1	37.3	48.8	60.4
			kW		12.1			13.4			15.0			16.7			18.6	
		22.2	THC	74.5	74.5	74.5	71.0	71.0	71.0	67.3	67.3	67.3	63.3	63.3	63.3	59.0	59.0	59.0
			SHC	31.2	43.1	54.8	30.0	41.8	53.6	28.7	40.4	52.2	27.3	39.0	50.7	25.8	37.5	49.2
			kW		12.4			13.8			15.3			17.0			18.9	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
4248 L/S	EAT (wb)	14.4	THC	65.4	65.4	73.7	62.8	62.8	70.8	60.1	60.1	67.7	57.1	57.1	64.3	53.8	53.8	60.6
			SHC	57.1	65.4	73.7	54.9	62.8	70.8	52.5	60.1	67.7	49.8	57.1	64.3	46.9	53.8	60.6
			kW		12.0			13.3			14.9			16.6			18.6	
		16.7	THC	65.4	65.4	76.5	62.9	62.9	73.5	60.1	60.1	70.3	57.1	57.1	66.8	53.8	53.8	62.9
			SHC	54.3	65.4	76.5	52.2	62.9	73.5	49.9	60.1	70.3	47.5	57.1	66.8	44.7	53.8	62.9
			kW		12.0			13.3			14.9			16.6			18.6	
		19.4	THC	69.1	69.1	71.0	65.9	65.9	69.7	62.4	62.4	68.1	58.7	58.7	66.4	54.7	54.7	64.5
			SHC	45.1	58.1	71.0	43.8	56.7	69.7	42.4	55.2	68.1	40.8	53.6	66.4	39.1	51.8	64.5
			kW		12.2			13.5			15.0			16.7			18.7	
		22.2	THC	75.5	75.5	75.5	72.0	72.0	72.0	68.1	68.1	68.1	64.0	64.0	64.0	–	–	–
			SHC	32.1	45.2	58.3	30.9	43.9	57.0	29.5	42.6	55.6	28.1	41.1	54.1	–	–	–
			kW		12.5			13.8			15.3			17.0			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	
4719 L/S	EAT (wb)	14.4	THC	67.0	67.0	75.5	64.4	64.4	72.6	61.5	61.5	69.3	58.4	58.4	65.8	54.9	54.9	61.8
			SHC	58.5	67.0	75.5	56.2	64.4	72.6	53.7	61.5	69.3	51.0	58.4	65.8	47.9	54.9	61.8
			kW		12.1			13.4			15.0			16.7			18.7	
		16.7	THC	67.1	67.1	78.4	64.4	64.4	75.4	61.5	61.5	72.0	58.4	58.4	68.3	54.9	54.9	64.2
			SHC	55.7	67.1	78.4	53.5	64.4	75.4	51.1	61.5	72.0	48.5	58.4	68.3	45.6	54.9	64.2
			kW		12.1			13.4			15.0			16.7			18.7	
		19.4	THC	69.9	69.9	75.4	66.6	66.6	74.0	63.1	63.1	72.3	59.3	59.3	70.4	55.3	55.3	67.9
			SHC	47.1	61.3	75.4	45.7	59.8	74.0	44.3	58.3	72.3	42.6	56.5	70.4	40.7	54.3	67.9
			kW		12.2			13.5			15.1			16.8			18.7	
		22.2	THC	76.3	76.3	76.3	72.7	72.7	72.7	68.7	68.7	68.7	–	–	–	–	–	–
			SHC	33.0	47.3	61.7	31.7	46.0	60.3	30.3	44.6	58.9	–	–	–	–	–	–
			kW		12.6			13.9			15.4			–			–	
		24.4	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			kW		–			–			–			–			–	

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

38AUD25 - 40RUA25 **COMBINATION RATINGS** **ENGLISH**

				Ambient Temperature															
				85.0			95.0			105.0			115.0			125.0			
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
				75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
6000 cfm	EAT (wb)	58.0	THC	198.8	198.8	224.1	191.8	191.8	216.1	184.1	184.1	207.4	175.6	175.6	197.9	166.1	166.1	187.2	
			SHC	173.6	198.8	224.1	167.5	191.8	216.1	160.7	184.1	207.4	153.3	175.6	197.9	145.1	166.1	187.2	
			kW		11.6			13.0			14.5			16.3			18.3		
		62.0	THC	204.2	204.2	221.5	195.5	195.5	216.9	186.1	186.1	211.6	176.5	176.5	204.0	166.3	166.3	194.5	
			SHC	160.5	191.0	221.5	156.2	186.5	216.9	151.4	181.5	211.6	145.3	174.7	204.0	138.1	166.3	194.5	
			kW		11.7			13.0			14.6			16.3			18.3		
		67.0	THC	223.1	223.1	223.1	213.4	213.4	213.4	202.7	202.7	202.7	191.2	191.2	191.2	178.5	178.5	178.5	
			SHC	130.8	161.7	192.6	126.7	157.6	188.4	122.3	153.2	184.0	117.6	148.4	179.2	112.5	143.3	174.1	
			kW		11.9			13.3			14.6			16.6			18.5		
		72.0	THC	244.3	244.3	244.3	233.5	233.5	233.5	221.8	221.8	221.8	209.1	209.1	209.1	195.3	195.3	195.3	
			SHC	99.9	131.0	162.2	95.9	126.9	158.0	91.5	122.5	153.6	86.8	117.8	148.8	81.8	112.7	143.7	
			kW		12.3			13.6			15.1			16.9			18.8		
		76.0	THC	–	262.2	262.2	–	250.5	250.5	–	237.8	237.8	–	–	–	–	–	–	
			SHC	–	106.2	138.4	–	102.1	134.2	–	97.7	129.6	–	–	–	–	–	–	
			kW		12.6			13.9			15.4			–			–		
7000 cfm	EAT (wb)	58.0	THC	208.5	208.5	234.9	200.9	200.9	226.4	192.5	192.5	216.9	183.3	183.3	206.6	173.1	173.1	195.1	
			SHC	182.0	208.5	234.9	175.4	200.9	226.4	168.1	192.5	216.9	160.1	183.3	206.6	151.1	173.1	195.1	
			kW		11.7			13.1			14.7			16.5		18.4			
		62.0	THC	210.4	210.4	240.6	201.7	201.7	233.7	192.7	192.7	225.3	183.5	183.5	214.6	173.3	173.3	202.6	
			SHC	171.9	206.2	240.6	166.4	200.1	233.7	160.0	192.7	225.3	152.4	183.5	214.6	143.9	173.3	202.6	
			kW		11.8			13.1			14.7			16.5			18.4		
		67.0	THC	228.5	228.5	228.5	218.2	218.2	218.2	207.0	207.0	207.0	195.0	195.0	196.1	181.9	181.9	190.6	
			SHC	138.9	174.4	210.0	134.7	170.2	205.7	130.2	165.6	201.1	125.3	160.7	196.1	120.0	155.3	190.6	
			kW		12.0			13.4			14.9			16.6			18.6		
		72.0	THC	249.9	249.9	249.9	238.6	238.6	238.6	226.3	226.3	226.3	213.0	213.0	213.0	198.6	198.6	198.6	
			SHC	103.4	139.1	174.9	99.2	134.9	170.6	94.8	130.4	166.1	90.0	125.6	161.2	84.9	120.4	155.9	
			kW		12.4			13.7			15.2			16.9			18.8		
		76.0	THC	–	268.0	268.0	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	110.5	147.3	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		12.7			–			–			–			–		
8000 cfm	EAT (wb)	58.0	THC	216.4	216.4	243.8	208.2	208.2	234.7	199.3	199.3	224.6	189.5	189.5	213.6	178.7	178.7	201.4	
			SHC	188.9	216.4	243.8	181.8	208.2	234.7	174.0	199.3	224.6	165.5	189.5	213.6	156.0	178.7	201.4	
			kW		11.9			13.2			14.8			16.6			18.5		
		62.0	THC	216.6	216.6	253.3	208.4	208.4	243.7	199.5	199.5	233.3	189.7	189.7	221.8	178.8	178.8	209.1	
			SHC	179.9	216.6	253.3	173.1	208.4	243.7	165.7	199.5	233.3	157.6	189.7	221.8	148.6	178.8	209.1	
			kW		11.9			13.2			14.8			16.6			18.5		
		67.0	THC	232.5	232.5	232.5	221.8	221.8	222.2	210.3	210.3	217.3	197.9	197.9	212.0	184.4	184.4	206.0	
			SHC	146.5	186.6	226.6	142.2	182.2	222.2	137.6	177.4	217.3	132.5	172.2	212.0	127.1	166.5	206.0	
			kW		12.1			13.4			15.0			16.7			18.6		
		72.0	THC	254.2	254.2	254.2	242.4	242.4	242.4	229.7	229.7	229.7	216.0	216.0	216.0	201.2	201.2	201.2	
			SHC	106.6	146.9	187.1	102.4	142.6	182.8	97.9	138.0	178.1	93.0	133.1	173.1	87.9	127.8	167.7	
			kW		12.4			13.8			15.3			17.0			18.9		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
9000 cfm	EAT (wb)	58.0	THC	223.0	223.0	251.3	214.4	214.4	241.6	205.0	205.0	231.0	194.7	194.7	219.4	183.4	183.4	206.6	
			SHC	194.7	223.0	251.3	187.2	214.4	241.6	179.0	205.0	231.0	170.0	194.7	219.4	160.1	183.4	206.6	
			kW		12.0			13.3			14.9			16.6			18.6		
		62.0	THC	223.2	223.2	261.0	214.6	214.6	250.9	205.2	205.2	239.9	194.9	194.9	227.9	183.5	183.5	214.5	
			SHC	185.4	223.2	261.0	178.2	214.6	250.9	170.4	205.2	239.9	161.9	194.9	227.9	152.4	183.5	214.5	
			kW		12.0			13.3			14.9			16.6			18.6		
		67.0	THC	235.8	235.8	242.4	224.8	224.8	237.7	213.0	213.0	232.5	200.3	200.3	226.7	186.6	186.6	220.0	
			SHC	153.8	198.1	242.4	149.3	193.5	237.7	144.5	188.5	232.5	139.3	183.0	226.7	133.4	176.7	220.0	
			kW		12.2			13.5			15.0			16.7			18.7		
		72.0	THC	257.6	257.6	257.6	245.5	245.5	245.5	232.4	232.4	232.4	218.4	218.4	218.4	–	–	–	
			SHC	109.6	154.3	198.9	105.4	149.9	194.5	100.8	145.2	189.7	95.9	140.2	184.6	–	–	–	
			kW		12.5			13.8			15.3			17.0			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		
10,000 cfm	EAT (wb)	58.0	THC	228.7	228.7	257.7	219.7	219.7	247.6	209.8	209.8	236.5	199.1	199.1	224.4	187.3	187.3	211.0	
			SHC	199.7	228.7	257.7	191.8	219.7	247.6	183.2	209.8	236.5	173.9	199.1	224.4	163.5	187.3	211.0	
			kW		12.1			13.4			15.0			16.7			18.7		
		62.0	THC	228.8	228.8	267.6	219.8	219.8	257.1	210.0	210.0	245.5	199.2	199.2	233.0	187.4	187.4	219.1	
			SHC	190.1	228.8	267.6	182.6	219.8	257.1	174.4	210.0	245.5	165.5	199.2	233.0	155.7	187.4	219.1	
			kW		12.1			13.4			15.0			16.7			18.7		
		67.0	THC	238.5	238.5	257.4	227.3	227.3	252.4	215.2	215.2	246.7	202.4	202.4	240.1	188.7	188.7	231.8	
			SHC	160.6	209.0	257.4	156.0	204.2	252.4	151.0	198.8	246.7	145.4	192.7	240.1	138.9	185.3	231.8	
			kW		12.2			13.5			15.1			16.8			18.7		
		72.0	THC	260.3	260.3	260.3	247.9	247.9	247.9	234.5	234.5	234.5	–	–	–	–	–	–	
			SHC	112.5	161.4	210.4	108.2	157.0	205.9	103.5	152.3	201.0	–	–	–	–	–	–	
			kW		12.6			13.9			15.4			–			–		
		76.0	THC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			SHC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
			kW		–			–			–			–			–		

LEGEND:

– = Do not operate
EAT(wb) = Entering air temp (wet bulb)
SHC = Sensible heat capacity (Gross)
EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second
kW = Compressor kilowatts
THC = Total heat capacity (Gross)
Cfm = Cubic feet per minute (supply air)

ELECTRICAL DATA

38AUZ07 COOLING 50 Hz

38AUZ07							WITHOUT PWRD C.O.		WITH PWRD C.O.	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		OFM (ea)		MCA	Fuse	MCA	Fuse
	MIN	MAX	RLA	LRA	WATTS	FLA				
400–3–50	380	420	9.7	64	270	0.7	13.5	20	15.9	25

38AUZ08 COOLING 50 Hz

38AUZ08							WITHOUT PWRD C.O.		WITH PWRD C.O.	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		OFM (ea)					
	MIN	MAX	RLA	LRA	WATTS	FLA	MCA	Fuse	MCA	Fuse
400–3–50	380	420	12.2	101	270	0.7	16.7	25	19.0	30

38AUD12 COOLING 50 Hz

38AUD12									WITHOUT PWRD C.O.		WITH PWRD C.O.	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM (ea)					
	MIN	MAX	RLA	LRA	RLA	LRA	WATTS	FLA	MCA	Fuse	MCA	Fuse
400–3–50	380	420	7.8	51.5	7.8	51.5	270	0.7	19.0	25	21.3	30

38AUD14 COOLING 50 Hz

38AUD14									WITHOUT PWRD C.O.		WITH PWRD C.O.	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM (ea)					
	MIN	MAX	RLA	LRA	RLA	LRA	WATTS	FLA	MCA	Fuse	MCA	Fuse
400–3–50	380	420	10.6	74	10.6	74	270	0.7	25.3	30	27.6	30

38AUD16 COOLING 50 Hz

38AUD16									POWER SUPPLY		DISCONNECT SIZE	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM					
	Min	Max	RLA	LRA	RLA	LRA	Qty	FLA (ea)	MCA	MOCP	FLA	LRA
400–3–50	360	440	12.2	101	12.2	101	3	0.7	29.6	40	30	208

38AUD25 COOLING 50 Hz

38AUD24									POWER SUPPLY		DISCONNECT SIZE	
V–Ph–Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM					
	Min	Max	RLA	LRA	RLA	LRA	Qty	FLA (ea)	MCA	MOCP	FLA	LRA
400–3–50	360	440	16.7	111	16.7	111	4	0.7	40.4	50	42	230

APPLICATION DATA

Operating limits

Maximum outdoor temperature . . . . . 125°F

Minimum return-air temperature (40RUA) . . . . . 55°F

Maximum return-air temperature (40RUA) . . . . . 95°F

Range of acceptable saturation suction temperature . . . . . 20 to 50°F

Maximum discharge temperature . . . . . 275°F

Minimum discharge superheat . . . . . 60°F

NOTES:

1. Select air handler at no less than 300 cfm/ton (nominal condensing unit capacity).
2. Total combined draw of the field-supplied liquid line solenoid valve and air handler fan contactor must not exceed 22 va. If the specified va must be exceeded, use a remote relay to control the load.

MINIMUM OUTDOOR-AIR OPERATING TEMPERATURE

UNIT 38AU	MINIMUM OUTDOOR TEMP (°F)	
	Std	With MotorMaster I® Control†
Z07	35	–20
Z08	35	
D12	35	
D14	35	
D16	35	
D25	35	

† Wind baffles (field-supplied and field-installed) are recommended for all units with MotorMaster I® control. Refer to Low Ambient Temperature Control Installation Instructions for additional information.

Refrigerant piping

IMPORTANT: Do not bury refrigerant piping underground.

It is recommended that the refrigerant piping for all commercial split systems include a liquid line solenoid valve, a liquid line filter drier and a sight glass.

For refrigerant lines longer than 75 lineal ft, a liquid line solenoid valve installed at the **indoor** unit and a suction accumulator are required. Refer to the Refrigerant Specialties Part Numbers table.

REFRIGERANT SPECIALTIES PART NUMBERS

LIQUID LINE SIZE (in.)	LIQUID LINE SOLENOID VALVE (LLSV)	LLSV COIL	SIGHT GLASS
3/8	EF680033	EF680037	KM680008
1/2	EF680035	EF680037	KM680004
5/8	EF680036	EF680037	KM680005

NOTE: 38AUD units require TWO sets of parts.

38AUZ 07-08 PIPING RECOMMENDATIONS (SINGLE-CIRCUIT UNIT)

R–410A	Equivalent Length									
	meter	0–12		12–23		23–34		34–46		46–57	
	feet	0–38		38–75		75–113		113–150		150–188	
Model	Linear Length										
	meter	0–7.5		7.5–15		15–23		23–30		30–38	
	feet	0–25		25–50		50–75		75–100		100–125	
38AUZ*07	Liquid Line	3/8		3/8	1/2	3/8	1/2	3/8	1/2	3/8	1/2
	Max Lift										
	SI (m)										
	Novation	7.5		15		16	23	9	29	10	34
	RTPF	7.5		15		19	23	12	30	11	38
	EN (ft)										
	Novation	25		50		53	75	34	97	33	112
	RTPF	25		50		63	75	42	100	38	125
	Suction Line	7/8	7/8	7/8		7/8		7/8		1–1/8	
	Charge										
	SI (kg)										
	Novation	3.8		4.4		4.9	5.9	5.4	6.8	6.1	7.9
	RTPF	6.4		7.0		7.4	8.5	7.9	9.3	8.7	10.4
	EN (lbs)										
	Novation	8.4		9.8		10.8	13.1	11.8	14.9	13.5	17.4
	RTPF	14.0		15.4		16.4	18.7	17.4	20.5	19.1	23.0
38AUZ*08	Liquid Line	1/2		1/2	5/8	1/2	5/8	1/2	5/8	1/2	5/8
	Max Lift										
	SI (m)										
	Novation	7.5		9	11	7	10	DNU	10	10	16
	RTPF	7.5		15	NR	23	NR	27	30	18	38
	EN (ft)										
	Novation	25		30	38	24	36	DNU	35	33	53
	RTPF	25		50	NR	75	NR	89	100	62	125
	Suction Line	7/8		7/8		1–1/8		1–1/8		1–1/8	
	Charge										
	SI (kg)										
	Novation	5.5		6.3	7.2	7.4	8.6	DNU	9.9	9.1	11.2
	RTPF	8.6		9.4	NR	10.4	NR	11.3	13.0	12.2	14.3
	EN (lbs)										
	Novation	12.2		13.9	15.8	16.2	19.0	DNU	21.9	20.0	24.8
	RTPF	19.0		20.7	NR	23.0	NR	24.9	28.7	26.8	31.6

Legend:

Equivalent Length – Equivalent tubing length, including effects of refrigeration specialties devices

Linear Length – Linear tubing length, feet

Liquid Line – Tubing size, inches OD.

Max Lift – Maximum liquid lift (indoor unit ABOVE outdoor unit only), at maximum permitted liquid line pressure drop
- Linear Length Less than 30 m (100 ft): Minimum 1.1° C (2.0° F) subcooling entering TXV
- Linear Length Greater than 30 m (100 ft): Minimum 0.3° C (0.5° F) subcooling entering TXV

Suction Line – Tube size, inches OD

Charge – Charge Quantity, lbs. Calculated for both liquid line sizes (where applicable), but only with larger suction line size (where applicable)

DNU – Do Not Use (pressure drop exceeds available subcooling in this model)

NR – Not Recommended (use smaller liquid tube size)

SI – Metric units of measure

EN – English units of measure (I–P)

NOTE: For applications with equivalent length greater than 57 m (188 ft) and/or linear length greater than 38 m (125 ft), contact your local Carrier representative.

38AUD 12-14 PIPING RECOMMENDATIONS (TWO-CIRCUIT UNIT)

NOTE: 38AUD requires TWO sets of refrigeration piping

R–410A	Equivalent Length									
	meter	**0–12**	**12–23**		**23–34**		**34–46**		**46–57**	
	feet	**0–38**	**38–75**		**75–113**		**113–150**		**150–188**	
Model	Linear Length									
	meter	0–7.5	7.5–15		15–23		23–30		30–38	
	feet	0–25	25–50		50–75		75–100		100–125	
38AUD*12	Liquid Line	3/8	3/8		3/8	1/2	3/8	1/2	3/8	1/2
	Max Lift									
	SI (m)									
	Novation	7.5	15		15	23	10	24	13	29
	RTPF	7.5	15		15	23	10	27	11	32
	EN (ft)									
	Novation	25	50		50	75	36	79	44	96
	RTPF	25	50		50	75	36	89	39	106
	Suction Line	7/8	7/8		7/8		7/8		1–1/8	
	Charge									
	SI (kg)									
	Novation	3.3	3.8		4.2	5.3	4.7	6.1	5.1	6.9
	RTPF	4.9	5.4		5.8	6.9	6.3	7.7	6.8	8.6
	EN (lbs)									
	Novation	7.3	8.3		9.3	11.6	10.3	13.4	11.3	15.2
	RTPF	10.9	11.9		12.9	15.2	13.9	17.0	14.9	18.8
38AUD*14	Liquid Line	3/8	1/2	5/8	1/2	5/8	1/2	5/8	1/2	5/8
	Max Lift									
	SI (m)									
	Novation	7.5	13	15	12	14	11	14	17	20
	EN (ft)									
	Novation	25	45	50	42	49	39	48	56	68
	Suction Line	7/8	7/8		7/8		1–1/8		1–1/8	
	Charge									
	SI (kg)									
	Novation	4.6	5.8	6.6	6.6	7.8	7.6	10.7	9.4	12.0
	EN (lbs)									
	Novation	10.1	12.7	14.6	14.5	17.3	16.8	23.5	20.7	26.4

Legend:

Equivalent Length – Equivalent tubing length, including effects of refrigeration specialties devices

Linear Length – Linear tubing length, feet

Liquid Line – Tubing size, inches OD.

Max Lift – Maximum liquid lift (indoor unit ABOVE outdoor unit only), at maximum permitted liquid line pressure drop
- Linear Length Less than 30 m (100 ft): Minimum 1.1° C (2.0° F) subcooling entering TXV
- Linear Length Greater than 30 m (100 ft): Minimum 0.3° C (0.5° F) subcooling entering TXV

Suction Line – Tube size, inches OD

Charge – Charge Quantity, lbs. Calculated for both liquid line sizes (where applicable), but only with larger suction line size (where applicable)

DNU – Do Not Use (pressure drop exceeds available subcooling in this model)

NR – Not Recommended (use smaller liquid tube size)

SI – Metric units of measure

EN – English units of measure (I–P)

NOTE: For applications with equivalent length greater than 57 m (188 ft) and/or linear length greater than 38 m (125 ft), contact your local Carrier representative.

38AUD 16-25 PIPING RECOMMENDATIONS (TWO-CIRCUIT UNIT)

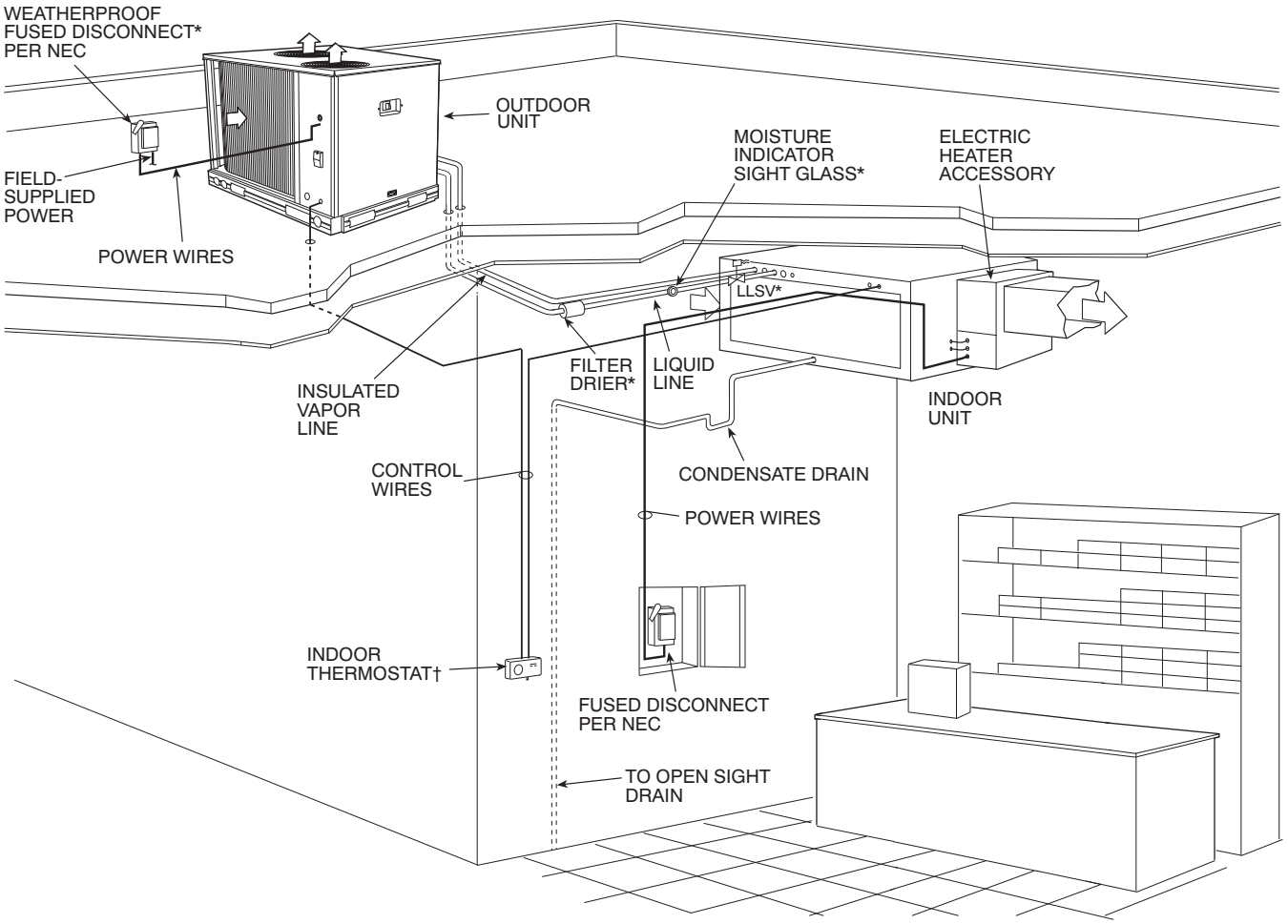
NOTE: 38AUD requires TWO sets of refrigeration piping

R–410A		Equivalent Length									
	meter	0–12		12–23		23–34		34–46		46–57	
	feet	0–38		38–75		75–113		113–150		150–188	
Model	Linear Length										
	meter	0–7.5		7.5–15		15–23		23–30		30–38	
	feet	0–25		25–50		50–75		75–100		100–125	
38AUD*16	Liquid Line	3/8	1/2	3/8	1/2	3/8	1/2	3/8	1/2	1/2	
	Max Lift										
	SI (m)										
	Novation	7.5	NR	15	NR	21	23	13	30	38	
	RTPF	DNU	7.5	DNU	15	DNU	23	DNU	30	36	
	EN (ft)										
	Novation	25	NR	50	NR	71	75	43	100	125	
	RTPF	DNU	25	DNU	50	DNU	75	DNU	100	119	
	Suction Line	7/8		1–1/8		1–1/8		1–1/8		1–1/8	
	Charge										
	SI (kg)										
	Novation	5.8	NR	6.3	NR	7.0	8.0	7.5	8.9	9.8	
	RTPF	DNU	9.8	DNU	10.7	DNU	11.6	DNU	12.4	13.3	
	EN (lbs)										
	Novation	12.9	NR	13.9	NR	15.4	17.7	16.5	19.6	21.6	
	RTPF	DNU	21.7	DNU	23.6	DNU	25.5	DNU	27.4	29.3	
38AUD*25	Liquid Line	1/2		1/2		1/2		1/2	5/8	1/2	5/8
	Max Lift										
	SI (m)										
	RTPF	7.5		15		23		20	27	23	32
	EN (ft)										
	RTPF	25		50		75		67	91	76	107
	Suction Line	7/8		1–1/8		1–1/8		1–1/8		1–1/8	
	Charge										
	SI (kg)										
	RTPF	9.4		10.3		11.2		12.1	13.8	13.0	15.1
	EN (lbs)										
	RTPF	20.7		22.8		24.7		26.6	30.4	28.6	33.3

Legend:

Equivalent Length –	Equivalent tubing length, including effects of refrigeration specialties devices
Linear Length –	Linear tubing length, feet
Liquid Line –	Tubing size, inches OD.
Max Lift –	Maximum liquid lift (indoor unit ABOVE outdoor unit only), at maximum permitted liquid line pressure drop • Linear Length Less than 30 m (100 ft): Minimum 1.1° C (2.0° F) subcooling entering TXV • Linear Length Greater than 30 m (100 ft): Minimum 0.3° C (0.5° F) subcooling entering TXV
Suction Line –	Tube size, inches OD
Charge –	Charge Quantity, lbs. Calculated for both liquid line sizes (where applicable), but only with larger suction line size (where applicable)
DNU –	Do Not Use (pressure drop exceeds available subcooling in this model)
NR –	Not Recommended (use smaller liquid tube size)
SI –	Metric units of measure
EN –	English units of measure (I–P)
NOTE:	For applications with equivalent length greater than 57 m (188 ft) and/or linear length greater than 38 m (125 ft), contact your local Carrier representative.

TYPICAL PIPING AND WIRING



C09054

LEGEND:

NEC – National Electrical Code

TXV – Thermostatic Expansion Valve

* Field–supplied

† Double riser may be required. Consult condensing unit product data catalog for details.

NOTES:

1. All piping must follow standard refrigerant piping techniques. Refer to Carrier System Design Manual for details.
2. All wiring must comply with the applicable local and national codes.
3. Wiring and piping shown are general points-of-connection guides only and are not intended for, or to include all details for, a specific installation.
4. Liquid line solenoid valve (solenoid drop control) is recommended to prevent refrigerant migration to the compressor.
5. Internal factory-supplied TXVs not shown.

GUIDE SPECIFICATIONS

Commercial Air-Cooled Condensing Units

HVAC Guide Specifications

Size Range: 18.3 kW to 59.2 kW

Carrier Model Numbers: **38AUZ, Single Circuit (07 - 08 Models) 38AUD, Dual Circuit (12, 14, 16, 25 Models)**

Part 1 — General

1.01 SYSTEM DESCRIPTION

Outdoor-mounted, air-cooled condensing unit suitable for on-the-ground or rooftop installation. Unit shall consist of a hermetic scroll air-conditioning compressor(s) assembly, an air-cooled coil, propeller-type condenser fans, and a control box. Unit shall discharge supply air upward as shown on contract drawings. Unit shall be used in a refrigeration circuit matched with a packaged air-handling unit.

1.02 QUALITY ASSURANCE

A. Unit shall be rated in accordance with AHRI Standard 340/360.

B. Unit construction shall comply with ANSI/ASHRAE 15 safety code latest revision and comply with NEC.

C. Unit shall be constructed in accordance with UL 1995 standard and shall carry the UL and UL, Canada label.

D. Unit cabinet shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).

E. Air-cooled condenser coils for hermetic scroll compressor units 38AUZ and 38AUD shall be leak tested at 150 psig, and pressure tested at 650 psig.

F. Unit shall be manufactured in a facility registered to ISO 9001:2008 manufacturing quality standard.

1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be shipped as single package only, and shall be stored and handled according to unit manufacturer's recommendations.

1.04 WARRANTY (FOR INCLUSION BY SPECIFYING ENGINEER.)

Part 2 — Products

2.01 EQUIPMENT

A. General:

Factory-assembled, single piece, air-cooled condensing unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, compressor, holding charge, and special features required prior to field start-up.

B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a prepainted baked enamel finish.
2. A heavy-gauge roll-formed perimeter base rail with forklift slots and lifting holes shall be provided to facilitate rigging.

C. Condenser Fans:

1. Condenser fans shall be direct driven, propeller type, discharging air vertically upward.
2. Fan blades shall be balanced.
3. Condenser fan discharge openings shall be equipped with PVC-coated steel wire safety guards.
4. Condenser fan and motor shaft shall be corrosion resistant.

D. Compressor:

1. Compressor shall be of the hermetic scroll type .
2. Compressor shall be mounted on rubber grommets.
3. Compressors shall include overload protection.
4. Compressors shall be equipped with a crankcase heater.
5. Compressor shall be equipped with internal high pressure and high temperature protection.

E. Condenser Coils:

1. Standard Aluminum fin - Copper Tube Coils:

a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.

b. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig.

c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.

2. Optional Copper-fin evaporator and condenser coils:

a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.

b. Galvanized steel tube sheets shall not be acceptable.

c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.

3. Optional E-coated aluminum-fin evaporator and condenser coils:

a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.

b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.

c. Color shall be high gloss black with gloss per ASTM D523-89.

d. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges.

e. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93.

f. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93).

g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92).

h. Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90.

4. Standard All Aluminum Novation Coils:

a. Standard condenser coils shall have all aluminum Novation Heat Exchanger Technology design consisting of aluminum multi port flat tube design and aluminum fin. Coils shall be a furnace brazed design and contain epoxy lined shrink wrap on all aluminum to copper connections.

b. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.

5. Optional E-coated aluminum-fin, aluminum tube condenser coils:

a. Shall have a flexible epoxy polymer coating uniformly applied to all coil external surface areas without material bridging between fins or louvers.

b. Coating process shall ensure complete coil encapsulation, including all exposed fin edges.

c. E-coat thickness of 0.8 to 1.2 mil with top coat having a uniform dry film thickness from 1.0 to 2.0 mil on all external coil surface areas, including fin edges, shall be provided.

d. Shall have superior hardness characteristics of 2H per ASTM D3363-00 and cross-hatch adhesion of 4B-5B per ASTM D3359-02.

e. Shall have superior impact resistance with no cracking, chipping or peeling per NSF/ANSI 51-2002 Method 10.2.

F. Refrigeration Components:

Refrigeration circuit components shall include liquid line service valve, suction line service valve, a full charge of compressor oil, and a partial holding charge of refrigerant.

G. Controls and Safeties:

1. Minimum control functions shall include:

f. Control wire terminal blocks.

g. Compressor lockout on auto-reset safety until reset from thermostat.

h. Each unit shall utilize the Comfort Alert™ Diagnostic Board that provides:

(1.) System Pressure Trip fault code indication

(2.) Short Cycling fault code indication

(3.) Locked Rotor fault code indication

(4.) Open Circuit fault code indication

(5.) Reverse Phase 3 fault code indication

(6.) Welded Contactor fault code indication

(7.) Low Voltage fault code indication

(8.) Anti-short cycle protection

(9.) Phase reversal protection

2. Minimum safety devices which are equipped with automatic reset (after resetting first at thermostat), shall include:
   a. High discharge pressure cutout.
   b. Low pressure cutout.

H. Operating Characteristics:
1. The capacity of the condensing unit shall meet or exceed _____ Btuh at a suction temperature of _____°C/F. The power consumption at full load shall not exceed _____ kW.
2. The combination of the condensing unit and the evaporator or fan coil unit shall have a total net cooling capacity of _____ Btuh or greater at conditions of _____ cfm entering-air temperature at the evaporator at _____°C/F wet bulb and _____°C/F dry bulb, and air entering the condensing unit at _____°C/F.
3. The system shall have an EER of _____ Btuh/Watt or greater at standard AHRI conditions.
4. Standard unit shall be capable to operate up to 52°C (125°F) and down to 4°C (40°F)

I. Electrical Requirements:
1. Nominal unit electrical characteristics shall be _____ v, 3-ph, 50 Hz. The unit shall be capable of satisfactory operation within voltage limits of ____ v to _____ v.
2. Unit electrical power shall be single-point connection.
3. Unit control circuit shall contain a 24-v transformer for unit control.

J. Special Features:
1. Low-Ambient Temperature Control:
   A low-ambient temperature control shall be available as a factory-installed option or as a field-installed accessory. This low-ambient control shall regulate speed of the condenser-fan motors in response to the saturated condensing temperature of the unit. The control shall maintain correct condensing pressure at outdoor temperatures down to –29°C (-20°F).
2. Unit-Mounted, Non-Fused Disconnect Switch:
   Switch shall be factory-installed and internally mounted. NEC and UL-approved non-fused switch shall provide unit power shutoff. Switch shall be accessible from outside the unit and shall provide power off lockout capability. Non-fused disconnect cannot be used when unit MOCP electrical rating exceeds 80 amps.
3. Thermostat Controls:
   a. Programmable multi-stage thermostat shall have 7-day clock, holiday scheduling, large backlit display, remote sensor capability, and Title 24 compliance.
   b. Commercial Electronic Thermostat shall have 7-day time clock, auto-changeover, multi-stage capability, and large LCD (liquid crystal display) temperature display.
4. Louvered hail Guard Package:
   Louvered hail guard package shall protect coils against damage from hail and other flying debris.
5. Condenser Coil Grille (Novation 07-14 models only):
   Grille shall add decorative appearance to unit and protect condenser coil from large objects and vandalism.

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Rincon FHWA Traffic Noise Model

Model Input

Project Name :	534 Foothill Boulevard Project
Project Number :	21-11403
Modeling Condition :	Existing
Ground Type :	Hard
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL

Peak ratio to ADT:	
Traffic Desc. (Peak or ADT) :	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	29,600	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	28,600	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	27,000	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	27,850	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	20,950	40	50	96.4			2.6	1	80	5	15	

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	70.0	0.0	0.0	61.2	61.9	71.1
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	69.8	0.0	0.0	61.1	61.8	70.9
3	East Foothill Boulevard	Driveway 1	Driveway 2	69.6	0.0	0.0	60.8	61.5	70.7
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	69.7	0.0	0.0	61.0	61.6	70.8
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	68.5	0.0	0.0	59.7	60.4	69.6

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
64	203	641	2,028	6,414
62	196	620	1,960	6,198
59	185	585	1,850	5,851
60	191	603	1,908	6,035
45	144	454	1,436	4,540

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project		
Project Number :	21-11403		
Modeling Condition :	Existing Plus Project		
Ground Type :	Hard	**Peak ratio to ADT:**	
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL	**Traffic Desc. (Peak or ADT) :**	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	30,050	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	29,100	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	27,550	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	28,450	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	21,500	40	50	96.4			2.6	1	80	5	15	

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing Plus Project
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	70.0	0.0	0.0	61.3	62.0	71.1
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	69.9	0.0	0.0	61.2	61.8	71.0
3	East Foothill Boulevard	Driveway 1	Driveway 2	69.7	0.0	0.0	60.9	61.6	70.8
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	69.8	0.0	0.0	61.1	61.7	70.9
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	68.6	0.0	0.0	59.8	60.5	69.7

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
65	206	651	2,059	6,512
63	199	631	1,994	6,306
60	189	597	1,888	5,970
62	195	617	1,950	6,165
47	147	466	1,473	4,659

Appendix NOI-4

Rincon FHWA Traffic Noise Model

Model Input

Project Name :	534 Foothill Boulevard Project
Project Number :	21-11403
Modeling Condition :	Existing Ambient Growth
Ground Type :	Hard
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL

Peak ratio to ADT:	
Traffic Desc. (Peak or ADT) :	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	25,500	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	25,050	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	24,500	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	26,200	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	24,550	40	50	96.4			2.6	1	80	5	15	

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing Ambient Growth
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	69.3	0.0	0.0	60.6	61.3	70.4
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	69.3	0.0	0.0	60.5	61.2	70.4
3	East Foothill Boulevard	Driveway 1	Driveway 2	69.2	0.0	0.0	60.4	61.1	70.3
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	69.4	0.0	0.0	60.7	61.4	70.6
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	69.2	0.0	0.0	60.4	61.1	70.3

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
55	175	553	1,747	5,526
54	172	543	1,717	5,428
53	168	531	1,679	5,309
57	180	568	1,795	5,677
53	168	532	1,682	5,320

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project
Project Number :	21-11403
Modeling Condition :	Existing Ambient Growth Plus Project
Ground Type :	Hard
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL

Peak ratio to ADT:	
Traffic Desc. (Peak or ADT) :	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	25,950	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	25,550	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	25,050	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	26,800	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	25,100	40	50	96.4			2.6	1	80	5	15	

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing Ambient Growth Plus Project
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	69.4	0.0	0.0	60.7	61.3	70.5
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	69.3	0.0	0.0	60.6	61.3	70.4
3	East Foothill Boulevard	Driveway 1	Driveway 2	69.3	0.0	0.0	60.5	61.2	70.4
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	69.5	0.0	0.0	60.8	61.5	70.7
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	69.3	0.0	0.0	60.5	61.2	70.4

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
56	178	562	1,778	5,623
55	175	554	1,751	5,537
54	172	543	1,717	5,428
58	184	581	1,836	5,807
54	172	544	1,720	5,439

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project
Project Number :	21-11403
Modeling Condition :	Existing Ambient Growth Plus Cumulative
Ground Type :	Hard
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL

Peak ratio to ADT:	
Traffic Desc. (Peak or ADT) :	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	26,900	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	27,800	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	27,300	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	28,950	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	27,350	40	50	96.4			2.6	1	80	5	15	

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing Ambient Growth Plus Cumulative
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	69.6	0.0	0.0	60.8	61.5	70.7
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	69.7	0.0	0.0	61.0	61.6	70.8
3	East Foothill Boulevard	Driveway 1	Driveway 2	69.6	0.0	0.0	60.9	61.6	70.7
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	69.9	0.0	0.0	61.1	61.8	71.0
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	69.6	0.0	0.0	60.9	61.6	70.7

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
58	184	583	1,843	5,829
60	191	602	1,905	6,024
59	187	592	1,871	5,916
63	198	627	1,984	6,273
59	187	593	1,874	5,927

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project		
Project Number :	21-11403		
Modeling Condition :	Existing Ambient Growth Plus Cumulative Plus Project		
Ground Type :	Hard	**Peak ratio to ADT:**	
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL	**Traffic Desc. (Peak or ADT) :**	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	28,300	40	50	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	30,600	40	50	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	30,100	40	50	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	31,750	40	50	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	30,150	40	50	96.4			2.6	1	80	5	15	

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Existing Ambient Growth Plus Cumulative Plus Project
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	69.8	0.0	0.0	61.0	61.7	70.9
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	70.1	0.0	0.0	61.4	62.1	71.2
3	East Foothill Boulevard	Driveway 1	Driveway 2	70.0	0.0	0.0	61.3	62.0	71.2
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	70.3	0.0	0.0	61.5	62.2	71.4
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	70.1	0.0	0.0	61.3	62.0	71.2

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
61	194	613	1,939	6,133
66	210	663	2,097	6,631
65	206	652	2,063	6,523
69	218	688	2,176	6,880
65	207	653	2,066	6,533

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project		
Project Number :	21-11403		
Modeling Condition :	Cumulative at Nearest Building Façade		
Ground Type :	Hard	**Peak ratio to ADT:**	
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL	**Traffic Desc. (Peak or ADT) :**	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	28,300	40	75	96.4			2.6	1	80	5	15	
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	30,600	40	75	96.4			2.6	1	80	5	15	
3	East Foothill Boulevard	Driveway 1	Driveway 2	30,100	40	75	96.4			2.6	1	80	5	15	
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	31,750	40	75	96.4			2.6	1	80	5	15	
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	30,150	40	75	96.4			2.6	1	80	5	15	

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Cumulative at Nearest Building Façade
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	68.0	0.0	0.0	59.3	60.0	69.1
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	68.4	0.0	0.0	59.6	60.3	69.5
3	East Foothill Boulevard	Driveway 1	Driveway 2	68.3	0.0	0.0	59.5	60.2	69.4
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	68.5	0.0	0.0	59.8	60.5	69.6
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	68.3	0.0	0.0	59.6	60.2	69.4

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
61	194	613	1,939	6,133
66	210	663	2,097	6,631
65	206	652	2,063	6,523
69	218	688	2,176	6,880
65	207	653	2,066	6,533

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project		
Project Number :	21-11403		
Modeling Condition :	Cumulative at Common Outdoor Activity Area		
Ground Type :	Hard	**Peak ratio to ADT:**	
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL	**Traffic Desc. (Peak or ADT) :**	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	28,300	40	235	96.4			2.6	1	80	5	15	-3
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	30,600	40	235	96.4			2.6	1	80	5	15	-3
3	East Foothill Boulevard	Driveway 1	Driveway 2	30,100	40	235	96.4			2.6	1	80	5	15	-3
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	31,750	40	235	96.4			2.6	1	80	5	15	-3
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	30,150	40	235	96.4			2.6	1	80	5	15	-3

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Cumulative at Common Outdoor Activity Area
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	60.1	0.0	0.0	51.3	52.0	61.2
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	60.4	0.0	0.0	51.7	52.3	61.5
3	East Foothill Boulevard	Driveway 1	Driveway 2	60.3	0.0	0.0	51.6	52.3	61.4
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	60.6	0.0	0.0	51.8	52.5	61.7
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	60.3	0.0	0.0	51.6	52.3	61.4

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
31	97	307	972	3,074
33	105	332	1,051	3,323
33	103	327	1,034	3,269
34	109	345	1,090	3,448
33	104	327	1,035	3,274

Appendix NOI-4

Rincon FHWA Traffic Noise Model

rincon

Model Input

Project Name :	534 Foothill Boulevard Project		
Project Number :	21-11403		
Modeling Condition :	Cumulative at Pool Area		
Ground Type :	Hard	**Peak ratio to ADT:**	
Metric (L_{eq}, L_{dn}, CNEL) :	CNEL	**Traffic Desc. (Peak or ADT) :**	ADT

Segment Number	Roadway	Segment		Traffic Volume	Speed (mph)	Distance to Centerline	Vehicle Cassification Mix (%)					24-Hour Traffic Distribution (%)			K-Factor
		From	To				Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Day	Evening	Night	
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	28,300	40	175	96.4			2.6	1	80	5	15	-5
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	30,600	40	175	96.4			2.6	1	80	5	15	-5
3	East Foothill Boulevard	Driveway 1	Driveway 2	30,100	40	175	96.4			2.6	1	80	5	15	-5
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	31,750	40	175	96.4			2.6	1	80	5	15	-5
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	30,150	40	175	96.4			2.6	1	80	5	15	-5

rincon

Model Results

Project Number :	534 Foothill Boulevard Project
Modeling Condition :	21-11403
Ground Type :	Cumulative at Pool Area
Metric (Leq, Ldn, CNEL) :	CNEL

Segment Number	Roadway	Segment		Noise Levels (dB) CNEL					
		From	To	Automobiles	Motorcycles	Bus	Medium Trucks	Heavy Trucks	Total
1	East Foothill Boulevard	N. Sycamore Ave	N. Acacia Ave	59.3	0.0	0.0	50.6	51.3	60.4
2	East Foothill Boulevard	N. Acacia Ave	Driveway 1	59.7	0.0	0.0	50.9	51.6	60.8
3	East Foothill Boulevard	Driveway 1	Driveway 2	59.6	0.0	0.0	50.9	51.5	60.7
4	East Foothill Boulevard	Driveway 2	N. Eucalyptus Ave	59.8	0.0	0.0	51.1	51.8	60.9
5	East Foothill Boulevard	N. Eucalyptus Ave	N. Pepper Ave	59.6	0.0	0.0	50.9	51.6	60.7

Distance to Traffic Noise Contours (feet)				
70 dB	65 dB	60 dB	55 dB	50 dB
19	61	194	613	1,939
21	66	210	663	2,097
21	65	206	652	2,063
22	69	218	688	2,176
21	65	207	653	2,066

Groundborne Noise and Vibration Modeling

Notes
The reference distance is measured from the nearest anticipated point of construction equipment to the nearest structure.

	Reference Level Inputs			
Equipment	PPV_{ref} (in/sec)	Lv_{ref} (VdB)	RMS_{ref} (in/sec)	Reference Distance
Vibratory Roller	0.21	94	0.050	25
Hoe Ram	0.089	87	0.022	25
Large bulldozer	0.089	87	0.022	25
Caisson drilling	0.089	87	0.022	25
Loaded trucks	0.076	83	0.014	25
Jack hammer	0.035	79	0.009	25
Small bulldozer	0.003	58	0.001	25

	Vibration Level at Receiver			
Equipment	Distance (feet)	PPV_x (in/sec)	Lv_x (VdB)	RMS_x (in/sec)
Vibratory Roller	50	0.0980	87	0.023
Hoe Ram	50	0.0415	80	0.010
Large bulldozer	50	0.0415	80	0.010
Caisson drilling	50	0.0415	80	0.010
Loaded trucks	50	0.0355	76	0.007
Jack hammer	50	0.0163	72	0.004
Small bulldozer	50	0.0014	51	0.000

	Vibration Contours		
	Distance to (feet)		
Equipment	0.200 PPV	72.0 VdB	0.0080 RMS
Vibratory Roller	26	250	133
Hoe Ram	12	120	64
Large bulldozer	12	120	64
Caisson drilling	12	120	64
Loaded trucks	10	79	42
Jack hammer	5	52	28
Small bulldozer	1	6	3

Source
California Department of Transportation (Caltrans). 2013. Transportation and Construction Last Updated: 4/11/2019

Appendix H

Traffic Analysis

Foothill Apartments

TRAFFIC ANALYSIS
CITY OF RIALTO

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AUGUST 13, 2021

14118-02 TA Report REV

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
APN	Assessor's Parcel Number
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
EAP	Existing Ambient Growth plus Project
EAPC	Existing Ambient Growth plus Project Plus Cumulative
GHG	Greenhouse Gas
HCM	Highway Capacity Manual
HY	Horizon Year
ITE	Institute of Transportation Engineers
LOS	Level of Service
NP	Without Project
OPR	Office of Planning and Research
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Foothill Apartments
RTP	Regional Transportation Plan
SBCTA	San Bernardino County Transportation Authority
SCS	Sustainable Communities Strategy
sf	Square Feet
TA	Traffic Analysis
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WP	With Project

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1 SUMMARY OF FINDINGS

This report presents the results of the traffic analysis (TA) for the proposed Foothill Apartments development ("Project"), which is located at 534 Foothill Boulevard in the City of Rialto. The Project's location in relation to the surrounding area is shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and where necessary recommend improvements to achieve acceptable operations consistent with General Plan level of service goals and policies. This TA has been prepared in accordance with the City of Rialto's Traffic Impact Analysis Report Guidelines and Requirements, County of San Bernardino Transportation Impact Study Guidelines (dated July 9, 2019), San Bernardino County Congestion Management Program (CMP) Guidelines for CMP Traffic Impact Analysis Reports (Appendix B, 2016 Update), and consultation with City staff during the TA scoping process. (1) (2) (3) The City approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

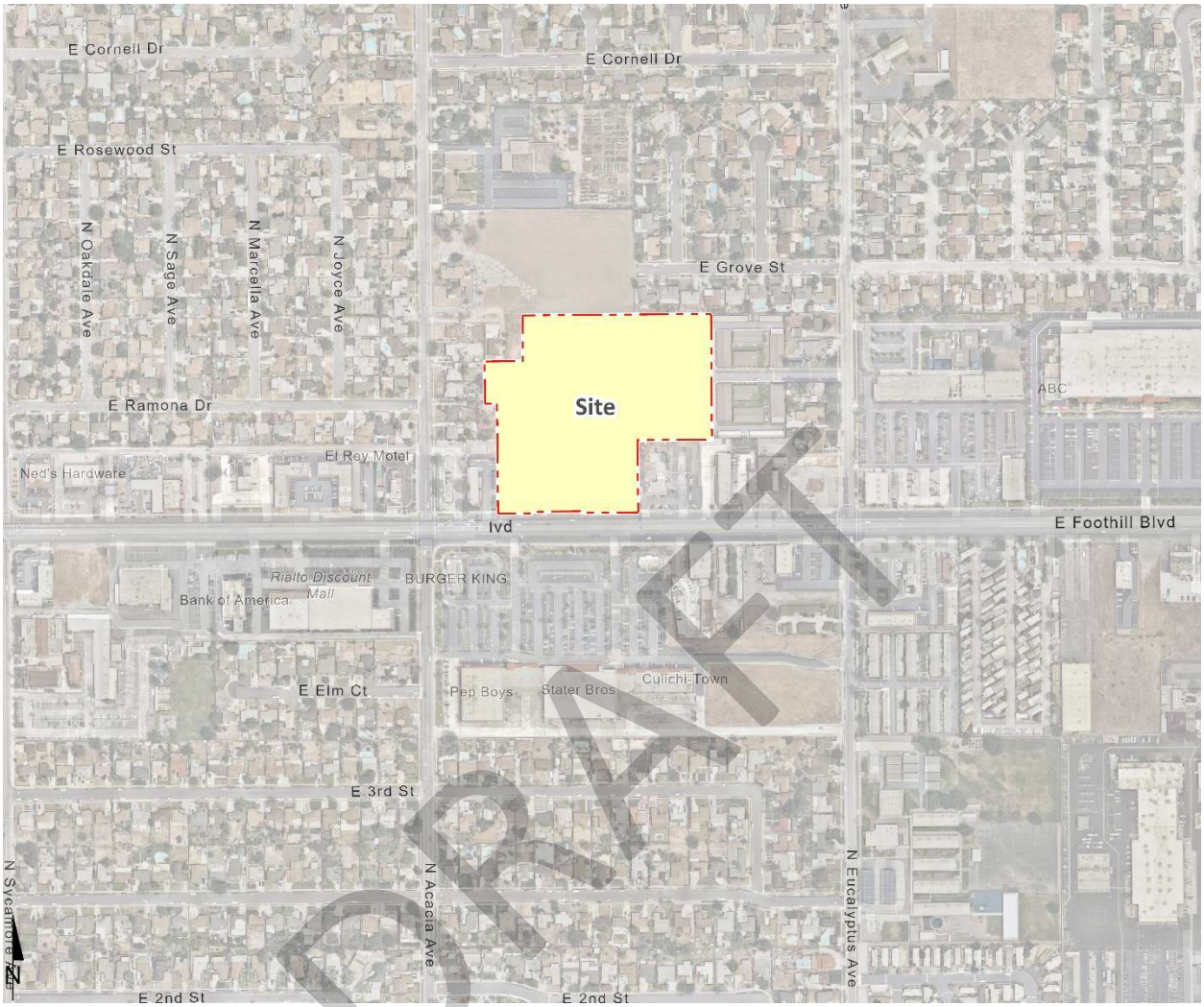
1.1 SUMMARY OF FINDINGS – VEHICLE MILES TRAVELED AND LEVEL OF SERVICE

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt Vehicle Miles Traveled (VMT) as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. It is our understanding that the City of Rialto utilizes the San Bernardino County Transportation Authority (SBCTA) Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment and VMT Screening Tool. The Screening Tool allows users to input an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (Project APNs: 0254+-261-14, 0254-261-17, 0132-201-03, and 0132-181-01). The Project was found to meet the Low VMT area screening criteria. As the City of Rialto is currently developing agency specific VMT guidelines and thresholds, the Project's VMT impact is anticipated to be less than significant based on the current San Bernardino County guidance, however, this may be subject to change once the City adopts its own VMT methodology and thresholds. The VMT analysis is included in Appendix 1.2. The Project is to construct the following improvements as design features in conjunction with development of the site:

- Project to construct Foothill Boulevard (SR-66) at its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western Project boundary to the eastern Project boundary consistent with the City's standards. Project to design Driveway 1 to restrict access to right-in/right-out. Project will have full access at Driveway 2.

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EXHIBIT 1-1: LOCATION MAP



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Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report.

The development of the proposed Project is not anticipated to require the construction of any off-site improvements, however, there are improvement needs identified at off-site intersections for future traffic analysis scenarios where the Project would contribute traffic (as measured by 50 or more peak hour trips). As such, the Project Applicant's responsibility for the Project's contributions towards off-site intersection deficiencies is fulfilled through payment of fair share or participation in the pre-existing fee programs that would be assigned to construction of the identified recommended improvements. The Project Applicant would be required to pay requisite fair share contributions and fee payments consistent with the City's requirements (see Section 8 *Local and Regional Funding Mechanisms*).

1.2 PROJECT OVERVIEW

Exhibit 1-2 illustrates the preliminary Project site plan. The Project is proposed to consist of 204 multifamily mid-rise (3-10 floor) residential dwelling units. It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2024. For the purpose of this analysis, the following driveways will be assumed to provide access to the Project site:

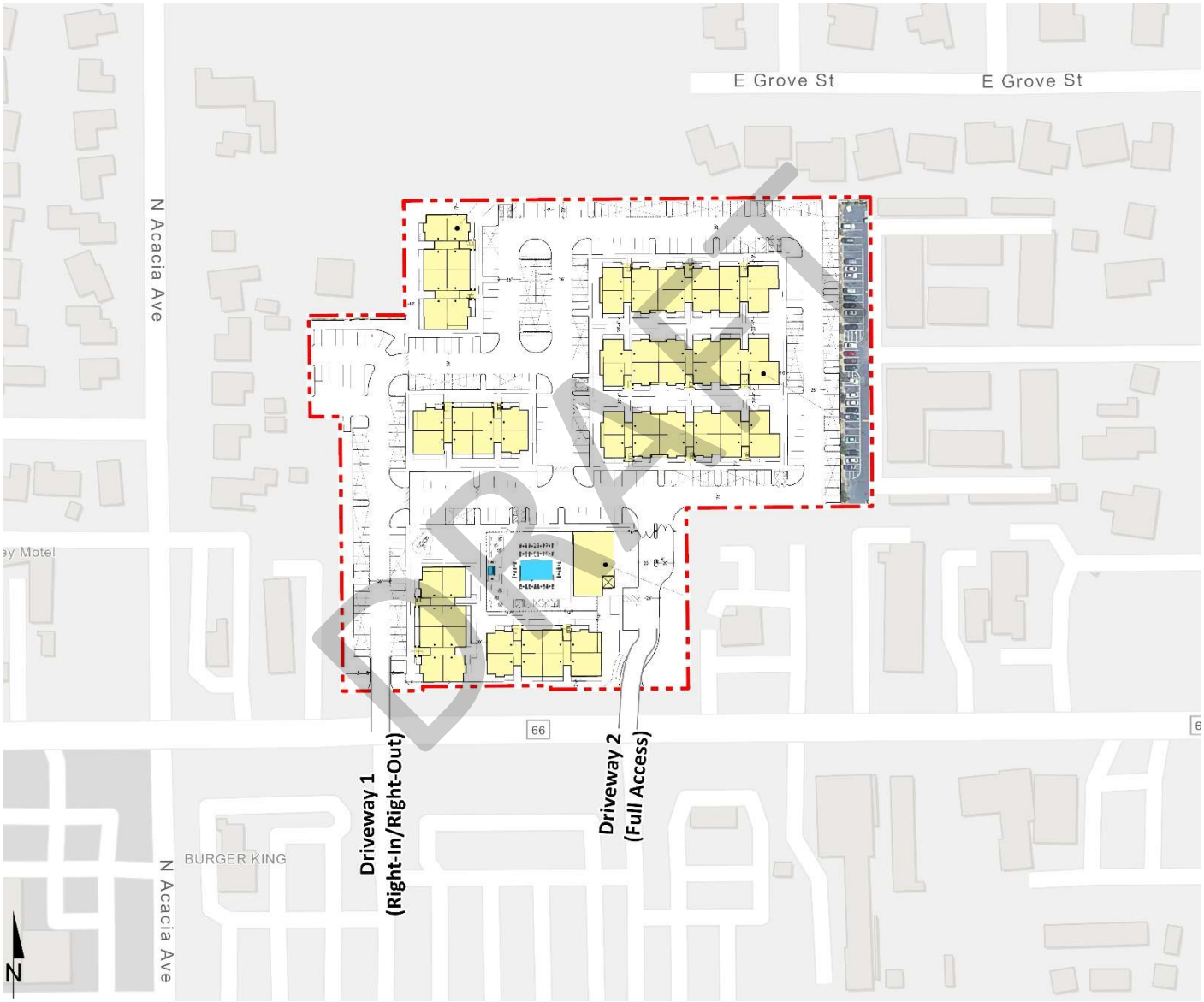
- Driveway 1 on Foothill Boulevard – Right-in/Right-out Only Access; note this future driveway is for resident access only (entry/exit)
- Driveway 2 on Foothill Boulevard Avenue – Full Access (aligns with existing driveway to the south)

The trip generation rate and vehicle and truck mix are sourced from the City of Rialto's Public Works Department's Traffic Impact Analysis Report Guidelines and Requirements (2013). In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012) for Warehousing (ITE Land Use Code 150) were used. (4) Passenger car equivalent (PCE) factors were applied to the trip generation rates to convert trips made by heavy trucks (2-axle, 3-axle, and 4+-axle trucks) to PCE values.

The proposed Project is anticipated to generate 1,110 two-way vehicle trips per day, with 73 AM peak hour trips and 90 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.

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EXHIBIT 1-2: PRELIMINARY SITE PLAN



1.3 ANALYSIS SCENARIOS

For the purposes of this TA, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2021)
- Existing plus Ambient Growth plus Project (EAP) (2024)
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024)

1.3.1 EXISTING (2021) CONDITIONS

Information for Existing (2021) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EAP (2024) CONDITIONS

The Existing plus Ambient Growth plus Project (EAP) conditions analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic. To account for background traffic growth, an ambient growth factor from Existing conditions of 2% per year, compounded annually, for a total of 6.12% is included for EAP (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area within the City of Rialto.

1.3.3 EAPC (2024) CONDITIONS

The Existing plus Ambient Growth plus Project plus Cumulative (EAPC) 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 2% per year, compounded annually, for a total of 6.12% is included for EAPC (2024) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area. This comprehensive list was compiled from information provided by the City of Rialto and other near-by agencies.

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1.4 STUDY AREA

To ensure that this TA satisfies the City of Rialto's requirements, Urban Crossroads, Inc. prepared a TA 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 and is provided in Appendix 1.1.

The following 4 study area intersections shown on Exhibit 1-2 and listed on Table 1-1 were selected for this TA based on consultation with City of Rialto staff. The "50 peak hour trip" criterion generally represents a minimum number of trips at which a typical intersection would have the potential to be affected 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 influence (i.e., study area).

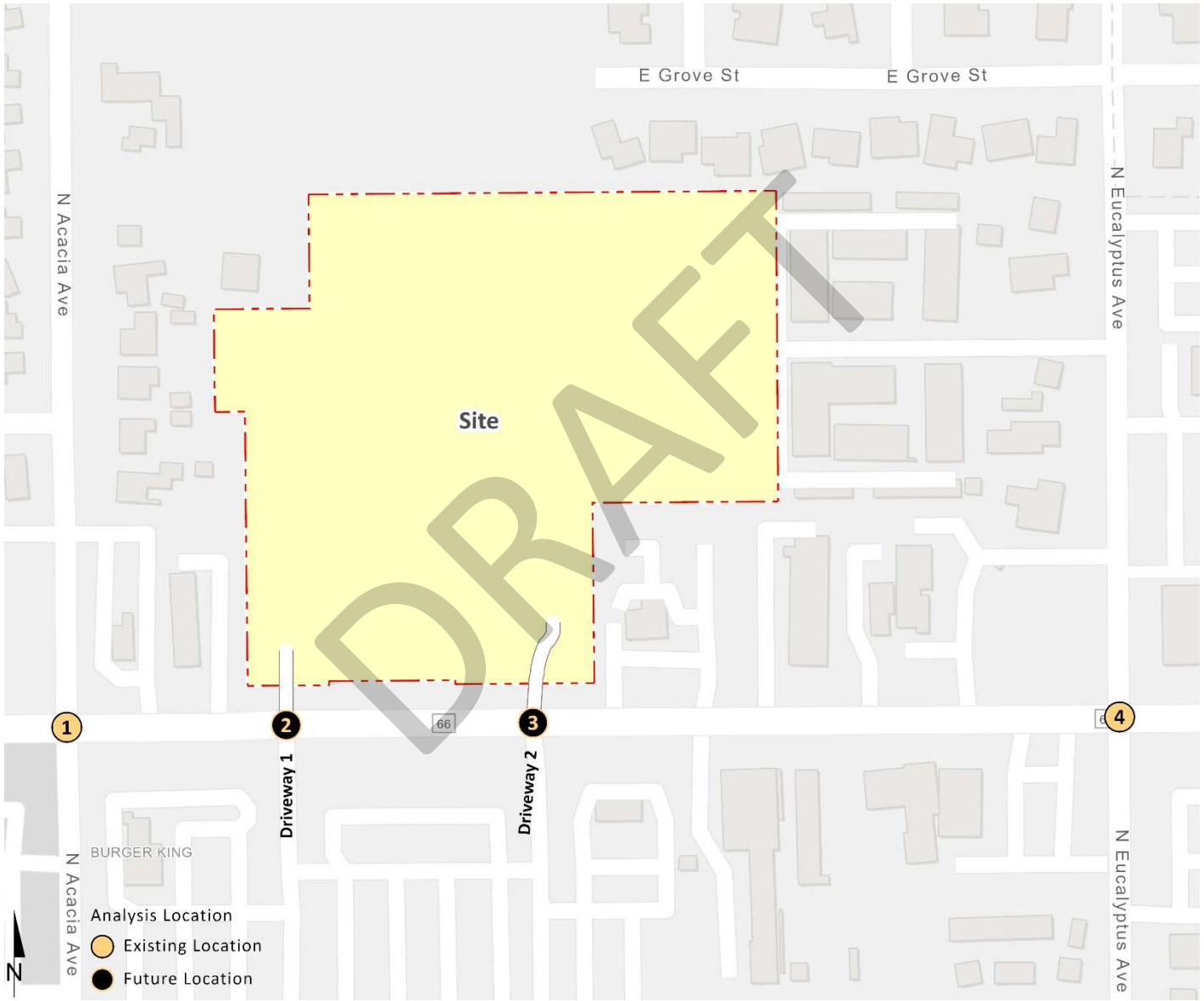
TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection	Jurisdiction	CMP?
1	Acacia Avenue & Foothill Boulevard	Rialto	No
2	Driveway 1 & Foothill Boulevard – Future Intersection	Rialto	No
3	Driveway 2 & Foothill Boulevard	Rialto	No
4	Eucalyptus Avenue & Foothill Boulevard	Rialto	No

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP legislation. There are no study area intersections that are identified as CMP facilities per the SBCTA CMP (see Table 1-1). (3)

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EXHIBIT 1-3: STUDY AREA



1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *EAP (2024) Traffic Conditions*, Section 6 *EAPC (2024) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-3.

TABLE 1-3: SUMMARY OF INTERSECTION LEVEL OF SERVICE BY ANALYSIS SCENARIO

#	Intersection	Existing (2021) AM	Existing (2021) PM	EAP (2024) AM	EAP (2024) PM	EAPC (2024) AM	EAPC (2024) PM
1	Acacia Ave. & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D
2	Driveway 1 & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D
3	Driveway 2 & Foothill Blvd.	A - D	A - D	E	E	E	E
4	Eucalyptus Ave. & Foothill Blvd.	A - D	A - D	A - D	A - D	A - D	A - D

A - D = A - D E = E F = F

1.5.1 EXISTING (2021) CONDITIONS

The study area intersections all currently operate at an acceptable LOS during peak hours under Existing (2021) traffic conditions.

1.5.2 EAP (2024) CONDITIONS

The following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

1.5.3 EAPC (2024) CONDITIONS

The following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

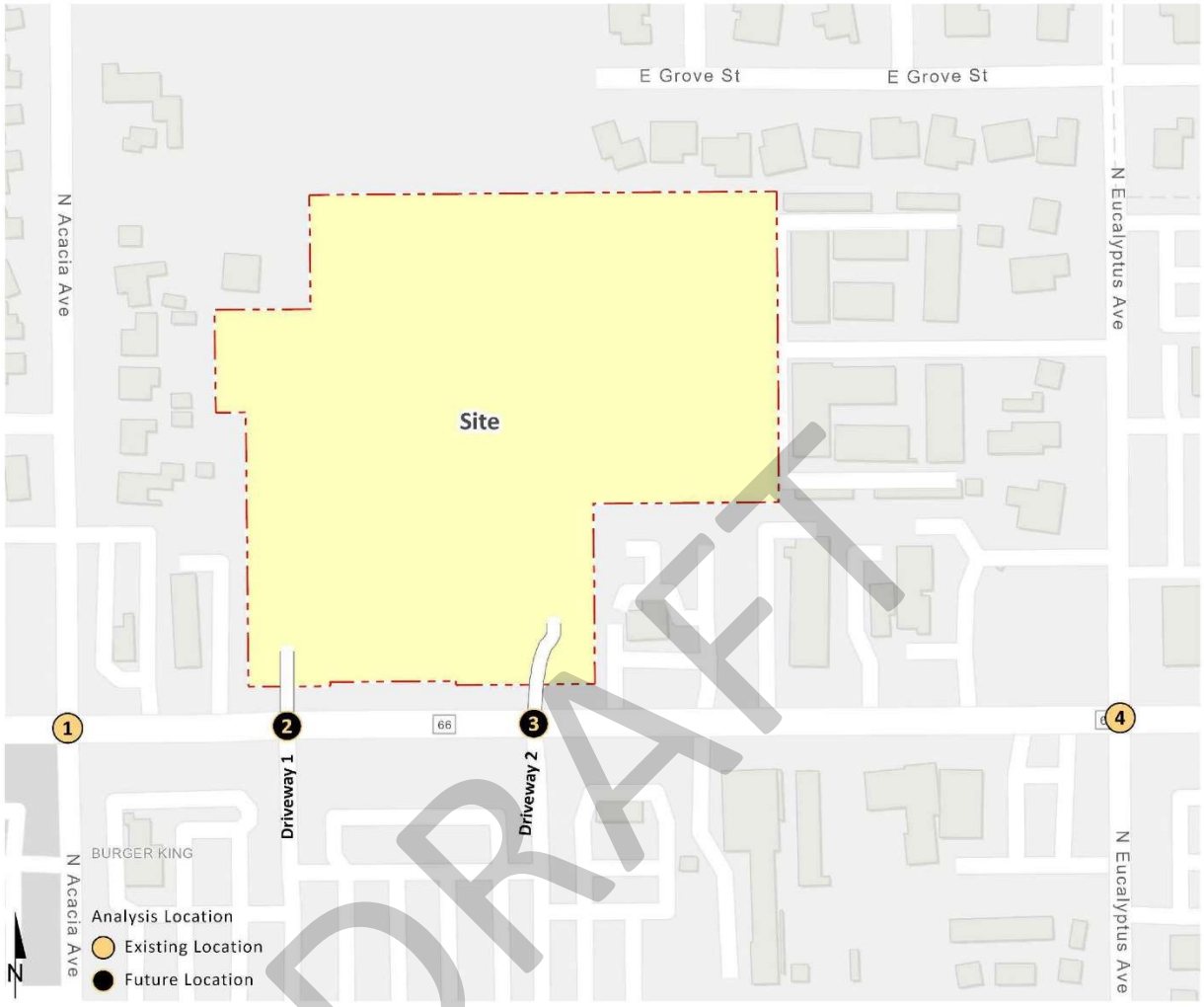
1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

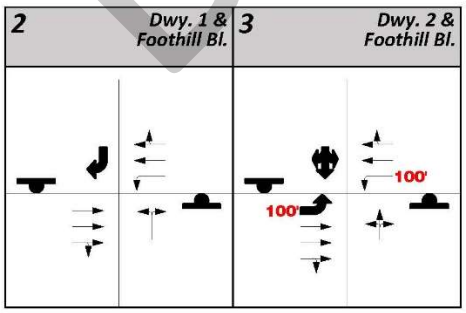
The following recommendations are based on the improvements needed to accommodate site access. The site adjacent recommendations are shown on Exhibit 1-4. Queuing analysis results for the Project driveways is provided in Appendix 1.3.

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EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



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= Stop Sign
= Stop Sign Improvement
= Existing Lane
= Lane Improvement
100' = Recommended Turn Pocket Length

Recommendation 1 – Driveway 1 & Foothill Boulevard (#2) – The following improvements are necessary to accommodate site access:

- Project to install a stop sign on the southbound approach and construct a southbound right turn lane. Driveway to be designed to restrict access to right-in/right-out only.

Recommendation 2 – ***Driveway 2 & Foothill Boulevard (#2)*** – The following improvements are necessary to accommodate site access:

- Project to install a stop sign on the southbound approach and construct a shared left-through-right turn lane. Driveway aligns with an existing driveway on the south side of Foothill Boulevard and will allow for full access.

Recommendation 3 – Foothill Boulevard is an east-west oriented roadway located on the Project's southern boundary. Project to construct Foothill Boulevard at its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western Project boundary to the eastern Project boundary consistent with the City's standards.

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Rialto's 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 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (5) 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. (5) 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 on Table 2-1. Consistent with City of Rialto traffic study guidelines, a saturation flow rates of 1900 in vehicles per hour green per lane (vphgpl) has been utilized in the traffic analysis for signalized intersections:

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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
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 (6th Edition)

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The traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to analyze signalized intersections within the City of Rialto. 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. (5)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Rialto requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (5) 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 (6th Edition)

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. For two-way stop-controlled intersections, the delay is reported for the worst single movement/lane (typically occurs on the side street).

2.3 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 TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (6)

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. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (6) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 is appropriate to use for this TA 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.

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Future intersections that do not currently 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.

Traffic signal warrant analyses were performed for the following study area intersection shown on Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection	Jurisdiction
3	Driveway 2 & Foothill Bl.	Rialto

Although unsignalized, the future intersection of Driveway 1 & Foothill Boulevard is anticipated to have restricted access (right-in/right-out only). As such, traffic signal warrants have not been evaluated for this intersection. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. 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.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The following LOS will be utilized for study area intersections located within the City: 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.

The City's Traffic Study Guidelines identifies LOS D as the minimum LOS for intersections and roadway segments, with the exception of Riverside Drive south of the Metrolink tracks to the City's southern border, which can operate at LOS E.

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2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. This section outlines the methodology used in this analysis related to identifying circulation system deficiencies at intersections within the City of Rialto. Consistent with the City's traffic study guidelines, new development is required to improve traffic deficiencies exceeding these levels.

Deficiencies 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

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Rialto General Plan Circulation Network, and a review of existing peak hour intersection 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 7 existing and future intersections as shown previously on Exhibit 1-3. 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

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.

Major Arterials can accommodate six travel lanes and an 18-foot raised median within a 120-foot right-of-way. These facilities are intended to carry large volumes of relatively high-speed traffic between the region to different parts of the City. An example of a Major Arterial within the study area includes:

- Foothill Boulevard

Collectors can accommodate two travel lanes with 8-foot shoulders for parking on either side within a 64-foot right-of-way. Examples of collectors within the study area include:

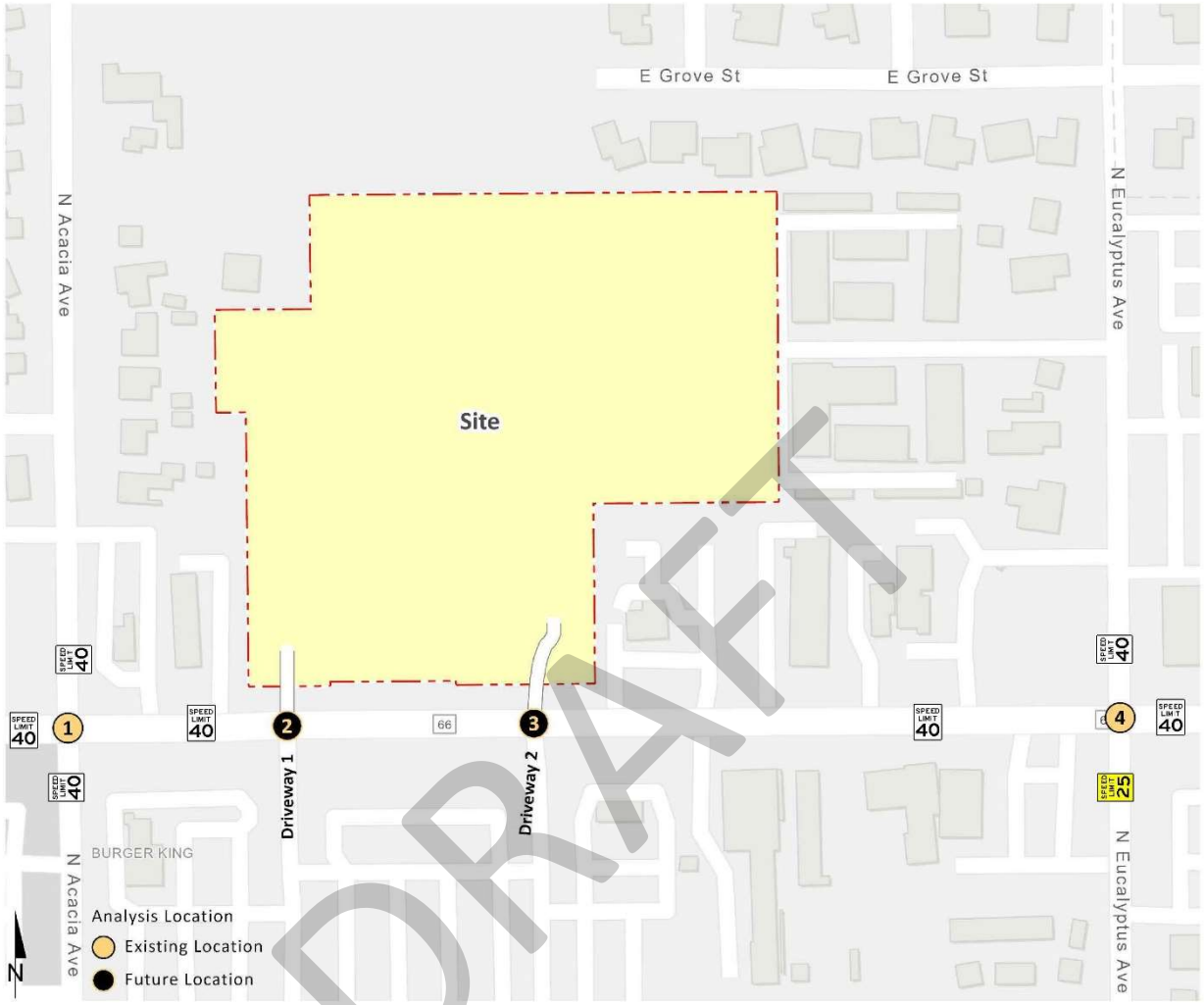
- Acacia Avenue
- Eucalyptus Avenue

3.3 TRANSIT SERVICE

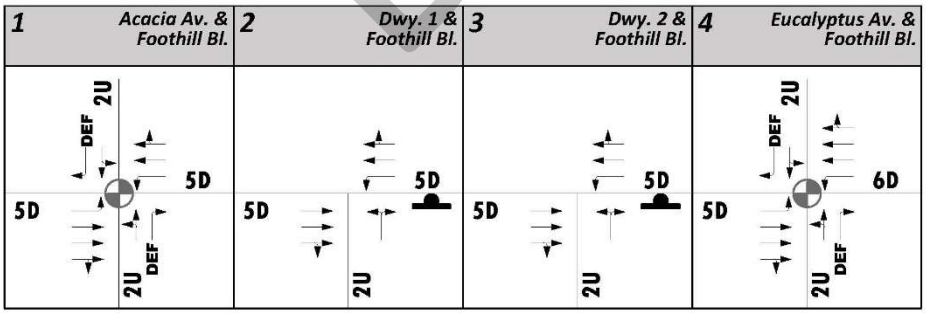
The study area is currently served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County, with bus service along Foothill Boulevard. The existing transit routes within the study area are shown on Exhibit 3-4. Omnitrans Route 14 currently runs along Foothill Boulevard with existing stops at Acacia Avenue and Eucalyptus Avenue. It is likely that the existing transit line could serve 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.

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EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



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= Traffic Signal
= Stop Sign
4 = Number of Lanes
D = Divided
U = Undivided
DEF = Defacto Right Turn
= Speed Limit (MPH)
= School Speed Limit (MPH)

EXHIBIT 3-2: CITY OF RIALTO GENERAL PLAN CIRCULATION ELEMENT

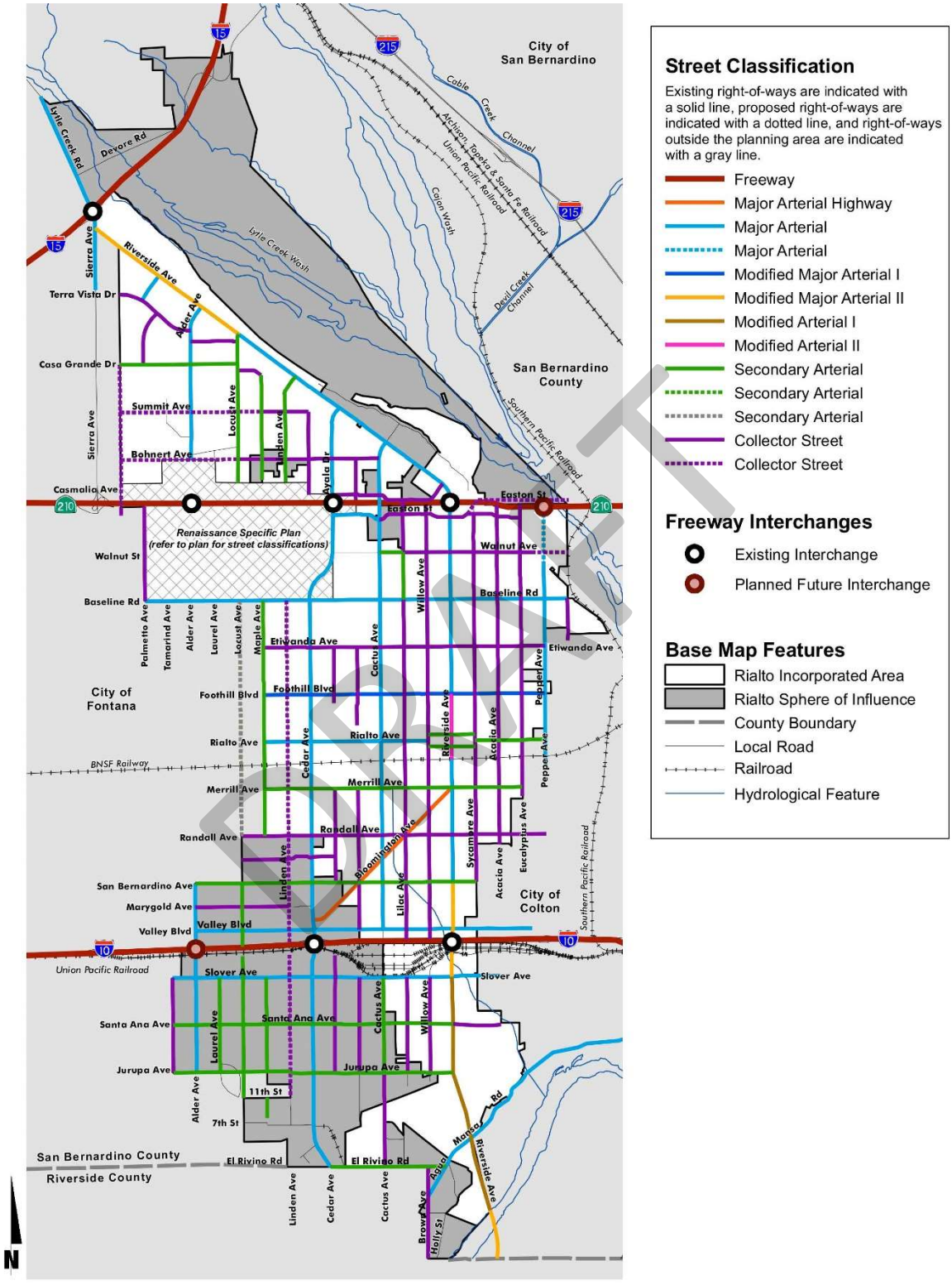
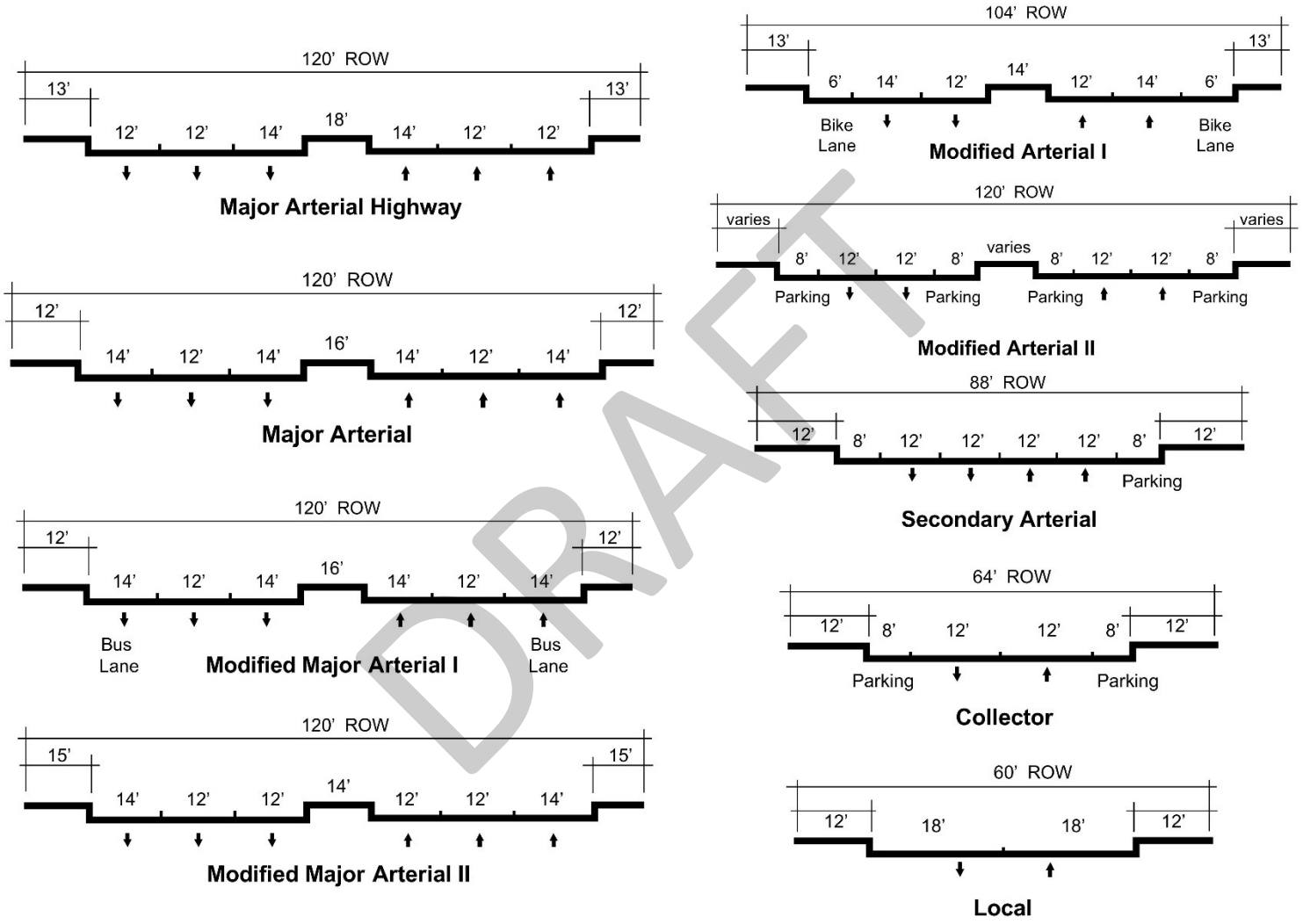
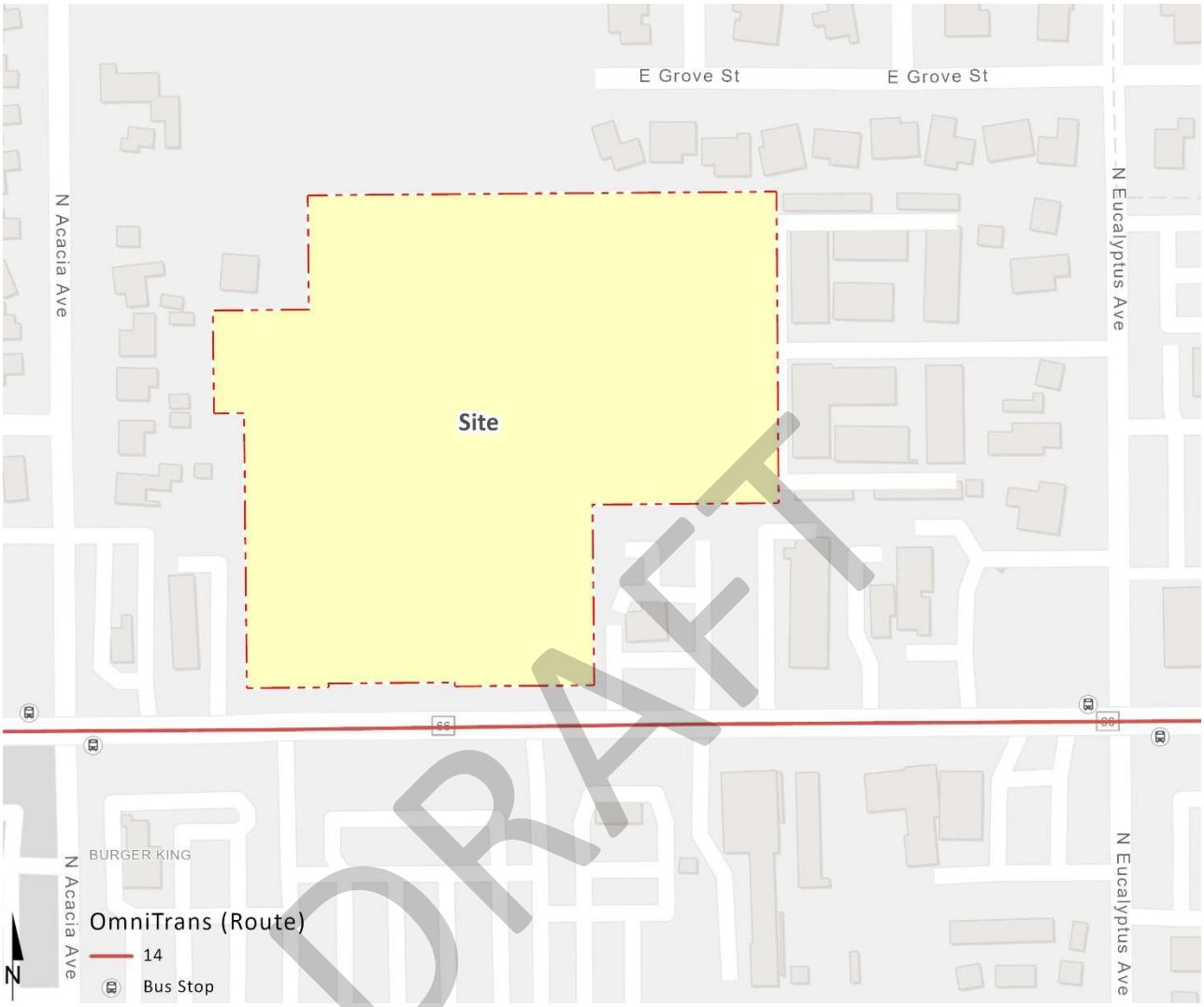


EXHIBIT 3-3: CITY OF RIALTO ROADWAY CROSS-SECTIONS



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EXHIBIT 3-4: EXISTING TRANSIT ROUTES



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3.4 BICYCLE & PEDESTRIAN FACILITIES

The City of Rialto's bicycle facilities are shown on Exhibit 3-5. The only existing bike trail is the Pacific Electric Trail which is located south of Foothill Boulevard. Field observations indicate nominal pedestrian and bicycle activity within the study area. As shown on Exhibit 3-6, pedestrian facilities are built out along Foothill Boulevard with the exception of the Project's frontage.

3.5 EXISTING (2021) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in 2015. The following peak hours were selected for analysis:

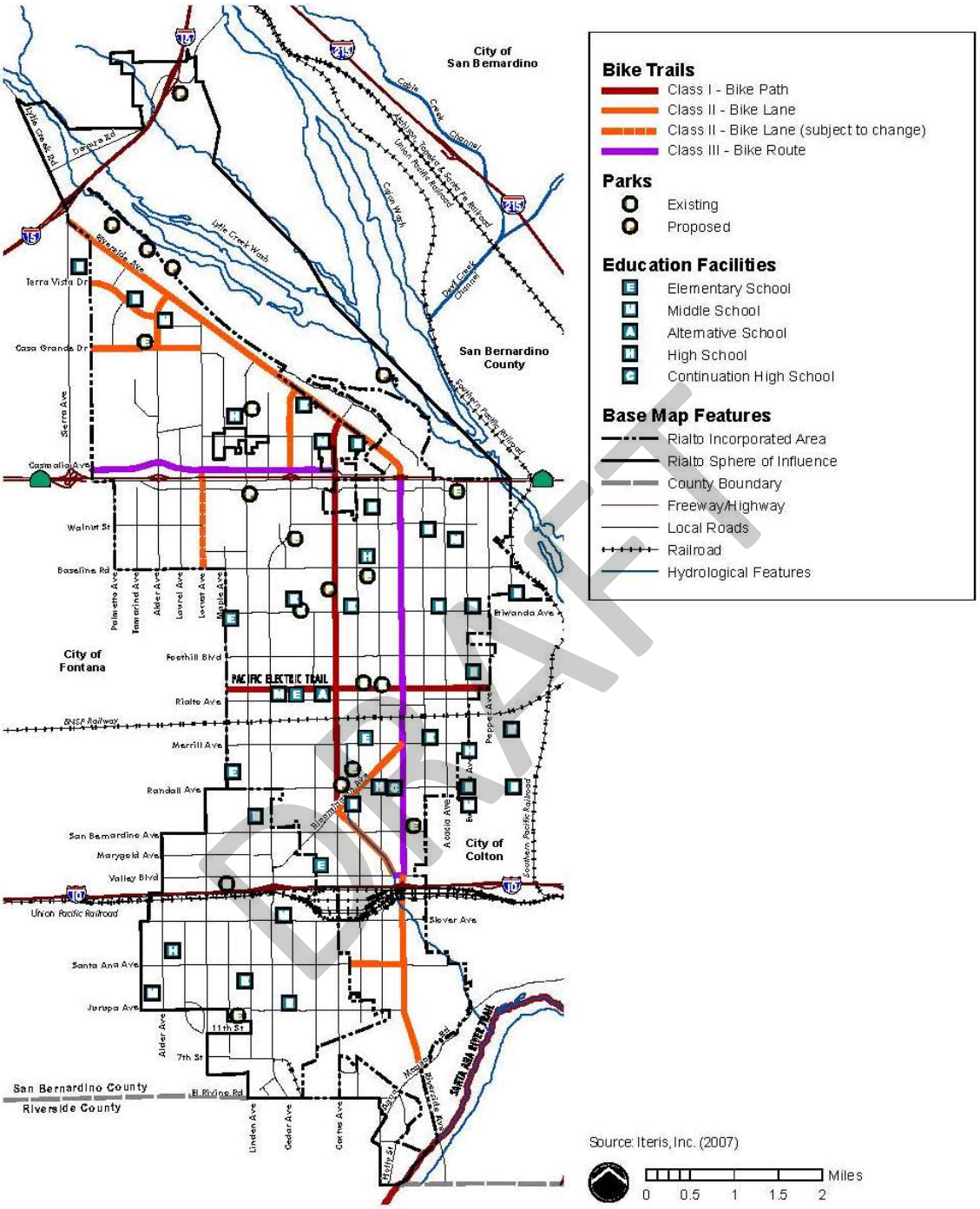
- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Due to the currently ongoing COVID-19 pandemic, schools and businesses within the study area were closed or operating at less than full capacity at the time this study was prepared. As such, historic 2015 traffic counts were utilized in conjunction with a 2% per year growth rate (compounded annually) to reflect 2021 conditions. The 2015 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 traffic counts include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. To represent the effects large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCE. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the CMP and the City's Traffic Study Guidelines.

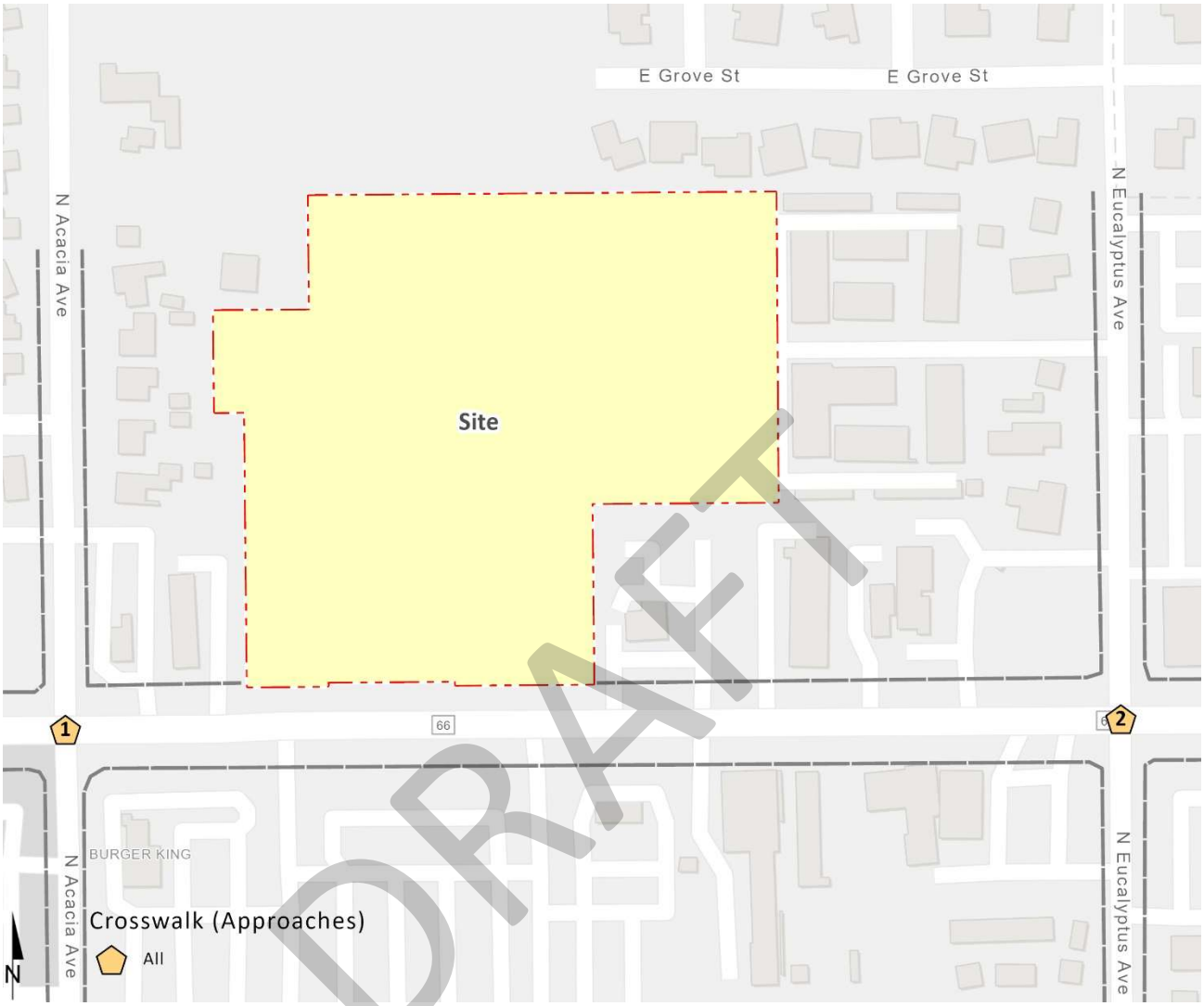
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EXHIBIT 3-5: CITY OF RIALTO BICYCLE FACILITIES



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EXHIBIT 3-6: EXISTING PEDESTRIAN FACILITIES



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Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were 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 13.22 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.57 percent. As such, the above equation utilizing a factor of 13.22 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.57 percent (i.e., 1/0.0757 = 13.22) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are shown on Exhibit 3-7. Note volumes shown are in actual vehicles. The PCE volumes used for the peak hour operations analyses can be found in the applicable appendix with the intersection operations analysis worksheets.

3.6 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 on Table 3-1, which indicates all existing study area intersections are currently operating at an acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2021) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	16.1	15.0	A	B
2	Driveway 1 & Foothill Blvd.	CSS	Future Intersection			
3	Driveway 2 & Foothill Blvd.	CSS	18.3	26.2	C	D
4	Eucalyptus Ave. & Foothill Blvd.	TS	12.8	13.4	B	B

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

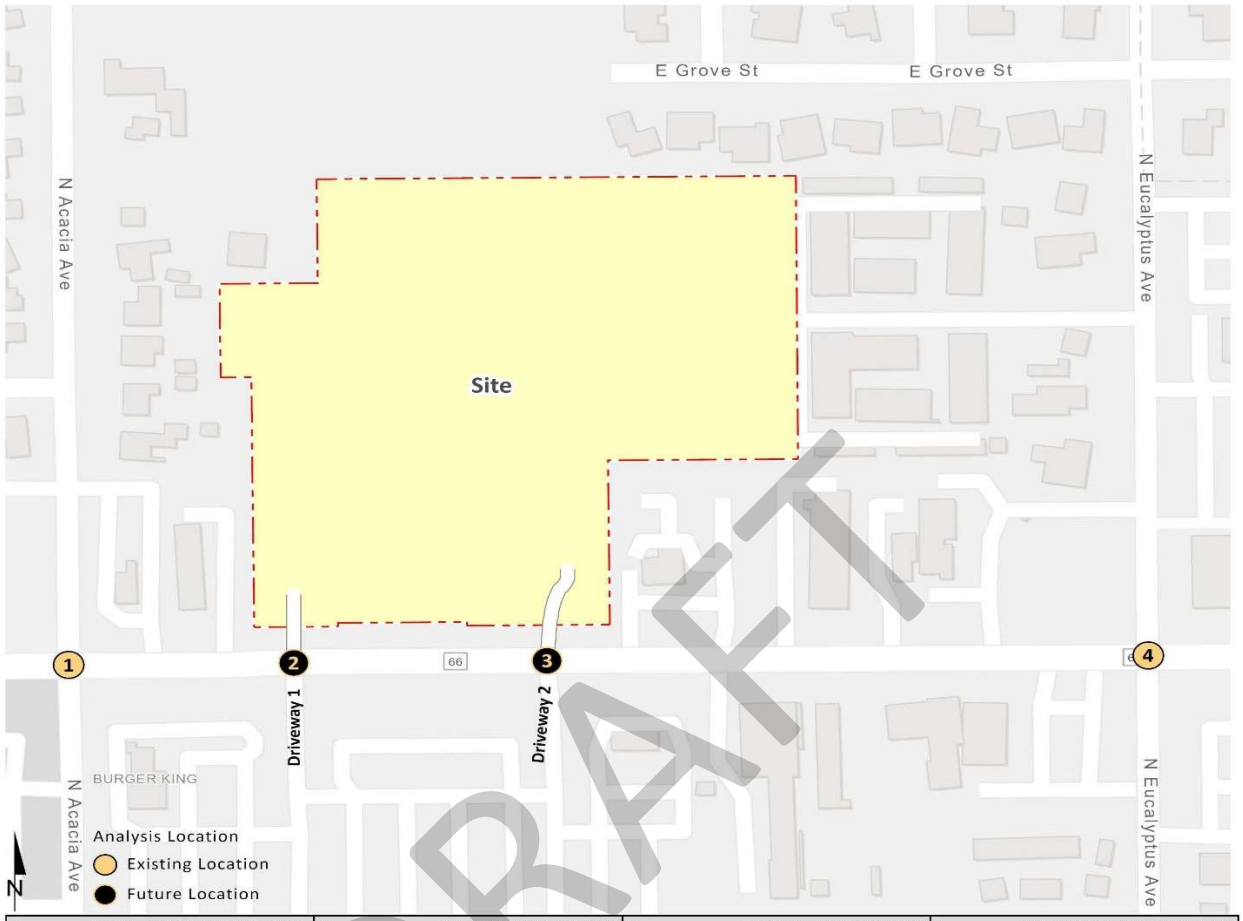
[2] CSS = Cross-street Stop; TS = Traffic Signal

3.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

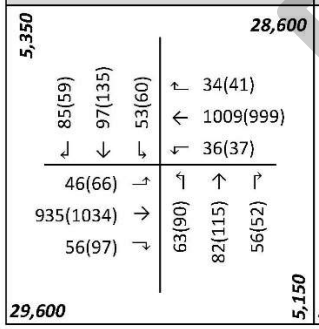
The intersection of Driveway 2 & Foothill Boulevard currently meets a peak hour volume-based traffic signal warrant based on the existing volumes for the shopping center to the south (see Appendix 3.3).

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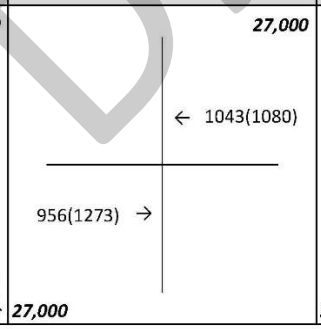
EXHIBIT 3-7: EXISTING (2021) TRAFFIC VOLUMES



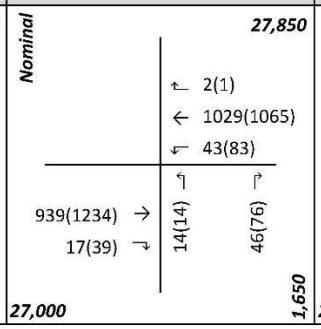
1 Acacia Ave & Foothill Blvd.



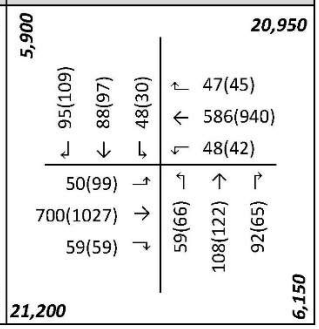
2 Driveway 1 & Foothill Blvd.



3 Driveway 2 & Foothill Blvd.



4 Eucalyptus Ave & Foothill Blvd.



##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

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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 204 multifamily (mid-rise, 3-10 floor) residential dwelling units. It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2024. Access to the Project site will be provided to Foothill Boulevard via two proposed driveways.

4.1 PROJECT TRIP GENERATION

4.1.1 PROPOSED PROJECT

The trip generation rates are sourced from the ITE Trip Generation Manual (10th Edition, 2017) for the Multifamily (Mid-Rise, 3-10 Floor) Residential (ITE Land Use Code 221) land use. (4) Table 4-1 presents the trip generation rates. The resulting trip generation summary for the proposed Project are shown on Table 4-2. As shown in Table 4-2, the Project is anticipated to generate a total of 1,110 trip-ends per day with 73 AM peak hour trips and 90 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION RATES

Land Use[1]	ITE LU Code	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Trip Generation Rates:									
Multifamily Housing (Mid-Rise) (3-10 floors)	221	DU	0.09	0.27	0.36	0.27	0.17	0.44	5.44

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] DU = Dwelling Units

TABLE 4-2: PROJECT TRIP GENERATION SUMMARY

Project	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Project Trip Generation Summary:									
Rialto 8-Acre Residential	204	DU	19	54	73	55	35	90	1,110

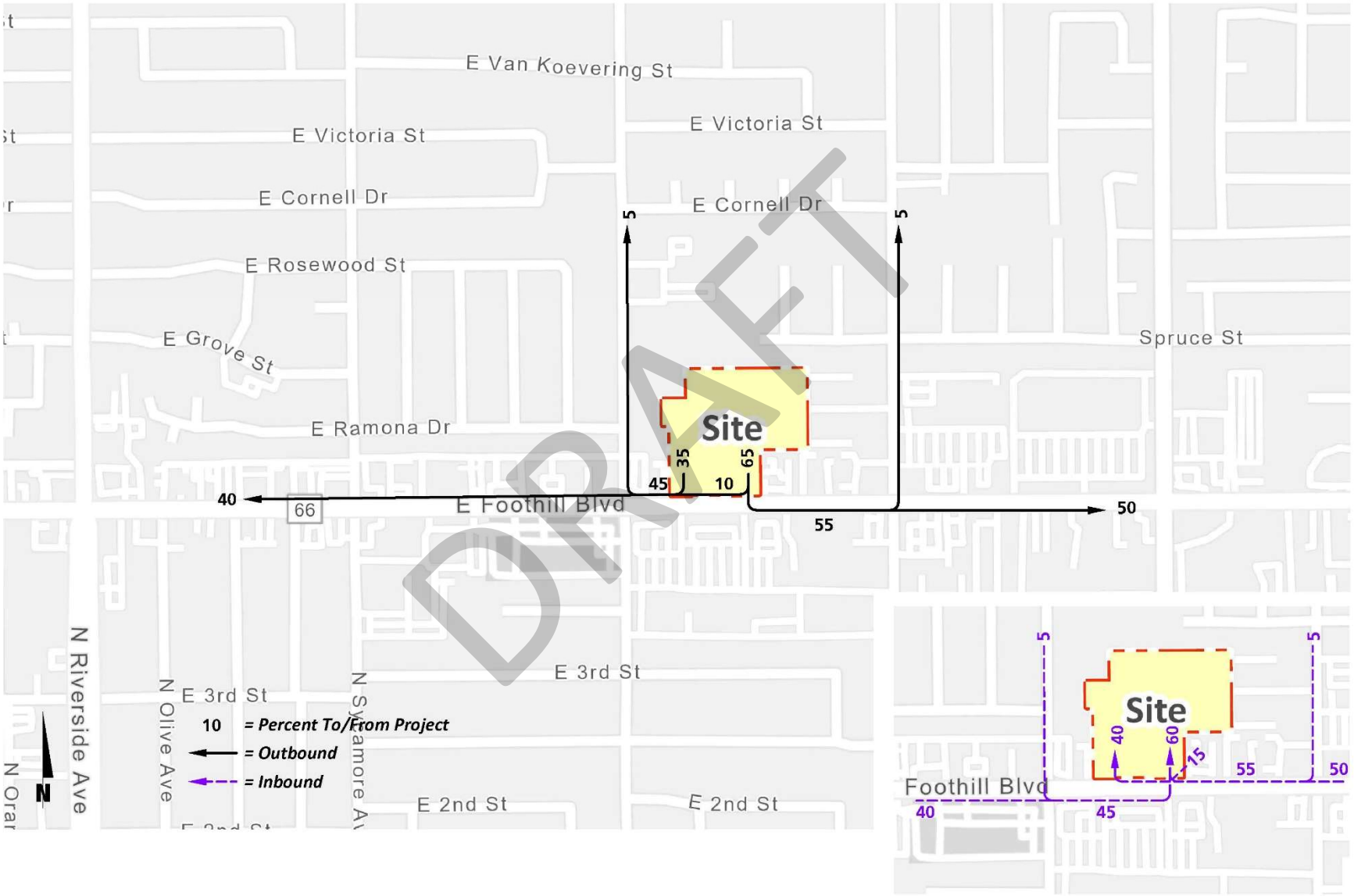
[1] DU = Dwelling Units

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute. Distribution patterns are based on existing and planned land uses in the area along with the planned circulation system. Exhibit 4-1 illustrates the trip distribution patterns for the Project.

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EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION



4.3 MODAL SPLIT

The potential for Project trips 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 (non-truck trips only).

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 Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

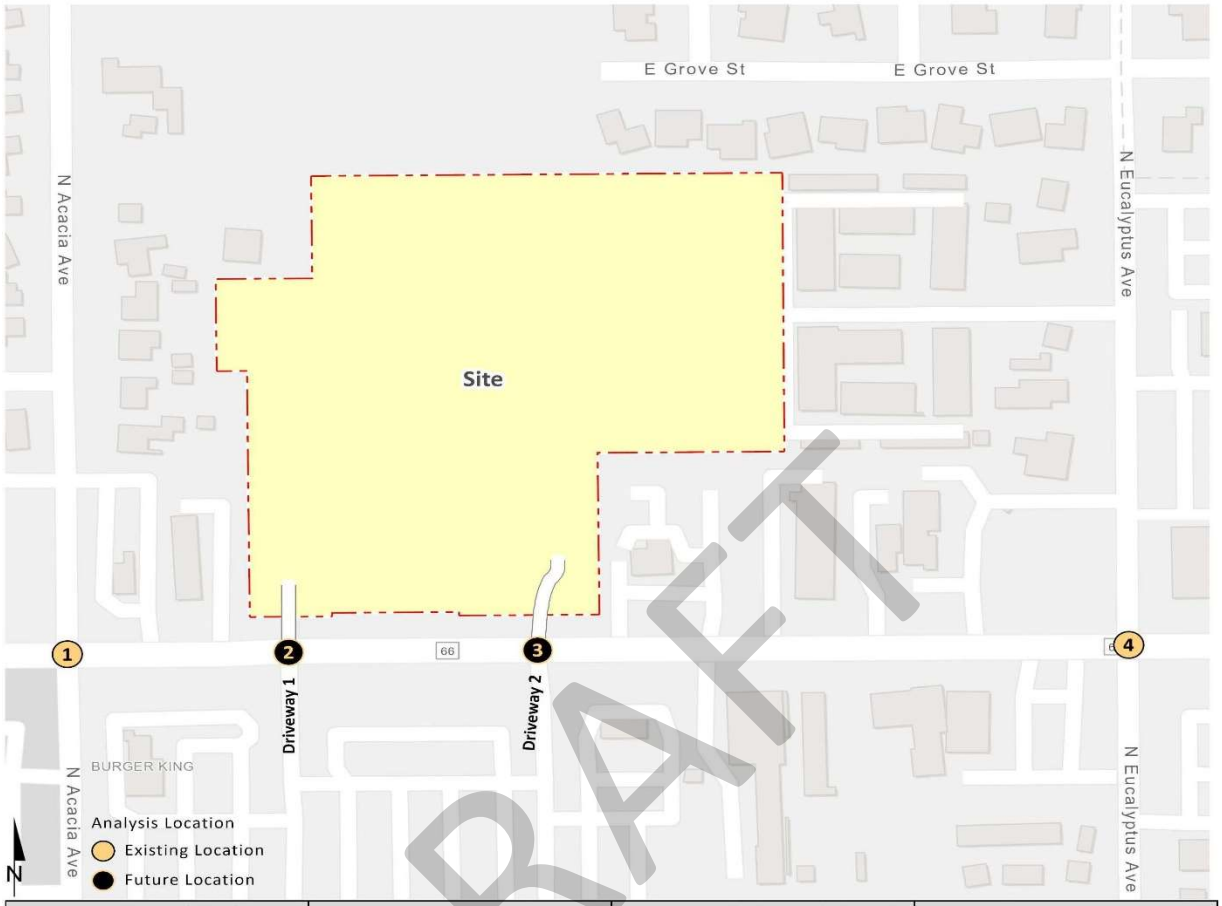
Future year traffic forecasts have been based upon background (ambient) growth at 2.0% per year. The total ambient growth is 2.0% for 2024 traffic conditions (growth over 2 years). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing 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. The traffic generated by the proposed Project is manually added to the base volume to determine EAP/EAPC forecasts.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- EAP (2024)
    - Adjusted Existing 2021 volumes
    - Ambient growth traffic (6.12%)
    - Project Traffic
- EAPC (2024)
    - Adjusted Existing 2021 volumes
    - Ambient growth traffic (6.12%)
    - Cumulative Development traffic
    - Project Traffic

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EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
Nominal *500*	*400* *550*	*700* *600*	*Nominal* *550*
↰ 3(2) ← 22(14) ↳ 1(3) 8(22) →	↰ 8(22) ← 5(4) ↳ 19(12) 9(25) →	↱ 3(8) ← 8(22) ↳ 5(4) ↳ 30(19) 9(25) →	← 10(28) ↳ 1(3) 3(2) → 27(18) →
450	*500*	*550*	*600*

##(##) AM(PM) Peak Hour Intersection Volumes

***Average Daily Trips***

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4.6 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rialto. The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections. Cumulative projects from the neighboring jurisdictions of City of Fontana and County of San Bernardino have also been included. 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 the EAPC (2024) forecasts to ensure that traffic generated by the listed cumulative development projects on Table 4-3 is reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth identified in Section 4.5 *Background Traffic*. Cumulative ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-4 for near-term traffic conditions.

TABLE 4-3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Project Name	Land Use[1]	Quantity	Units[1]
R1	70 Townhomes	Townhomes	70	DU
R2	Tract 20199	Single Family Residential	56	DU
R3	Spruce Avenue Commerce Center	Warehouse	86.000	TSF
SB1	CUP 20-07, PCN 20-01 & VAR 20-03	Gas Station	8	VFP
		Convenience Store	2.230	TSF
SB2	Rancho and Rialto Truck Yard	Truck and Trailer Parking	14.48	AC

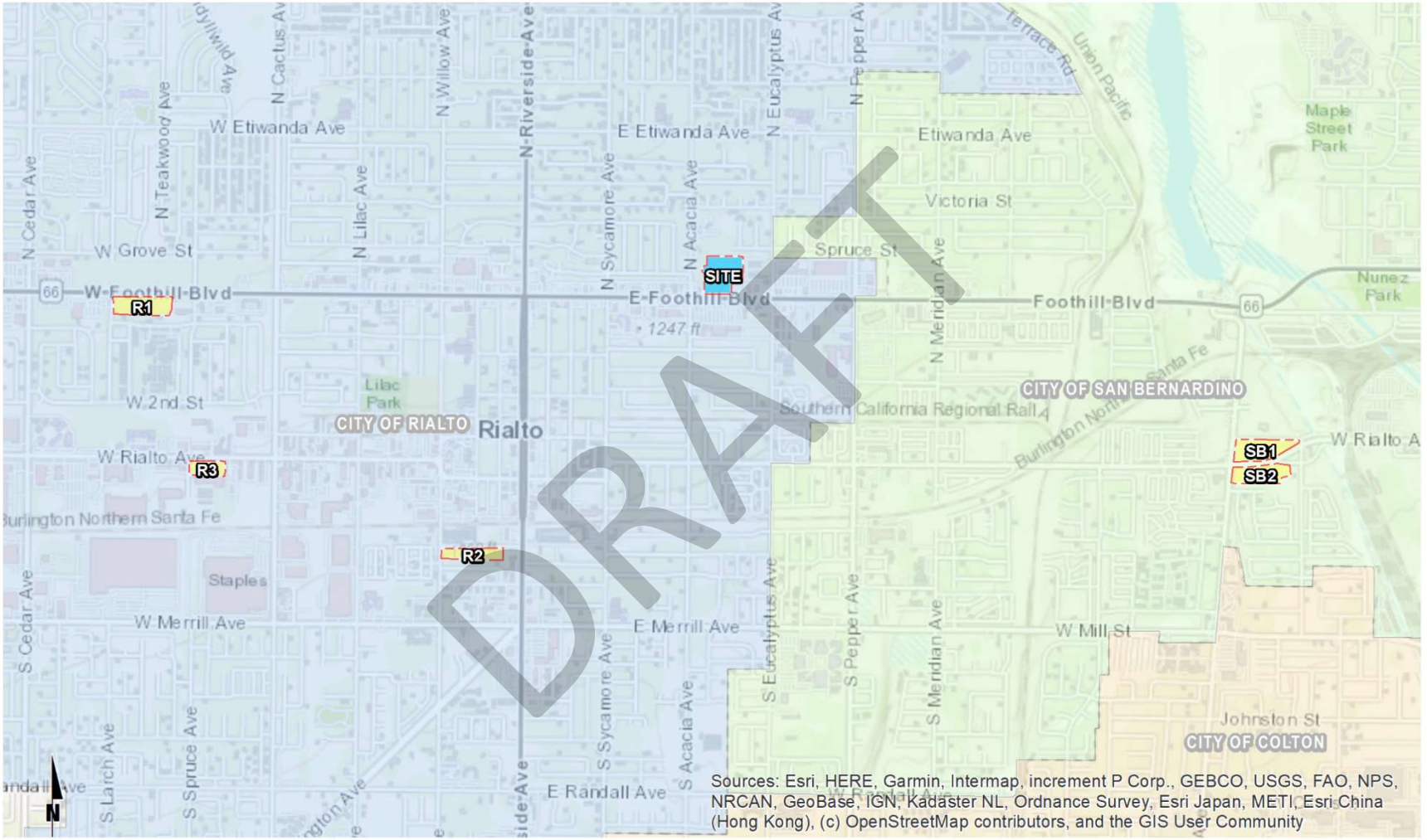
[1] DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions; AC = Acres

4.7 NEAR-TERM CONDITIONS

The "buildup" approach has been utilized which combines existing traffic counts with a background ambient growth factor to forecast the EAP (2024) and EAPC (2024) traffic conditions. An ambient growth factor of 6.12% accounts for background (area-wide) traffic increases that occur over time up to the year 2024 from the year 2021 (two percent over a 3-year period). Project traffic is added to assess EAP (2024) and EAPC (2024) traffic conditions, respectively. Traffic volumes generated by cumulative development projects are included to assess the EAPC (2024) traffic conditions. The 2024 roadway networks are similar to the existing conditions roadway network with the exception of future intersections and driveways proposed to be developed by the Project.

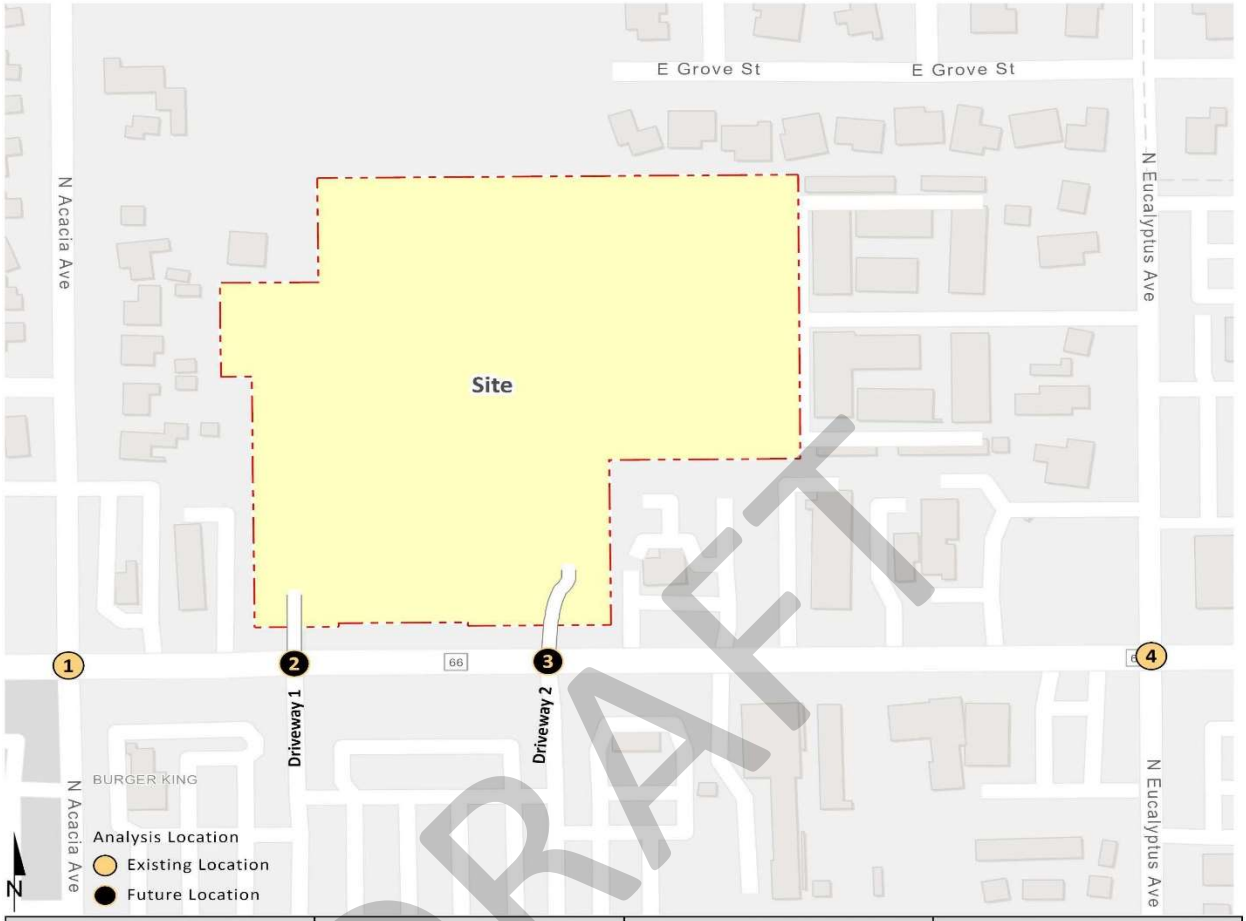
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EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP



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EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES



1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
2,800	***2,800***	***2,800***	***2,800***
← 41(61)	← 41(61)	← 41(61)	← 41(61)
56(54) →	56(54) →	56(54) →	56(54) →
1,400	***1,400***	***1,400***	***1,400***

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

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5 EAP (2024) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Ambient Growth plus Project (EAP) conditions and the resulting intersection operations analysis.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EAP (2024) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12% and the addition of Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAP (2024) traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

EAP (2024) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized on Table 5-1 for EAP (2024) traffic conditions, which shows the following study area intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

The intersection operations analysis worksheets for EAP (2024) traffic conditions are included in Appendix 5.1 of this TA.

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TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2024) CONDITIONS

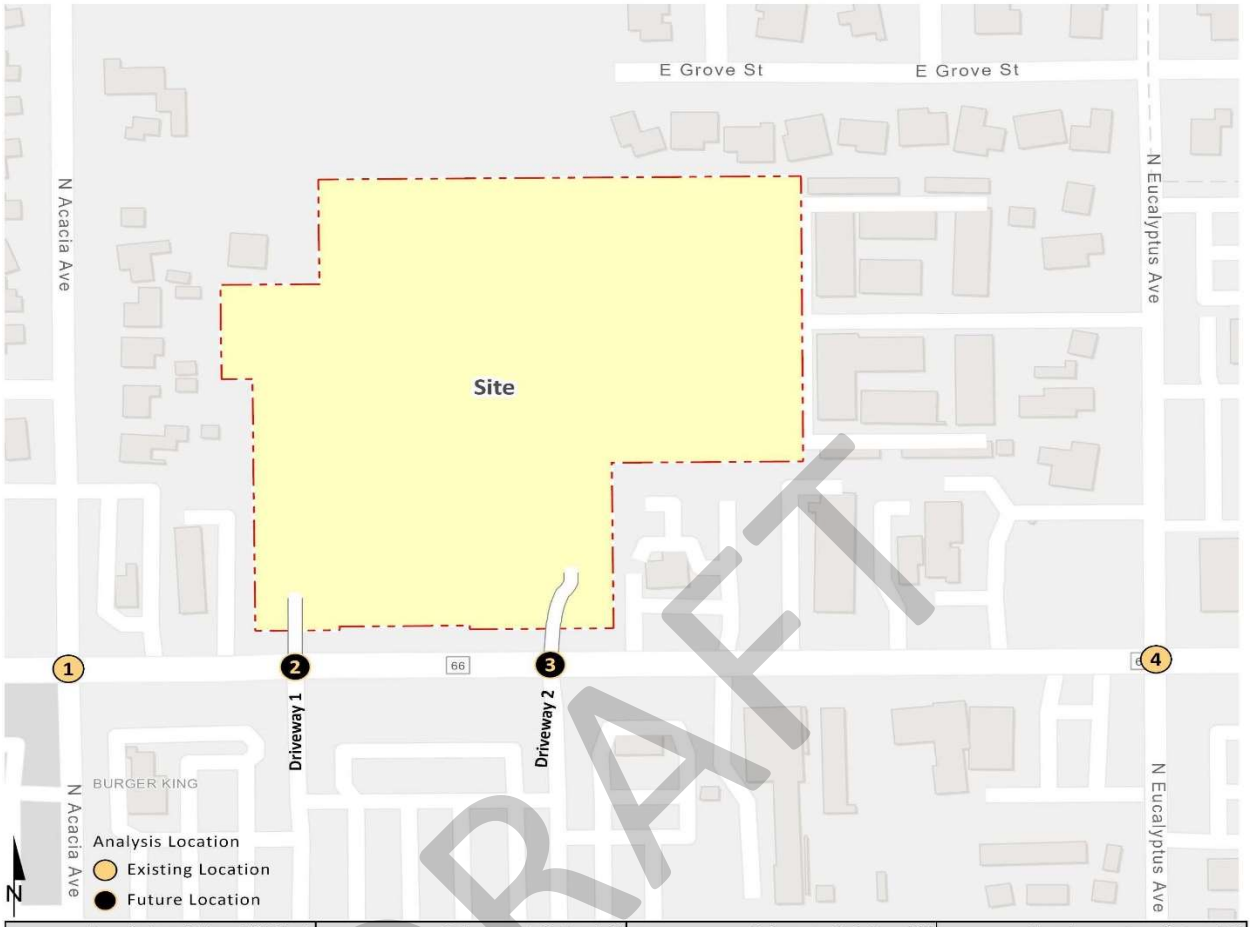
#	Intersection	Traffic Control[2]	Existing (2021) Delay[1] (secs.) AM	Existing (2021) Delay[1] (secs.) PM	Existing (2021) Level of Service AM	Existing (2021) Level of Service PM	EAP (2024) Delay[1] (secs.) AM	EAP (2024) Delay[1] (secs.) PM	EAP (2024) Level of Service AM	EAP (2024) Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	16.1	15.0	A	B	18.2	16.0	B	B
2	Driveway 1 & Foothill Blvd.	CSS	ersection	0.0	0.0	0.0	13.7	13.8	B	B
3	Driveway 2 & Foothill Blvd.	CSS	18.3	26.2	C	D	**35.5**	**44.4**	**E**	**E**
4	Eucalyptus Ave. & Foothill Blvd.	TS	12.8	13.4	B	B	13.0	13.8	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

[2] CSS = Cross-street Stop; TS = Traffic Signal

EXHIBIT 5-1: EAP (2024) TRAFFIC VOLUMES



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1 Acacia Ave & Foothill Blvd.	2 Driveway 1 & Foothill Blvd.	3 Driveway 2 & Foothill Blvd.	4 Eucalyptus Ave & Foothill Blvd.
4,700 / 25,050	400 / 24,500	700 / 26,200	6,050 / 24,550
90(62) ↲ 103(143) ↓ 57(66) ↳	19(12) ↲	5(4) ↲ 30(19) ↳	101(119) ↲ 93(103) ↓ 51(32) ↳
↱ 39(45) ← 1093(1074) ↰ 38(39)	↱ 8(22) ← 1112(1158)	↱ 6(10) ← 1100(1153) ↰ 46(88)	↱ 50(48) ← 631(1026) ↰ 51(44)
49(71) ↳ 1000(1119) → 59(103) ↲	1024(1379) →	9(25) ↳ 997(1310) → 18(41) ↲	56(107) ↳ 770(1108) → 62(62) ↲
↰ 67(96) ↑ 87(122) ↱ 59(55)		↰ 15(15) ↱ 49(81)	↰ 62(71) ↑ 115(129) ↱ 98(69)
25,500 / 4,600	24,450	25,000 / 2,200	26,100 / 5,200

##(##) AM(PM) Peak Hour Intersection Volumes

***Average Daily Trips***

5.4 RECOMMENDED IMPROVEMENTS

While the intersection of Driveway 2 & Foothill Boulevard (#3) is anticipated to operate at an unacceptable LOS during EAP (2024) conditions and is warranted for a traffic signal under Existing (2021) conditions, installing a traffic signal or additional lane improvements beyond those to be implemented by the Project, have not been recommended. Installing a traffic signal would improve the intersection to an acceptable LOS and it would serve both the Project as well as the existing commercial retail property to the south, but it is important to note that the deficiency of the intersection is entirely caused by the high side street delays of vehicles waiting to turn onto Foothill Boulevard at the Project driveway (Driveway 2) and the southern property's driveway. The through traffic on Foothill Boulevard will not be affected under EAP (2024) traffic conditions and as delays increase, traffic at these locations may opt to utilize a different driveway (and will operate with acceptable LOS). As such, no improvements have been recommended for the purposes of this TA.

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6 EAPC (2024) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) traffic forecasts, and the resulting intersection operations analysis.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2024) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).

6.2 EAPC (2024) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12% in conjunction with the addition of cumulative project development and Project traffic. The weekday ADT, weekday AM, and PM peak hour volumes which can be expected for EAPC (2024) traffic conditions are shown on Exhibit 6-1.

6.3 INTERSECTION OPERATIONS ANALYSIS

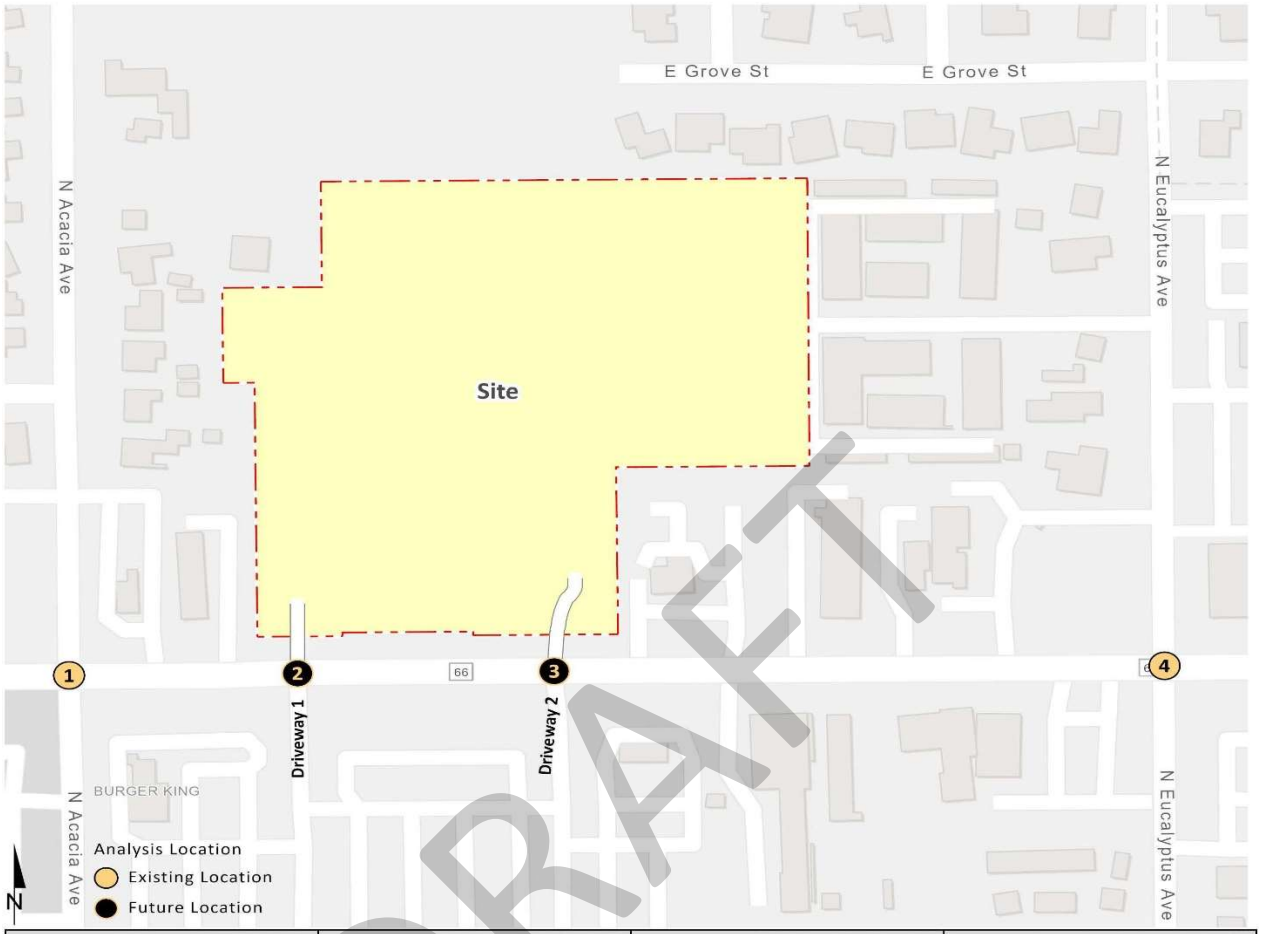
LOS calculations were conducted for the study intersections to evaluate their operations under EAPC (2024) traffic conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersection is anticipated to operate at an unacceptable LOS under EAPC (2024) traffic conditions:

- Driveway 2 & Foothill Boulevard (#3) – LOS E AM and PM peak hours

The intersection operations analysis worksheets for EAPC (2024) traffic conditions are included in Appendix 6.1.

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EXHIBIT 6-1: EAPC (2024) TRAFFIC VOLUMES



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1 Acacia Ave & Foothill Blvd.

4,700 — *27,800*

90(62) ↲	103(143) ↓	57(66) ↳
49(71) →	↰	↑
1056(1173) →	67(96)	87(122)
59(103) ↲		

↱ 39(45)
← 1134(1135)
↰ 38(39)
↱ 59(55)

26,900 — *4,600*

2 Driveway 1 & Foothill Blvd.

400 — *27,300*

19(12) ↲	↱ 8(22)
1080(1433) →	← 1153(1219)

25,850

3 Driveway 2 & Foothill Blvd.

700 — *28,950*

5(4) ↲	30(19) ↳	↱ 6(10)
9(25) →	↰	← 1141(1214)
1053(1364) →	15(15)	↰ 46(88)
18(41) ↲		↱ 49(81)

26,350 — *2,200*

4 Eucalyptus Ave & Foothill Blvd.

6,050 — *27,350*

101(119) ↲	93(103) ↓	51(32) ↳
56(107) →	↰	↑
826(1162) →	62(71)	115(129)
62(62) ↲		

↱ 50(48)
← 672(1087)
↰ 51(44)
↱ 98(69)

27,500 — *5,200*

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2024) CONDITIONS

#	Intersection	Traffic Control[2]	Delay[1] (secs.) AM	Delay[1] (secs.) PM	Level of Service AM	Level of Service PM
1	Acacia Ave. & Foothill Blvd.	TS	19.7	17.1	B	B
2	Driveway 1 & Foothill Blvd.	CSS	14.1	14.3	B	B
3	Driveway 2 & Foothill Blvd.	CSS	38.3	49.1	E	E
4	Eucalyptus Ave. & Foothill Blvd.	TS	13.1	14.1	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), 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. HCM delay reported in seconds.

[2] CSS = Cross-street Stop; TS = Traffic Signal

6.4 RECOMMENDED IMPROVEMENTS

While the intersection of Driveway 2 & Foothill Boulevard (#3) is anticipated to operate at an unacceptable LOS during EAPC (2024) conditions and is warranted for a traffic signal under Existing (2021) conditions, installing a traffic signal or additional lane improvements beyond those to be implemented by the Project, have not been recommended. Installing a traffic signal would improve the intersection to an acceptable LOS and it would serve both the Project as well as the existing commercial retail property to the south, but it is important to note that the deficiency of the intersection is entirely caused by the high side street delays of vehicles waiting to turn onto Foothill Boulevard at the Project driveway (Driveway 2) and the southern property's driveway. The through traffic on Foothill Boulevard will not be affected under EAPC (2024) traffic conditions and as delays increase, traffic at these locations may opt to utilize a different driveway (and will operate with acceptable LOS). As such, no improvements have been recommended for the purposes of this TA.

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7 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.

7.1 CITY OF RIALTO DEVELOPMENT IMPACT FEE PROGRAM

In 2006, the City of Rialto adopted their DIF program incorporating the regional component of Measure I. The fee schedule was updated in June 2020. 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.

7.2 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 the SBCTA 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 2011. 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 SBCTA, 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.

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8 REFERENCES

1. **City of Rialto.** *Draft Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessmetn (LOS).* City of Rialto : s.n., May 2021.
2. **County of San Bernardino.** *Transportation Impact Study Guidelines.* County of San Bernardino : s.n., July 9, 2019.
3. **San Bernardino Associated Governments.** *Congestion Management Program for County of San Bernardino.* County of San Bernardino : s.n., Updated June 2016.
4. **Institute of Transportation Engineers (ITE).** *Trip Generation Manual.* 9th Edition. 2012.
5. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
6. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014.

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Appendix I

Mitigation and Monitoring Reporting Program

Mitigation Monitoring and Reporting Program

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This mitigation monitoring and reporting program (MMRP) is intended to track and ensure compliance with adopted mitigation measures during the project implementation phase. For each mitigation measure recommended in the Initial Study – Mitigated Negative Declaration (IS-MND) for the Rialto Foothill Apartments Project, specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Biological Resources							
BIO-1: Burrowing Owl Pre-construction Clearance Survey							
A qualified wildlife biologist shall conduct a pre-construction survey of proposed impact areas to confirm presence/absence of burrowing owl (BUOW) individuals no more than 14 days prior to construction. The survey methodology will be consistent with the methods outlined in the California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation (2012). If no active breeding or wintering owls are identified, no further mitigation is required. If BUOW is detected onsite, the following mitigation measures shall be implemented in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012): ▪ A qualified wildlife biologist shall be onsite during initial ground-disturbing activities in potential BUOW habitat identified throughout the habitat assessment. ▪ No ground-disturbing activities shall be permitted within a buffer no less than 200 meters (656 feet) from an active burrow, depending on the level of disturbance, unless the qualified biologist determines a reduced buffer would not adversely affect the burrowing owl(s). ▪ Occupied burrows shall not be disturbed during the nesting season (February 1 to August 31). ▪ During the nonbreeding (winter) season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 50 meters (165 feet) from the	Qualified biologist conducts burrowing owl survey	Within 30 days prior to start of construction	Once prior to construction	City of Rialto Community Development Department – Planning Division			
	Qualified biologist prepares reports for burrowing owl survey that indicate: ▪ Presence or absence of burrowing owls, suitable habitat, and burrows ▪ If present, include map of project site with clearly marked buffer zones If burrows cannot be avoided, include plan for passive relocation	Within 30 days prior to start of construction	Once prior to construction	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Com-pliance Verifi-cation Initial	Com-pliance Verifi-cation Date	Com-pliance Verifi-cation Comments
burrow, depending on whether the level of disturbance is low, and if the active burrow is not directly affected by the project activity. A smaller buffer may be established in consultation with CDFW. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be excluded from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (2012). ▪ Burrowing Owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in the CDFW Staff Report on Burrowing Owl Mitigation (2012). Additionally, if burrowing owls are found on site, a qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E of the CDFW's Staff Report on Burrowing Owl Mitigation for CDFW review and approval prior to the commencement of disturbance activities onsite. ▪ Burrowing Owls shall not be excluded from burrows until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in Appendix E of CDFW's Staff Report on Burrowing Owl Mitigation. ▪ Prior to passive relocation, compensatory mitigation at a ratio of 1:1 for lost breeding and/or wintering habitat shall be implemented on- or off-site, including permanent conservation and management of burrowing owl habitat through the recordation of a conservation easement,							

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
funding of a non-wasting endowment, and implementation of a Mitigation Land Management Plan based on the CDFW's Staff Report on Burrowing Owl Mitigation and CDFW guidance. Mitigation lands shall be identified through coordination with CDFW and on, adjacent, or proximate to the impact site where possible and where habitat is suitable to support BUOW. When a qualified biologist determines that BUOW are no longer occupying the Project site and passive relocation is complete, construction activities may begin. A final letter shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.							
BIO-2: Pre-construction Nesting Bird Surveys							
Migratory or other common nesting birds, while not designated as special-status species, are protected by CFGC Sections 3503 and 3503.5 and the federal MBTA and may nest in ornamental trees, grass, bare ground, burrows/cavities, man-made structures and shrubs on site. Construction of the project thus has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and MBTA. The following measure is recommended to maintain compliance with the CFGC Section 3503 and 3503.5 and the MBTA with respect to nesting birds: ▪ If project activities take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions),	Nesting bird survey completed by qualified biologist three days prior to project activities to determine the presence/absence, location, and status of any active nests on site and within 100 feet of the site. If evidence of nesting birds is found, qualified biologist shall determine and mark a construction buffer to prevent and reduce disturbance.	Within three days prior to start of construction	Once prior to start of construction, with weekly monitoring if nesting bird activities observed on-site	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
nesting bird surveys shall be performed by a qualified biologist within three days prior to project activities to determine the presence/absence, location, and status of any active nests on site and within 100 feet of the site. ▪ If nesting birds are found on site, a construction buffer of appropriate size (as determined by the qualified biologist) shall be implemented around the active nests and demarcated with fencing or flagging. If ground/burrow nesting birds are identified, demarcation materials that will not provide perching habitat for predatory bird species shall be used. Nests shall be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is complete, and all the young have fledged and can survive independently of the nest. If project activities must occur within the buffer, they shall be conducted at a distance that will prevent project-related disturbances, as determined by the qualified biologist. ▪ If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.							
Cultural Resources							
CR-1: Unanticipated Discovery of Cultural Resources							
In the event cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's	Halt work and hire an archaeologist meeting the Secretary of Interior's Professional Qualifications Standards for archaeology, if cultural resources	During construction ground-disturbing activities	Ongoing during construction ground-	City of Rialto Community Development Department			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the NRHP or CRHR, additional work such as data recovery excavation and/or Native American consultation to treat the find may be warranted to mitigate any significant impacts to cultural resources.	are encountered to evaluate find, development a resource treatment plan, and complete archaeological testing to develop significance eligibility		disturbing activities	– Planning Division			
	Qualified Archaeologist complete data recovery, Native American consultation, and continue monitoring if significant discovery is determined	During construction ground-disturbing activities	As needed during construction	City of Rialto Community Development Department – Planning Division			
Transportation							
TR-1: Site Access Accommodation							
The following improvements are necessary to accommodate site access. 1. Driveway 1 & Foothill Boulevard: A stop sign shall be installed on the southbound approach and construct a southbound right turn lane. Driveway 1 shall be designed to restrict access to right-in/right-out only. 2. Driveway 2 & Foothill Boulevard: A stop sign shall be installed on the southbound approach and construct a shared left-through-right turn lane. Driveway 2 shall align with an existing driveway on the south side of Foothill Boulevard and shall allow for full access.	Submit site access plans to City of Rialto Department of Public Works (Engineering Division) for review and approval	Prior to issuance of grading permits	Once prior to construction	City of Rialto Public Works Department – Engineering Division			
TR-2: Foothill Boulevard Modification							
Foothill Boulevard is an east-west oriented roadway located along the southern boundary of the project site. Foothill Boulevard shall be constructed to its ultimate half-width as a Modified Major Arterial I (120-foot right-of-way) from the western boundary of the project site to the eastern boundary of the project site, consistent with the City's standards.	Submit site access plans to City of Rialto Department of Public Works (Engineering Division) for review and approval	Prior to issuance of grading permits	Once prior to construction	City of Rialto Public Works Department – Engineering Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Tribal Cultural Resources							
TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities							
A. The project applicant/lead agency shall retain a Native American monitor from (or approved by) the Gabrieleño Band of Mission Indians – Kizh Nation (the "Kizh" or the "Tribe") - the direct lineal descendants of the project location. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project, at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" includes, but is not limited to, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. B. A copy of the executed monitoring agreement shall be provided to the lead agency prior to the earlier of the commencement of any ground-disturbing activity for the project, or the issuance of any permit necessary to commence a ground-disturbing activity. C. The project applicant/developer shall provide the Tribe with a minimum of 30 days advance written notice of the commencement of any project ground-disturbing activity so that the Tribe has sufficient time to secure and schedule a monitor for the project. D. The project applicant/developer shall hold at least one (1) pre-construction	Retain Native American monitor from (or approved by) the Gabrieleño Band of Mission Indians – Kizh Nation	Prior to start of ground disturbing activities	Once prior to construction	City of Rialto Community Development Department – Planning Division			
	Complete tailgate worker training about potential TCRs and mitigation measures	Prior to start of ground disturbing activities	Once prior to construction	City of Rialto Community Development Department – Planning Division			
	Native American monitor must complete daily monitoring logs	For duration of ground disturbing activities	Daily during construction activities	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Com-pliance Verifi-cation Initial	Com-pliance Verifi-cation Date	Com-pliance Verifi-cation Comments
sensitivity/educational meeting prior to the commencement of any ground-disturbing activities, where at a senior member of the Tribe will inform and educate the project's construction and managerial crew and staff members (including any project subcontractors and consultants) about the TCR mitigation measures and compliance obligations, as well as places of significance located on the project site (if any), the appearance of potential TCRs, and other informational and operational guidance to aid in the project's compliance with the TCR mitigation measures. E. The monitor shall complete daily monitoring logs that will provide descriptions of the relevant ground disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request. F. Native American monitoring for the project shall conclude upon the latter of the following: (1) written confirmation from a designated project point of contact to the							

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Tribe that all ground-disturbing activities and all phases that may involve ground-disturbing activities on the project site and at any off-site project location are complete; or (2) written notice by the Tribe to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase (known by the Tribe at that time) at the project site and at any off-site project location possesses the potential to impact TCRs.							
TCR-2: Unanticipated Discovery of Tribal Cultural Resources, Human Remains, and/or Grave Goods							
A. Upon the discovery of a TCR, all construction activities in the immediate vicinity of the discovery (i.e., not less than the surrounding 50 feet) shall cease. The Tribe shall be immediately informed of the discovery, and a Kizh monitor and/or Kizh archaeologist will promptly report to the location of the discovery to evaluate the TCR and advise the project manager regarding the matter, protocol, and any mitigating requirements. No project construction activities shall resume in the surrounding 50 feet of the discovered TCR unless and until the Tribe has completed its assessment/evaluation/recovery of the discovered TCR and surveyed the surrounding area. B. The Tribe shall recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate in its sole discretion, and for any purpose the Tribe deems appropriate, including but not limited to, educational, cultural and/or historic purposes.	Native American monitor will evaluate any discovered cultural or tribal cultural resources, human remains, and/or grave goods.	For duration of ground disturbing activities if resources, human remains, and/or grave good are discovered	During construction activities if resources, human remains, and/or grave good are discovered	City of Rialto Community Development Department – Planning Division			
	Any discoveries of human remains will immediately be reported to the County Coroner.	For duration of ground disturbing activities if resources, human remains, and/or grave good are discovered	During construction activities if resources, human remains, and/or grave good are discovered	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Com-pliance Verifi-cation Initial	Com-pliance Verifi-cation Date	Com-pliance Verifi-cation Comments
C. If Native American human remains and/or grave goods are discovered or recognized on the project site or at any off-site project location, then all construction activities shall immediately cease. Native American "human remains" are defined to include "an inhumation or cremation, and in any state of decomposition or skeletal completeness." (Pub. Res. Code § 5097.98 (d)(1).) Funerary objects, referred to as "associated grave goods," shall be treated in the same manner and with the same dignity and respect as human remains. (Pub. Res. Code § 5097.98 (a), d)(1) and (2).)							
D. Any discoveries of human skeletal material or human remains shall be immediately reported to the County Coroner (Health & Safety Code § 7050.5(c); 14 Cal. Code Regs. § 15064.5(e)(1)(B)), and all ground-disturbing project ground-disturbing activities on site and in any other area where the presence of human remains and/or grave goods are suspected to be present, shall immediately halt and remain halted until the coroner has determined the nature of the remains. (14 Cal. Code Regs. § 15064.5(e).) If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.							
E. Thereafter, construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or grave							

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Com-pliance Verifi-cation Initial	Com-pliance Verifi-cation Date	Com-pliance Verifi-cation Comments
goods, if the Tribe determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Tribal monitor and/or archaeologist deems necessary). (14 Cal. Code Regs. § 15064.5(f).) F. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or grave goods. G. Any historic archaeological material that is not Native American in origin (non-TCRs) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. H. Any discovery of human remains and/or grave goods discovered and/or recovered shall be kept confidential to prevent further disturbance.							
TCR-3: Procedures for Burials, Funerary Remains, and Grave Goods							
A. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented for all discovered Native American human remains and/or grave goods. Tribal Traditions include, but are not limited to, the preparation of the soil for burial, the burial of funerary objects and/or	If human remains and/or grave goods are discovered during ground disturbing activities, identify burial site on-site and make good faith effort to preserve in place.	For duration of ground disturbing activities if resources, human remains, and/or grave good are discovered	During construction activities if resources, human remains,	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Com-pliance Verifi-cation Initial	Com-pliance Verifi-cation Date	Com-pliance Verifi-cation Comments
the deceased, and the ceremonial burning of human remains. B. If the discovery of human remains includes four (4) or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created. C. The prepared soil and cremation soils shall be treated in the same manner as bone fragments that remain intact. Associated "grave goods" (aka, burial goods or funerary objects) are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later, as well as other items made exclusively for burial purposes or to contain human remains. Cremations will either be removed in bulk or by means necessary to ensure complete recovery of all sacred materials. D. In the case where discovered human remains cannot be fully recovered (and documented) on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to divert the project while keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or			and/or grave good are discovered				
	If human remains and/or grave goods are discovered during ground disturbing activities, Qualified Archaeologist shall document all data and provide a report in agreement with Native American monitor and Tribe.	Upon completion of ground disturbing activities	During and after construction activities if resources, human remains, and/or grave goods are discovered	City of Rialto Community Development Department – Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. The site of reburial/repatriation shall be agreed upon by the Tribe and the landowner, and shall be protected in perpetuity.							
F. Each occurrence of human remains and associated grave goods shall be stored using opaque cloth bags. All human remains, grave goods, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items will be retained and shall be reburied within six months of recovery.							
G. The Tribe shall work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.							

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RESOLUTION NO. 21-_

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING PRECISE PLAN OF DESIGN NO. 2021-0043 FOR THE DEVELOPMENT OF A 204-UNIT APARTMENT COMPLEX COMPRISED OF SEVEN THREE-STORY BUILDINGS WITH A MAXIMUM HEIGHT OF 40 FEET. THE PROJECT SITE CONSISTS OF 8.02± ACRES OF LAND (APNS: 0133-171-07, -08, -09, AND -31) LOCATED AT 534 E FOOTHILL BOULEVARD, WHICH IS APPROXIMATELY 200 FEET EAST OF ACACIA AVENUE WITHIN THE RESIDENTIAL-MIXED USE (R-MU) ZONE OF THE FOOTHILL BOULEVARD SPECIFIC PLAN.

WHEREAS, the applicant, Frontier Enterprises, LLC, proposes to construct a 204-unit Apartment Complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a 3,210-square foot leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan; and

WHEREAS, the applicant, Frontier Enterprises, LLC, proposes a variance pursuant to Section 18.64.040 of the Rialto Municipal Code (RMC) to reduce the minimum required parking from 459 parking spaces to 367 parking spaces, as it relates to a proposal to develop a 204-unit apartment complex on 8.02± acres of land (APNs: 0133-174-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) land use district of the Foothill Boulevard Specific Plan.

WHEREAS, the Project will consist of buildings with wood-frame construction and a stucco finish, concrete tile roofing, wood trellises, covered canopies, and articulated building; and

WHEREAS, per Table 3.1 (Permitted Uses) of the Foothill Boulevard Specific Plan, the establishment of an, included in the Project, within the R-MU zone requires a precise plan of design, and the applicant has agreed to apply for a precise plan of design ("PPD No. 2021-0043"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on PPD No. 2021-0043, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed PPD No. 2021-0043; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to PPD No. 2021-0043, 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. 2021-0043 satisfies the requirements of the Table 3.1 (Permitted Uses) of the Foothill Boulevard Specific Plan pertaining to the findings which must be made precedent to granting a conditional development permit, which 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:

APNs: 0133-171-07, -08, -09, and -31, has a zoning designation of R-MU within the Foothill Specific Plan. In accordance with the Table 3.1 (Permitted Uses) of the Foothill Boulevard Specific Plan, the Project, as conditioned herein, will comply with the City ordinances regulations including those of the Residential-Mixed Use (R-MU) zone in the areas of the Site containing the R-MU zoning designations. The R-MU zones allow for the development and operations of a 204-unit Apartment Complex, as proposed by the

Project. Additionally, the Project meets all the required development standards of the R-MU zones including, but not limited to, required building setbacks, parking, landscaping, building height, floor area ratio, etc.

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 project site is a relatively flat, asymmetrical-shaped piece of land comprised of four (4) parcels. The parcels are 8.02± gross acres with approximate dimensions of 689 feet (east-west) by 610 feet (north-south) at the widest extents. The property is undeveloped and covered by vegetation. To the north of the project site is approximately several single-family residences, and to the east is a 48-unit apartment complex and a used car dealership. To the south, across Foothill Boulevard, is the Acacia Plaza shopping center comprised of several structures totaling approximately 87,500 square feet in size, and to the west are several single-family residences and an auto repair facility. The zoning of the project site is Residential-Mixed Use (R-MU) within the Foothill Boulevard Specific Plan. The properties to the north are zoned an assortment of R-MU and Single-Family Residential (R-1C), and the properties to the east are zoned an assortment of R-MU and Multi-Family Residential (R-3). The properties to the south are zoned Commercial Pedestrian (C-P) within the Foothill Boulevard Specific Plan, and the properties to the west are zoned an assortment of R-MU and C-P. The proposed development pertaining to the land division is consistent with the R-MU zoning designation. The most sensitive uses near the project site are the single-family residences to the north and west of the project site. The project is not expected to negatively impact any uses since measures, such as landscape buffering, increased setbacks, and the installation of solid walls, will be implemented. As a result, the Project is not likely to cause any detrimental or injurious problems.

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's effects will be minimized through the implementation of the Conditions of Approval contained herein, such as extensive landscaping, concrete screen walls, decorative paving, and enhanced architectural features. The Site contains 8.02 gross acres, is fairly level, and adjacent to a major public street, all of which will be able to accommodate the proposed use. The Project will have two (2) points of access along Foothill Boulevard. The westerly driveway will be limited to right-in/right-out access only, while the easterly

driveway will have full access through a median break. Each driveway will connect to a drive-aisle system that loops around the interior of the property and around all of the proposed buildings. Access to the driveways will be provided via new half-width street improvements along Foothill Boulevard. In addition, the building will have 367 parking spaces, which is 20 percent below the 459 required parking spaces required under Table 3-4 (Parking Standards) of the Foothill Boulevard Specific Plan and Chapter 18.58 (Off-Street Parking) of the Rialto Municipal Code.

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 is consistent with the R-MU zone of the Specific Plan land use designation and the R-MU zoning designation, and the logical addition to the existing higher density development immediately to the east of the Site. The design of the Project will ensure a continuation of the public improvements and aesthetics present in the surrounding area. The City staff have reviewed the design of the Project to ensure compliance with all health, safety, and design requirements to ensure the Project will enhance the infrastructure and aesthetics of the local community.

SECTION 3. Frontier Enterprises, LLC is hereby granted PPD No. 2021-0043 to allow the development 204-unit Apartment Complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan. SECTION 4. An Initial Study (Environmental Assessment Review No. 2021-0045) has been prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA) and it has been determined that any impacts will be reduced to a level of insignificance and a Mitigated Negative Declaration has been prepared in accordance with CEQA. The Planning Commission hereby adopts the Mitigated Negative Declaration and directs the Planning Division to file the necessary documentation with the Clerk of the Board of Supervisors for San Bernardino County.

SECTION 5. PPD No. 2021-0043 is granted to Frontier Enterprises, 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 204-unit Apartment Complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, located on the north side of Foothill Boulevard approximately 200 feet east of Acacia Avenue, as shown on the plans submitted to the Planning Division on September 10, 2021, 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 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. 2021-0043.

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. In order to provide enhanced building design in accordance with Chapter 18.61 (Design Guidelines) of the Rialto Municipal Code, the applicant shall provide internal roof access only for the building. The internal roof access shall be identified within the formal building plan check submittal prior to the issuance of building permits.

6. The applicant shall construct one (1) ADA accessible trash enclosure on the project site. The trash enclosure shall provide room for one (1) commercial waste container and one (1) commercial recycling container. The exterior of each trash enclosure shall match the material and base color of the building. Additionally, the trash enclosure shall contain solid steel doors and a flat solid cover. Corrugated metal and chain-link are not acceptable materials to use as a part of the trash enclosure. The location of the trash enclosure shall be identified on the site plan within the formal building plan check prior to the issuance of building permits. An elevation detail for the trash enclosure shall be provided within formal building plan check submittal prior to the issuance of building permits.

7. Any tubular steel fencing and/or sliding gates shall be painted black prior to the issuance of a Certificate of Occupancy, unless specified otherwise herein.

8. All non-glass doors shall be painted to match the color of the adjacent wall prior to the issuance of a Certificate of Occupancy.

9. All signage on the building shall comply with Chapter 18.102 (Regulation of Signs and Advertising Structures) of the Rialto Municipal Code.

10. The applicant shall pay all applicable development impact fees in accordance with the current City of Rialto fee ordinance, including any Transportation and Traffic Fair Share Contribution fees, prior to the issuance of any building permit related to the Project.

6. A six (6) foot high decorative block wall shall be constructed along the perimeter of the project site, as approved by the Planning Division.

7. All new walls, including any retaining walls, shall be comprised of decorative masonry block or decorative concrete. Decorative masonry block means tan slumpstone, tan split-face, or precision block with a stucco, plaster, or cultured stone finish. All

decorative masonry walls and pilasters shall include a decorative masonry cap. Decorative concrete means painted concrete with patterns, reveals, and/or trim lines. Pilasters shall be incorporated within all new walls. The pilasters shall be spaced a maximum of fifty (50) feet on-center and shall be placed at all corners and ends of the wall. All pilasters shall protrude a minimum six (6) inches above and to the side of the wall. All walls and pilasters shall be identified on the site plan, and an elevation detail for the walls shall be included in the formal building plan check submittal prior to the issuance of building permits.

8. Any detention basin fencing shall consist of a combination of wrought-iron fencing and decorative masonry block pilasters. Decorative masonry block means tan slumpstone, tan split-face, or precision block with a stucco, plaster, or cultured stone finish. All pilasters shall have a width of at least a minimum of 24 inches by 24 inches. The pilasters shall be spaced a maximum of fifty (50) feet on-center and shall be placed at all corners and ends of the fencing. The fencing and pilasters shall be identified on the Precise Grading Plan prior to the issuance of a grading permit. The fencing and pilasters shall also be identified on the site plan within the formal building plan check submittal prior to the issuance of building permits, and an elevation detail for the fencing and pilasters shall be included within the formal building plan check submittal prior to the issuance of building permits.

9. Decorative pavement shall be provided at all vehicular access points to the site. Decorative pavement means decorative pavers and/or color stamped concrete. The location of the decorative pavement shall be identified on the Precise Grading Plan prior to the issuance of a grading permit, and it shall also be identified on the site plan within the formal building plan check submittal prior to the issuance of building permits. The type of decorative pavement shall be identified on the formal Landscape Plan submittal prior to the issuance of building permits.

10. The exterior of all trash enclosures shall match the color and materials of the buildings on-site. Additionally, the trash enclosure shall contain solid steel doors and a trellis or solid cover. Corrugated metal and chain-link are not acceptable materials to use within the trash enclosure. An elevation detail for the trash enclosures shall be provided within formal building plan check submittal prior to the issuance of building permits.

11. All light standards, including the base, shall be a maximum twenty-five (25) feet high, as measured from the finished surface. Lighting shall be shielded and/or directed toward the site so as not to produce direct glare or "stray light" onto adjacent properties. All light standards shall be identified on the site plan and a note indicating the height restriction shall be included within the formal building plan check submittal prior to the issuance of building permits.

12. One (1) fifteen (15) gallon tree shall be provided every three (3) parking spaces. All parking lot 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.

13. A minimum of one (1) twenty-four (24) inch box tree shall be installed every thirty (30) feet within the on-site landscape setbacks along Foothill Boulevard. All on-site tree species shall consist of evergreen broadleaf trees and/or palm trees. The trees shall be identified on the formal Landscape Plan submittal prior to the issuance of building permits.

14. Parkway treatments shall be provided within the public right-of-way along the entire project frontage of Foothill Boulevard, in accordance with Exhibit 4.7 of the Foothill Boulevard Specific Plan. Twenty-four (24) inch box street trees and sixteen (16) square foot landscaped mesh screens shall be installed within a two and one-half (2 ½) foot wide parkway strip along Foothill Boulevard. The street trees and landscape mesh screens shall be separated by a maximum of twenty (20) feet on center. The street tree species for Foothill Boulevard is the "Muskogee Crape Myrtle". Permeable pavers and color stamped concrete shall be installed within the parkway strip. The parkway treatments shall be identified on the formal Landscape Plan submittal prior to the issuance of building permits.

15. All land not covered by structures, walkways, parking areas, and driveways, unless otherwise specified, shall be planted with a substantial amount of trees, shrubs, and groundcover. Trees shall be spaced a minimum of thirty (30) feet on-center and shrubs and groundcover shall be spaced an average of three (3) feet on-center or less. 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 building permits.

16. 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.

17. All downspouts on all elevations of the building shall be routed through the building. The internal downspouts shall be identified within the formal building plan check submittal prior to the issuance of building permits.

18. All wrought-iron fencing and sliding gates shall be painted black prior to the issuance of a Certificate of Occupancy.

19. All non-glass doors shall be painted to match the color of the adjacent wall prior to the issuance of a Certificate of Occupancy.

20. 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.

21. 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.

22. Enter into a fee credit/reimbursement agreement for frontage improvements required of this Project.

23. A single master Off-site Construction Permit is required for any street, wet utility, landscape and irrigation, and traffic signal improvements within the public right-of-way. To expedite and facilitate improvements in the public right-of-way, the applicant is responsible for submitting a multi-phase master plan traffic control plan which includes all phases of construction in the public right-of-way i.e., sewer, water, overhead, underground, etc. prior to the issuance of an Off-site Construction Permit. Note, to simplify the permitting process, a single master Off-Site Construction Permit shall replace individual Encroachment Permits to be pulled by the developer's contactor.

24. 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. The plans shall be approved by the City Engineer prior to issuance of any building permits.

25. 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, and prior to issuance of a building permit. Approved traffic striping and signage plans must include required Class II thermoplastic Bicycle Facilities as referenced on the San Bernardino County Non-Motorized Transportation Plan – June 2018, Figure 5.36, Sheet 5-150.

26. GENERAL: 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 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. 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, prior to issuance of a building permit. 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.

27. 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. Any landscaping that fails during the one-year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer and shall be subject to a subsequent one-year landscape maintenance period. 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.

28. All proposed trees within the public right-of-way and within 10 feet of the public sidewalk and/or curb shall have City approved deep root barriers installed, as required by the City Engineer.

29. The applicant shall comply with all conditions of approval placed upon PPD No. 2021-0043.

30. The applicant shall provide an illuminated address prominently placed on the front of each dwelling unit, prior to the issuance of a Certificate of Occupancy.

31. 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.

32. The applicant shall complete and abide by all mitigation measures contained within the Mitigation Monitoring and Reporting Program associated with Environmental Assessment Review No. 2021-0045 prior to issuance of any Certificate of Occupancy.

33. The applicant shall secure the services of a tribal cultural monitor to be present during all ground disturbance activities associated with the construction of this project. The tribal cultural monitor shall be approved by the Gabrieleño Band of Mission Indians-Kizh Nation, and documentation of coordination between the applicant and the Gabrieleño Band of Mission Indians-Kizh Nation on this matter shall be provided to the Planning Division prior to the issuance of a grading permit.

34. All improvements within the public right-of-way require a City of Rialto Encroachment Permit.

35. The applicant shall apply and complete the Special District Annexation for the public street lighting and the public landscape and irrigation, including applicable easement areas, parkway areas, and raised medians along the property frontage, as determined by the City Engineer, prior to the issuance of the Grading/On-site Construction Permit.

36. A City of Rialto Off-site Construction Permit is required for any improvements within the public right-of-way. In an effort to expedite and facilitate improvements in the public right-of-way, the applicant is responsible for submitting a multi-phase master plan traffic control plan which includes all phases of construction in the public right-of-way i.e. sewer, water, overhead, underground, etc. prior to the issuance of Off-Site Construction Permit/Encroachment Permit. Note, in an effort to simplify the permitting process, a single master Off-Site Construction Permit shall replace individual Encroachment Permits to be pulled by the applicant's contractor.

37. At the discretion of the City Engineer, the applicant shall apply for annexation of the underlying property into City of Rialto Landscape and Lighting Maintenance District No. 2 ("LLMD 2") or enter into a landscape maintenance agreement to be recorded on the property. 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, parkway, and/or easement landscaping, or any new public street lighting improvements, to be maintained by the City of Rialto.

38. The applicant shall submit off-site landscaping and irrigation system improvement plans for review and approval at the time of first (1st) public improvement plan submittal to the Public Works Department. The parkway irrigation system shall be separately metered from the on-site private irrigation to be maintained for a period of one (1) year and annexed into a Special District. The off-site landscape and irrigation plans must show separate electrical and water meters to be annexed into the Landscape and Lighting Maintenance District No. 2 via a City Council Public Hearing, if required by the City Engineer. The landscape and irrigation plans shall be approved concurrently with the street improvement plans, including the median portion, prior to issuance of a building permit. The landscaping architect must contact the City of Rialto Landscape Contract Specialist at (909) 772-2635 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.

39. If the property is accepted in the LLMD, the applicant shall guarantee all new parkway landscaping irrigation for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one-year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer and shall be subject to a subsequent one year landscape maintenance period. The applicant must contact the City of Rialto Landscape Contract Specialist at (909)

772-2635 to confirm a full twelve (12) months' time of non-interrupted ongoing maintenance.

40. If feasible and in conformance to the requirements of the approved Traffic Impact Analysis, construct a new traffic signal on Foothill Blvd at the proposed easterly entrance into the complex. The traffic signal will control traffic on Foothill Blvd, the new entrance, and the existing commercial on the south side of Foothill Blvd. The location will be designed as an intersection with standard curb returns and curb ramps for full pedestrian movements. Provide crosswalks where feasible. Dedicate additional right of way for curb returns and easements for traffic signal equipment as necessary. Coordinate with property owners for commercial properties on the south side of Foothill Blvd as necessary and to the extent feasible.

41. If the City Engineer determines that construction of the traffic signal described above is not feasible, construct a median opening to allow westbound traffic to enter the main driveway and east bound traffic to enter the exiting commercial driveway on the south side of Foothill opposite the main driveway. The main driveway shall be designed in conformance to City Standard Plan SC-214 with a five feet wide sidewalk, minimum.

42. FOOTHILL BLVD: Modify the striping to provide for the raised median and to the extent feasible, perpetuate three westbound lanes from Eucalyptus Ave to four hundred feet west of Acacia Ave. Modify traffic signal detector loops and/or video action cameras as necessary.

43. If feasible and in conformance to the requirements of the approved Traffic Impact Analysis, construct a new traffic signal on Foothill Blvd at the proposed easterly entrance into the complex. The traffic signal will control traffic on Foothill Blvd, the new entrance and the existing commercial on the south side of Foothill Blvd. The location will be designed as an intersection with standard curb returns and curb ramps for full pedestrian movements. Provide crosswalks where feasible. Dedicate additional right of way for curb returns and easements for traffic signal equipment as necessary. Coordinate with property owners for commercial properties on the south side of Foothill Blvd as necessary and to the extent feasible.

44. If the City Engineer determines that construction of the traffic signal described above is not feasible, construct a median opening to allow westbound traffic to enter the main driveway and east bound traffic to enter the exiting commercial driveway on the south side of Foothill opposite the main driveway. The main driveway shall be designed in conformance to City Standard Plan SC-214 with a five feet wide sidewalk, minimum.

45. FOOTHILL BLVD: Modify the striping to provide for the raised median and to the extent feasible, perpetuate three westbound lanes from Eucalyptus Ave to four hundred feet west of Acacia Ave. Modify traffic signal detector loops and/or video action cameras as necessary.

46. Install a 4-inch conduit within the parkway area along the entire frontage of the property for future use.

47. Install Class II thermoplastic Bicycle Facilities as refenced in the San Bernardino County Non-Motorized Transportation Plan – May 2014, Figure 5.41 along the entire project frontage.

48. OMNITRANS: The developer shall be responsible for coordinating with Omnitrans regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The developer shall design street and sidewalk improvements in accordance with the latest Omnitrans bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act (ADA) requirements. The developer shall design all bus stops to accommodate the Omnitrans Premium Shelters. Prior to Certificate of Occupancy, the developer shall submit to Public Works verification from Omnitrans acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines. Additionally, bus turnouts are required to accommodate proposed bus stops in accordance with the City Standards and as approved by the City Engineer.

49. FOOTHILL BLVD: Dedicate additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way of 60 feet north of centerline in accordance with the City General Plan and/or any applicable Specific Plan.

50. FOOTHILL BLVD: If dedication of additional right-of-way as may be required to provide a property line – corner cutback for a traffic signal design at the corner of the Foothill Blvd and the main entrance. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance, as required by the City Engineer.

51. FOOTHILL BLVD: Construct an 8-inch curb and gutter along the entire frontage 48 feet north of centerline in accordance with City of Rialto Standard Drawings and the General Plan or applicable Specific Plan.

52. FOOTHILL BLVD: Remove existing and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire half-width street frontage 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 the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve existing pavement improvements.

53. FOOTHILL BLVD: Construct Americans with Disabilities Act (ADA) and California Building Code compliant sidewalk improvements 6.5 feet wide located behind curb along the entire frontage in accordance with the General Plan, any applicable Specific Plan and the City of Rialto Standard Drawings. Join the existing non-compliant sidewalk, if any, outside the project frontage. Place new fire hydrants, street lights and aboveground utility risers and cabinets behind the sidewalk.

54. FOOTHILL BLVD: Construct a commercial driveway approach in accordance with City of Rialto Standard Drawing No. SC-214. The driveway approach shall be constructed so the top of "X" is at least 5 feet from the property line, or as otherwise approved by the City Engineer. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance. If necessary, additional right of way shall be dedicated on-site to construct a path of travel meeting ADA guidelines for the public.

55. FOOTHILL BLVD: Construct a new underground electrical system for public street lighting improvements. New marbelite street light poles with LED light fixtures shall be installed in accordance with City of Rialto Standard Drawings and as approved by the City Engineer. Provide 2" conduit and pull boxes along the opposite side of the street for continuation of the street light system for future built out.

56. Construct a 16-foot wide raised and landscaped median island along frontage of property, in accordance with City Standards and any applicable Specific Plan as approved by the City Engineer. The raised median shall extend from the easterly property line to Acacia Avenue intersection. The median nose width shall be constructed at 4 feet wide and shall have stamped concrete. The left turn pockets shall be designed in accordance with Section 405 of the current edition of the Caltrans Highway Design Manual, and/or as approved by the City Engineer.

57. 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. R8-2010-0036. 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.

58. The minimum pavement section for all on-site pavements shall be 2 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.

59. The developer shall connect to the City of Rialto sewer system and apply for a sewer connection account with Rialto Water services.

60. Submit sewer improvement plans prepared by a California registered civil engineer to the Engineering Division. The plans shall be approved by the City Engineer prior to issuance of any building permits.

61. Prior to issuance of a certificate of occupancy or final City approvals, provide certification from Rialto Water Services to demonstrate that all water and/or wastewater service accounts have been documented.

62. The developer is advised that domestic water service is provided by Rialto Water District. The developer shall be responsible for coordinating with water purveyor and complying with all requirements for establishing domestic water service to the property.

63. Submit a Precise Grading Plan prepared by a California registered civil engineer to the Engineering Division that conforms to requirements of the California Building Code for review and approval. The Precise Grading Plan shall be approved by the City Engineer prior to issuance of a building permit.

64. Submit a 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. 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. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.

65. A Notice of Intent (NOI) to comply with the California General Construction Stormwater Permit (Water Quality Order 2009-0009-DWQ as modified September 2, 2009) 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 prior to issuance of a grading or building permit

66. The applicant shall install City Engineer approved deep root barriers, in accordance with the Public Works Landscape and Irrigation Guidelines, for all trees installed within ten (10) feet of the public sidewalk and/or curb.

67. All new streetlights shall be installed on an independently metered, City-owned underground electrical system. The developer shall be responsible for applying with Southern California Edison ("SCE") for all appropriate service points and electrical meters. 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.

68. The applicant shall submit a Geotechnical/Soils Report, prepared by a California registered Geotechnical Engineer, for and incorporated as an integral part of the grading plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Public Works Engineering Division with the first submittal of the Precise Grading Plan.

69. The applicant shall provide pad elevation certification for all building pads, in conformance with the approved Precise Grading Plan, to the Engineering Division prior to construction of any building foundation.

70. 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 in the course of the review and approval of street improvement plans required by these conditions.

71. 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. Unless the City Engineer provides prior authorization, paving of streets in one lift prior to completion of on-site construction is not allowed. If City Engineer authorized, completion of asphalt concrete paving for streets prior to completion of on-site construction activities, requires 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.

72. 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.

73. The applicant shall backfill and/or repair all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development, in accordance with City of Rialto Standard Drawings. The applicant shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets 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 resulting from 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.

74. 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.

75. The applicant shall reconstruct any broken, chipped, or unsatisfactory sidewalks or curbs along the entire project frontage, in accordance with the General Plan and the City of Rialto Standard Drawings, as required by the City Engineer, prior to the issuance of a Certificate of Occupancy.

76. The applicant shall provide construction signage, 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.

77. Upon approval of any improvement plan by the City Engineer, the applicant shall provide the improvement plan to the City in digital format, 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.

78. The applicant shall construct 4-inch conduit within the parkway area along the entire project frontage of Foothill Boulevard or future use.

79. The applicant shall dedicate additional right-of-way along the entire frontage of Foothill Boulevard, as necessary, to provide the ultimate half-width of 60 feet, as required by the City Engineer.

47. The applicant shall submit traffic and signage improvement plans by a registered California civil engineer to the Public Works Engineering Division for review. The plans shall be approved by the City Engineer prior to the issuance of building permits.

48. The applicant shall submit copies of approved water improvement plans prepared by a registered California civil engineer to the Public Works Engineering Division for record purposes. The plans shall be approved by Rialto Water District, the water purveyor, prior to the issuance of building permits.

49. The applicant shall submit a Precise Grading/Paving Plan prepared by a California registered civil engineer to the Public Works Engineering Division for review and

approval. The Grading Plan shall be approved by the City Engineer prior to the issuance of building permits.

50. The applicant shall submit a wet-signed and stamped Earthwork Cut and Fill Certification Letter prepared by a Civil Engineer registered in the State of California to the Public Works Engineering Division for review.

51. The applicant shall provide pad elevation certification for all building pads, in conformance with the approved Precise Grading Plan, to the Engineering Division prior to construction of any building foundation.

52. The applicant shall install underground all existing 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 the site, in accordance with Chapter 15.32 of the Rialto Municipal Code. Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving 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.

53. The minimum pavement section for all on-site pavements shall be two (2) 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.

54. At the discretion of the City Engineer, the applicant shall remove existing pavement and construct new pavement with a minimum pavement section of 4 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire frontage of Foothill Boulevard in accordance with City of Rialto Standard Drawings. The pavement section shall be determined using a Traffic Index ("TI") of 6. The 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. Pavement shall extend from clean sawcut edge of pavement at centerline of each street.

55. The applicant shall construct 4-inch conduit within the parkway area along the entire project frontages of Foothill Boulevard for future use, prior to the issuance of a Certificate of Occupancy.

56. The applicant shall dedicate additional right-of-way along the entire frontage of Foothill Boulevard, as necessary, to provide the ultimate half-width of 44 feet, as required by the City Engineer.

57. The applicant shall construct one (1) new thirty (40) foot wide commercial driveway approach connected to Foothill Boulevard, in accordance with City of Rialto Standard Drawings, or as otherwise approved by the City Engineer. Nothing shall be constructed or planted in the corner cut-off area which does exceed or will exceed 30 inches in height in order to maintain an appropriate corner sight distance, as required by the City Engineer.

58. The applicant shall construct a curb ramp meeting current California State Accessibility standards at the frontage of Foothill Boulevard and a new commercial driveways, in accordance with the City of Rialto Standard Drawings. The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveways, 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.

59. The applicant shall construct a 5-foot-wide sidewalk located adjacent to the curb along the entire project frontages of Foothill Boulevard, in accordance with City of Rialto Standard Drawings.

60. The applicant shall construct an 8-inch curb and gutter located 40 feet east of the centerline along the entire frontage of Foothill Boulevard, in accordance with City of Rialto Standard Drawings.

61. At the discretion of the City Engineer, the applicant shall remove existing pavement and construct new pavement with a minimum pavement section of 4 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire frontages of Foothill Boulevard in accordance with City of Rialto Standard Drawings. The pavement section shall be determined using a Traffic Index ("TI") of 6. The 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. Pavement shall extend from clean sawcut edge of pavement at centerline of each street.

62. The applicant shall install "No Stopping Anytime" R26A(S)(CA) signage along the entire project frontage of Foothill Boulevard, as required by the City Engineer.

63. The applicant shall replace all damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and streetlights, associated with the proposed Project shall be replaced as required by the City Engineer prior to issuance of a Certificate of Occupancy.

64. The applicant shall reconstruct any broken, chipped, or unsatisfactory sidewalks or curbs along the entire project frontage, in accordance with the General Plan and the City of Rialto Standard Drawings, as required by the City Engineer, prior to the issuance of a Certificate of Occupancy.

65. The applicant shall provide construction signage, 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.

66. The applicant shall connect the project to the City of Rialto sewer system and apply for a sewer connection account with Rialto Water Services.

67. Domestic water service to the underlying property is provided by Rialto Water District. The applicant shall be responsible for coordinating with Rialto Water District and complying with all requirements for establishing domestic water service to the property. The design must include fire hydrants along Foothill Boulevard.

68. The applicant shall install a new domestic water line lateral connection to the main water line within Foothill Boulevard, pursuant to the Rialto Water District requirements. A water line plan shall be approved by Rialto Water Services prior to the issuance of building permits.

69. The applicant shall provide certification from Rialto Water Services District that demonstrates that all water and/or wastewater service accounts for the project are documented, prior to the issuance of a Certificate of Occupancy or final inspection approval from the Public Works Engineering Division.

70. The applicant shall submit a 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. 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. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer. The 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. R8-2010-0036. Pursuant to the NPDES Permit, the Applicant 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 Applicant 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.

71. Prior to issuance of a certificate of occupancy or final City approvals, the applicant shall demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.

72. 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. All on-site and off-site designs must comply with NPDES stormwater regulations.

73. 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.

74. The applicant shall adhere to the City Council approved franchise agreements and disposal requirements during all construction activities, in accordance with Section 8.08 (Refuse Collection of the City of Rialto Municipal Code).

75. FOOTHILL BLVD: Construct Americans with Disabilities Act (ADA) and California Building Code compliant sidewalk improvements 6.5 feet wide located behind curb along the entire frontage in accordance with the General Plan, any applicable Specific Plan and the City of Rialto Standard Drawings. Join the existing non-compliant sidewalk, if any, outside the project frontage. Place new fire hydrants, street lights and aboveground utility risers and cabinets behind the sidewalk.

76. FOOTHILL BLVD: Construct a commercial driveway approach in accordance with City of Rialto Standard Drawing No. SC-214. The driveway approach shall be constructed so the top of "X" is at least 5 feet from the property line, or as otherwise approved by the City Engineer. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance. If necessary, additional right of way shall be dedicated on-site to construct a path of travel meeting ADA guidelines for the public.

77. FOOTHILL BLVD: Construct a new underground electrical system for public street lighting improvements. New marbelite street light poles with LED light fixtures shall be installed in accordance with City of Rialto Standard Drawings and as approved by the City Engineer. Provide 2" conduit and pull boxes along the opposite side of the street for continuation of the street light system for future built out.

78. Construct a 16-foot wide raised and landscaped median island along frontage of property, in accordance with City Standards and any applicable Specific Plan as approved by the City Engineer. The raised median shall extend from the easterly property line to Acacia Avenue intersection. The median nose width shall be constructed at 4 feet wide and shall have stamped concrete. The left turn pockets shall be designed in accordance with Section 405 of the current edition of the Caltrans Highway Design Manual, and/or as approved by the City Engineer.

79. 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. R8-2010-0036. 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.

80. The minimum pavement section for all on-site pavements shall be 2 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.

81. The developer shall connect to the City of Rialto sewer system and apply for a sewer connection account with Rialto Water services.

82. Submit sewer improvement plans prepared by a California registered civil engineer to the Engineering Division. The plans shall be approved by the City Engineer prior to issuance of any building permits.

83. Prior to issuance of a certificate of occupancy or final City approvals, provide certification from Rialto Water Services to demonstrate that all water and/or wastewater service accounts have been documented

84. The developer is advised that domestic water service is provided by Rialto Water District. The developer shall be responsible for coordinating with water purveyor and complying with all requirements for establishing domestic water service to the property.

85. A Notice of Intent (NOI) to comply with the California General Construction Stormwater Permit (Water Quality Order 2009-0009-DWQ as modified September 2, 2009) 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 prior to issuance

of a grading or building permit. 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.

86. 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. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading Plan.

87. 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. Provide a 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. 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.

88. 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.

89. Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.

90. Prior to commencing with any grading, the applicant shall implement the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified:

    a. 6-foot-high tan colored perimeter screened fencing

    b. Contractor information signage including contact information along the street frontages of Foothill Boulevard.

    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/1-800-228-7664".

91. The applicant shall remove any graffiti within 24 hours, before, during, and post construction.

92. 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.

93. 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.).

94. The applicant shall design the structures in accordance with the 2019 California Building Code, 2019 California Mechanical Code, 2019 California Plumbing Code, and the 2019 California Electrical Code, 2019 Residential Code and the 2019 California Green Buildings Standards adopted by the State of California.

95. The applicant shall design the structures to withstand ultimate wind speed of 130 miles per hour, exposure C and seismic zone D.

96. The applicant shall submit fire sprinkler, fire alarm systems, and fire hydrant plans to the Building Division for plan review concurrently with building plans and shall be approved prior to the issuance of a building permit.

97. 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.

98. The applicant shall install temporary construction fencing and screening around the perimeter of the project site. The fencing and screening shall be maintained at all times during construction to protect pedestrians.

99. 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.

100. 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.

101. 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, temporary construction 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.

102. 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.

103. 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.

104. 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.

105. The applicant shall provide proof of payment to the Rialto Unified School District for all required school fees, prior to the issuance of a building permit.

106. 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.

107. 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.

108. 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.

109. The developer is responsible for requesting address assignment 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.

110. 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.

111. All street cuts for utilities shall be repaired 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.

112. 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.

113. Any utility trenches or other excavations within existing asphalt concrete pavement of off-site streets required by the proposed development shall be backfilled and repaired 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.

114. The applicant shall install a water supply system capable of providing the required fire flow for the proposed type of development as per requirements of the applicable

California Fire Code current edition. On site fire hydrants shall be installed by a C-16 licensed contractor as required prior to the construction phase of the development. Plans for the on-site water system shall be approved by the Fire Department prior to issuance of building permits. Provide 12 gage locator wire non-insulated, taped above fire service main for all underground fire line.

115. The applicant shall install an engineered automatic sprinkler system in each residential structure. Plans for such a system shall be submitted for review and approval by the Fire Department prior to the issuance of any building permit

116. If the applicant fails to comply with any of the conditions of approval placed upon Precise Plan of Design No. 2021-0043 or any conditions placed upon the approval of the Precise Plan of Design required by Condition No. 3 above, 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.

117. 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.

118. 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.

119. The applicant shall comply with all applicable requirements of the California Fire Code and Chapter 15.28 (Fire Code) of the Rialto Municipal Code.

120. At the discretion of the Rialto Police Department, 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.

121. At the discretion of the Rialto Police Department, 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.

122. At the discretion of the Rialto Police Department, the applicant shall illuminate all loading dock areas, truck well areas, and delivery 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.

123. 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.

124. The applicant shall provide an illuminated channel letter address prominently placed on the building to be visible to the front of the location, prior to the issuance of a Certificate of Occupancy.

125. 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.

126. The applicant shall install Knox boxes immediately adjacent to all vehicle gates as well as 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.

127. 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.

128. 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.

129. 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.

130. Prior to issuance of a Certificate of Occupancy, the applicant shall pay a business license tax based on the applicable tax rate pertaining to the proposed use.

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 8th day of December, 2021.

_____
FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

RESOLUTION NO. 2021-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA, APPROVING VARIANCE NO. 2021-0001 TO REDUCE THE MINIMUM REQUIRED PARKING REQUIREMENT FROM 459 PARKING SPACES TO 367 PARKING SPACES, AS IT RELATES TO A PROPOSAL TO DEVELOP OF A RESIDENTIAL MULTI-FAMILY APARTMENT COMPLEX ON 8.02 GROSS ACRES OF LAND (APNs: 0133-171-07, -08, -09, and -31) LOCATED AT 534 E FOOTHILL BOULEVARD, WHICH IS APPROXIMATELY 200 FEET EAST OF ACACIA AVENUE WITHIN THE RESIDENTIAL-MIXED USE (R-MU) ZONE OF THE FOOTHILL BOULEVARD SPECIFIC PLAN.

WHEREAS, the applicant, Frontier Enterprises, proposes the development of a 204-unit apartment complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units ("Development") on 8.02 gross acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan. ("Site"); and

WHEREAS, pursuant to Section 18.58.060B of the Rialto Municipal Code, the minimum of two parking spaces of the two required spaces may be located within an enclosed garage. The required parking spacing for the proposed 204-unit Apartment Complex Development is 459 parking spaces and the development proposes 367 parking spaces; and

WHEREAS, the proposed 367 parking spaces for the Development does not comply with Section 18.58.060B of the Rialto Municipal Code. According to the survey conducted by ITE, multi-family development peak weekday parking demand for the 204-unit Apartment Complex is 1.3 parking spaces per dwelling units, the applicant proposed a 20 percent reduction of the parking spaces required within the R-MU zone in order to facilitate the Development ("Project"); and

WHEREAS, pursuant to Section 18.64.030 of the Rialto Municipal Code, the Project requires the approval of a Variance, and the applicant has agreed to apply for Variance No. 2021-0001 ("VAR No. 2021-0001"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on VAR No. 2021-0001, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the VAR No. 2021-0001; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to VAR No. 2021-0001, including written staff reports, verbal testimony, site plan, other documents, and the conditions of approval stated herein, the Planning Commission hereby determines that VAR No. 2021-0001satisfies the requirements of the Section 18.64.020 of the Rialto Municipal Code pertaining to the findings which must be made precedent to granting a variance. The findings are as follows:

1. There are exceptional circumstances or conditions applicable to the property involved, or to the intended use of the property, that do not apply generally to the property or class of use in the same vicinity or district.

This finding is supported by the following facts:

The City requires on-site retention of stormwater. Due to the size, slope, and location of the site, a large retention basin is required. Due to the high demand for multi-family residential in the City, the applicant elected to not reduce the total number of dwelling units to accommodate the retention basin and the applicant is requesting a reduction in parking instead.

2. This variance is necessary for the preservation and enjoyment of a substantial property right of the applicant as possessed by other property owners in the same vicinity and district.

This finding is supported by the following facts:

Developing a residentially zoned property for residential purposes in a manner consistent with allowed densities is a substantial property right. Given that a large retention basin is required, reduction of parking is necessary for the applicant to preserve and enjoy that right.

3. The granting of this variance will not be materially detrimental to the public welfare or injurious to the property or improvements in such vicinity and district in which the property is located.

This finding is supported by the following facts:

According to the survey conducted by ITE, multi-family development peak weekday parking demand is 1.3 parking spaces per dwelling unit. At 1.8 parking spaces per dwelling unit, as proposed, the project will supply sufficient parking. Moreover, the development is well designed and will not be unsightly or otherwise injurious to the property or improvements in the vicinity or detrimental to public welfare.

4. The proposed use and development are consistent with the General Plan and objectives of the zoning ordinance.

This finding is supported by the following facts:

Granting the variance will facilitate the development of a high-quality apartment complex in keeping with General Plan Land Use Element Goal 2-20: which requires the City to "Require high-quality multi-unit design, landscaping, and architecture."

SECTION 3. Lilburn Corporation prepared an Initial Study (Environmental Assessment Review No. 2021-0045) for the proposed project in accordance with the requirements of the California Environmental Quality Act (CEQA). The Initial Study is attached to the agenda report (Exhibit G). Based on the findings and recommended mitigation within the Initial Study, staff determined that the project will not have an adverse impact on the environment and a Mitigated Negative Declaration was prepared. A Notice of Intent to adopt the Mitigated Negative Declaration for the project was published in the San Bernardino Sun newspaper and mailed to all property owners within 660 feet of the project site. A twenty (20) day public comment period was held from November 10, 2021, to November 29, 2021. The Planning Division did not receive any public comment letters during the twenty (20) day public comment period. The Planning Commission

directs the Planning Division to file the necessary documents with the Clerk of the Board Supervisors for San Bernardino County.

SECTION 4. That VAR No. 2021-0001 is granted Frontier Enterprises, in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. Variance No. 2021-0001 is approved to reduce the minimum required parking from 459 parking spaces to 367 parking spaces, as it relates to a proposal to develop a 204-unit apartment complex on 8.02± acres of land (APNs: 0133-174-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) land use district of the Foothill Boulevard Specific Plan, as shown on the plans submitted to the Planning Division on September 10, 2021, 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 VAR No. 2021-0001.

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.

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 8th day of December, 2021.

_____
FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, Adrianna Martinez, 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 ___th day of ____, 2021.

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 __th day of ___, 2021.

_____

ADRIANNA MARTINEZ, ADMINISTRATIVE ASSISTANT

RESOLUTION NO. 2021-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA ADOPTING A MITIGATED NEGATIVE DECLARATION (ENVIRONMENTAL ASSESSMENT REVIEW NO. 2021-0045) FOR A PROJECT CONSISTING OF THE DEVELOPMENT AND OPERATION OF A 204-UNIT APARTMENT COMPLEX COMPRISED OF SEVEN THREE-STORY BUILDINGS WITH A MAXIMUM HEIGHT OF 40 FEET. THE PROJECT SITE CONSISTS OF 8.02± ACRES OF LAND (APNS: 0133-171-07, -08, -09, AND -31) LOCATED AT 534 E FOOTHILL BOULEVARD, WHICH IS APPROXIMATELY 200 FEET EAST OF ACACIA AVENUE WITHIN THE RESIDENTIAL-MIXED USE (R-MU) ZONE OF THE FOOTHILL BOULEVARD SPECIFIC PLAN.

WHEREAS, the applicant, Frontier Enterprises, LLC, proposes to construct a 204-unit Apartment Complex comprised of seven three-story buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a 3,210-square foot leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas. The project site consists of 8.02± acres of land (APNs: 0133-171-07, -08, -09, and -31) located at 534 E Foothill Boulevard, which is approximately 200 feet east of Acacia Avenue within the Residential-Mixed Use (R-MU) zone of the Foothill Boulevard Specific Plan; and

WHEREAS, the Project will consist of the construction of seven three-story residential buildings with a maximum height of 40 feet. The proposed residential units would consist of one- to three-bedroom units, ranging between 702 square feet to 1,106 square feet, configured in four buildings that contain twenty-four (24) units and three buildings that contain thirty-six (36) units. The project includes construction of a third, 3,210- square feet leasing office and clubhouse building, with a recreational pool and barbeque area for residential use. The pool and barbeque

area would include an in-ground pool and Jacuzzi, firepits and barbeque grill areas, shaded cabanas, and pool-side lounge areas; and

WHEREAS, pursuant to Table 3.1 (Permitted Uses) of the Foothill Specific Plan, the operation of a 204-unit Apartment Complex is a use permitted by right; and

WHEREAS, the Project within the R-MU district requires the approval of a Precise Plan of Design, and the applicant has agreed to apply for Precise Plan of Design No. 2021-0043 ("PPD No. 2021-0043"), in accordance with Chapter 18.65 (Precise Plan of Design) of the Rialto Municipal Code; and

WHEREAS, pursuant to the provisions of the California Environmental Quality Act, Public Resources Code Sections 21000 et. seq. (" CEQA"), the State's CEQA Guidelines, California Code of Regulations, Title 14, Section 15000 et. seq., and Government Code Section 65962.5(f) (Hazardous Waste and Substances Statement), the City reviewed an Initial Study (Environmental Assessment Review No. 2021-0045) prepared by Rincon Consultants, Inc. and determined that there is no substantial evidence that the approval of the Project would result in a significant adverse effect on the environment, provided appropriate mitigation measures are imposed on the Project; thus, a Mitigated Negative Declaration was prepared and notice thereof was given in the manner required by law; and

WHEREAS, a Notice of Intent to adopt the Mitigated Negative Declaration for the Project was published in the San Bernardino Sun newspaper, and mailed to all property owners within 660 feet of the Project Site, and a twenty (20) day public comment period was held from November 10, 2021 to November 29, 2021; and

WHEREAS, The Planning Division did not receive any public comment letters during the twenty (20) day public comment period; and

WHEREAS, the City mailed public hearing notices for the proposed Project to all property owners within 300 feet of the project site, and published the public hearing notice in the San Bernardino Sun newspaper as required by State law; and

WHEREAS, on November 10, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on the Mitigated Negative Declaration

and PPD No. 2021-0043, took testimony, at which time it received input from staff, the city attorney, and the Applicant; heard public testimony; discussed the proposed Mitigated Negative Declaration and PPD No. 2021-0043; 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 finds all of the above recitals to be true and correct.

SECTION 2: The Planning Commission has independently reviewed and considered the proposed Mitigated Negative Declaration, the public comments upon it, and other evidence and finds that the Mitigated Negative Declaration was prepared in the manner required by law, and there is no substantial evidence, provided appropriate mitigation measures are imposed, that the Project would result in a significant adverse effect upon the environment.

SECTION 3: The Initial Study (Environmental Assessment Review No. 2021-0045) prepared for the project identified the soils have been completely disturbed and vegetation mowed. The site was previously prepared for development evidenced by excavated soils including slopes for construction equipment to enter the site. The topsoil has been removed and soils currently on site are representative of much lower soil layers. Land cover within the site consists of disturbed habitat. Disturbed habitats have been physically altered and are no longer recognizable as a native or naturalized vegetation community but continue to retain a soil substrate. Typically, vegetation of disturbed/agricultural areas is almost exclusively composed of non-native ruderal plant species that take advantage of disturbance and which removes the capability of providing viable natural habitat, and therefore the proposed Project will have no individual or cumulative adverse impacts upon resources, as defined in Section 711. 2 of the State Fish and Game Code.

SECTION 4: The attached proposed Initial Study and Mitigated Negative Declaration, Exhibit "A" hereto, finds that there are no impacts or less than significant impacts to aesthetics, agriculture and forestry resources, air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral

resources, noise, population/housing, public services, recreation, tribal cultural resources, utilities and service systems, and wildfire.

SECTION 5: With the imposition of mitigation measures that address potential impacts upon biological resources, cultural resources, traffic and transportation, and mandatory findings of significance in the community, and as set forth in the Mitigation Monitoring & Reporting Program, Exhibit "B" hereto, which is attached hereto and incorporated herein by this reference, the proposed Project's potential significant impacts will be reduced below a level of significance.

SECTION 6: For the foregoing reasons and based on the information and findings included in the Initial Study and Mitigated Negative Declaration, technical reports, Mitigation Monitoring and Reporting Program, Staff Report, public testimony, and all other documents and evidence in the administrative record of proceedings, the Planning Commission has determined that the Project, as conditioned and mitigated, will not have a significant adverse impact on the environment and also finds that the preparation of the Initial Study and Mitigated Negative Declaration attached hereto complies with CEQA. Therefore, the Planning Commission hereby certifies the Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program, making certain environmental findings to allow the Project.

SECTION 7: 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 8th day of December, 2021.

_____

FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, Adrianna Martinez, 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 ___th day of ____, 2021.

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 __th day of ___, 2021.

_____
ADRIANNA MARTINEZ, ADMINISTRATIVE ASSISTANT

Exhibit “A”

Exhibit “B”

File #: PC-21-0934, **Version:** 1, **Agenda #:**

For the Planning Commission Meeting of December 8, 2021

TO: Honorable Chairman and Planning Commissioners

APPROVAL: Sean M. Moore, AICP, Director of Community Development

FROM: Dionne Harris, Senior Planner

Conditional Development Permit No. 2021-0031: A request to operate an Outlet Retail Store in an existing 1,530 square foot tenant space located at 678 W. Baseline Road (APN: 0127-281-10) within the Neighborhood Commercial (C-1) Zone ("Project" or "project"). The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 (Existing Facilities) of the State CEQA Guidelines.

APPLICANT:

Mayra Olascuaga, 9010 Newport Avenue, #2, Fontana, CA 92376.

LOCATION:

The project site is located near the northeast corner of Baseline Road and Cactus Avenue at 678 W. Baseline Road within an existing commercial center on a parcel of land identified as APN: 0127-281-10. The commercial center is approximately 0.78 acres in size. (Refer to the Location Map included as **Exhibit A**).

BACKGROUND:

Surrounding General Plan Land Use Designations

Location	***General Plan Designation***
Site	Community Commercial
North	Residential 6
East	Community Commercial
South	Residential 21
West	Community Commercial

Surrounding Land Use District or Zoning Designations

Location	***Zoning***
Site	Neighborhood Commercial (C-1)

North	Multi-Family Residential (R-3)
East	Neighborhood Commercial (C-1)
South	Multi-Family Residential (R-3)
West	Neighborhood Commercial (C-1)

Site Characteristics
The project site (**Exhibit B)** consists of a 1,530 square foot tenant space within an existing commercial center, which is developed with parking, lighting, and landscaping. The site has existing access to Baseline Road via two (2) driveways at the south side of the site. The Commercial center tenants include Jimmy's Liquor, Hair Kraze, The Zumba Room, and Armando's Mexican Food Drive-thru Restaurant.

Surrounding Area
The surrounding area is comprised of single-family residences to the north and south. A 76 Gas Station and Convenience Store are situated to the west and La Petite Academy Day Care Center is to the east.

ANALYSIS/DISCUSSION:

Project Proposal
Mayra Olascuaga, the applicant, proposes to establish an outlet store at the project site. The operation of the proposed business, named Sweet Deals, will consist of the sale of discounted, discontinued and overstock merchandise, i.e., clothing, shoes, accessories, home goods, glasses, toys, makeup, seasonal items, small electronics, bedding, and jewelry. The proposed business will operate from 10 a.m. to 5 p.m., Monday through Saturday and will have two (2) employees.

Entitlement Requirements
Pursuant to Chapter 18.66 (Conditional Development Permits) of the Rialto Municipal Code the project requires Planning Commission approval of a Conditional Development Permit. The applicant has complied with this requirement and filed a complete application with the Planning Division on October 20, 2021.

Layout
As shown on the floor plan (**Exhibit C**) the proposed outlet store will have a cashier counter near the front of the store, a show room area for clothing on racks, appliances, and home décor around the perimeter, and shelving for smaller goods throughout. The space is divided by a floating wall rack. Beyond the floating wall rack, the site plan includes a desk, printing table, dryer, printing machine, shelves, a break room, and bathroom.

Land Use Compatibility
The commercial center was designed for retail uses. Outlet stores are generally compatible with other retail uses and services typically found in commercial centers, including the existing businesses. As such, the Planning Division considers the proposed project to be compatible with the businesses in the area. To ensure compliance with all Conditions of Approval and that the establishment has not become a nuisance, the draft Resolution (**Exhibit D**) includes a Condition of Approval requiring Planning Commission review within six (6) months from the date of approval and

annual reviews thereafter.

GENERAL PLAN CONSISTENCY:

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

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

ENVIRONMENTAL IMPACT:

California Environmental Quality Act
The project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities, Class 1, which consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures. A Notice of Exemption is attached to agenda report as (**Exhibit E**).

PUBLIC NOTICE:

The City mailed a public hearing notice for the proposed project to all property owners within 660 feet of the project site, published the public hearing notice in the *San Bernardino Sun* newspaper, and posted the public hearing notice in two public places as required by State law.

RECOMMENDATION:

The Planning Division recommends that the Planning Commission:

- Find the project exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities, of the State CEQA Guidelines; and

- Adopt the attached Resolution (**Exhibit D**) to approve Conditional Development Permit No. 2021-0031 to allow the establishment and operation of an Outlet Retail Store within an existing 1,530 square foot tenant space located at 678 W. Baseline Road within the Neighborhood Commercial (C-1) Zone, subject to the findings and conditions therein.



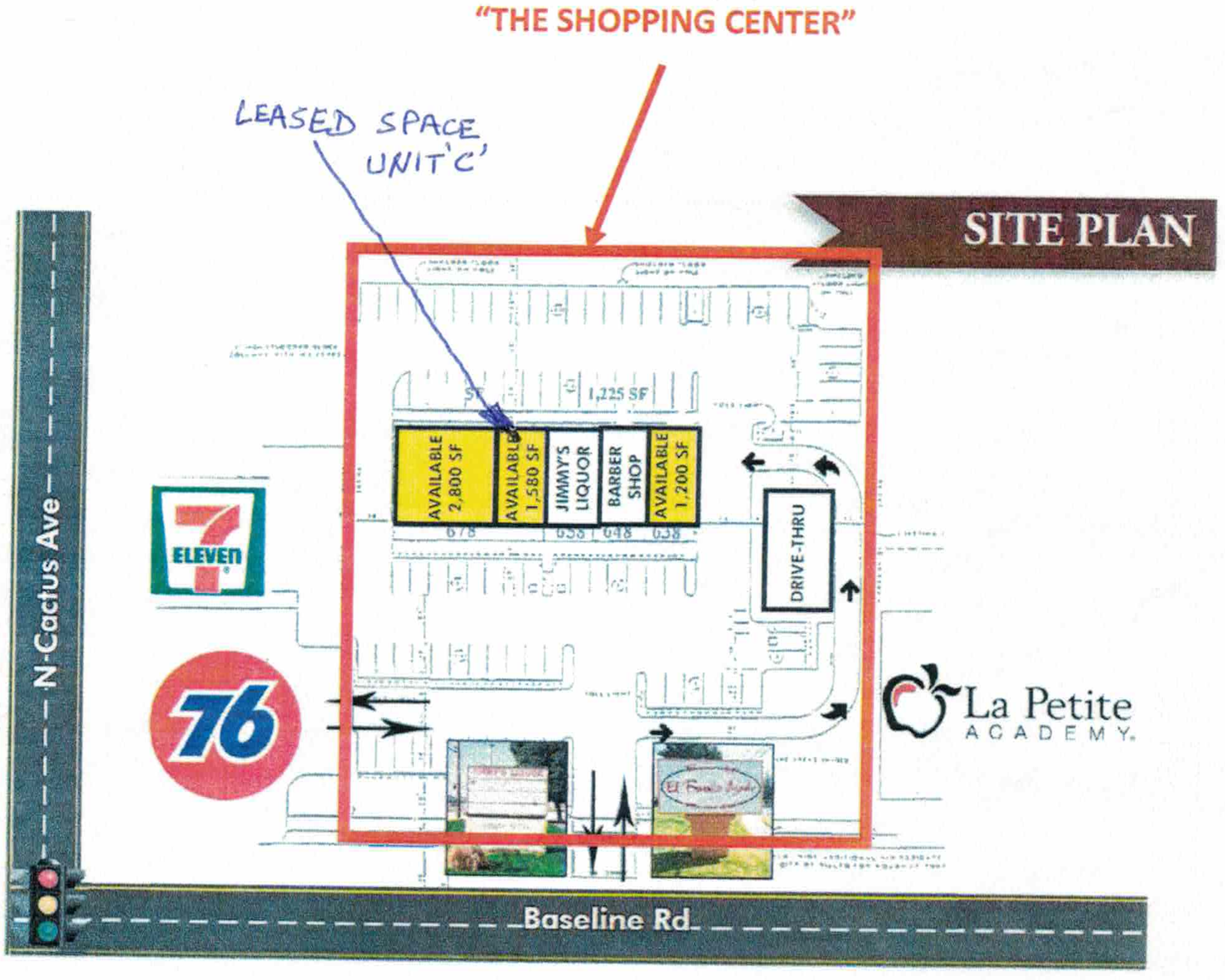
Project Location Map

N

EXHIBIT "B"

DESCRIPTION OF THE SHOPPING CENTER

Legal description, if available. If unavailable, attach a Site Plan with shopping center marked clearly.



SM
Landlord

Tenant RG

Tenant MG

Fixture

Fixture

Shelve

Fixture

Shelve

Display Display Display Back

Hat

Break Room

Bath Room

Shelves

Back Door

Shelves

Dryer

Table

Printing Machine

Desk

Floating Wall Rack

Fixture

Fixture

Fixture

Fixture

Clothes Rack

Clothes Rack

Circular Display

Fixture

Fixture

Fixture

Front Door

Glass Display Cash Box

RESOLUTION NO. 2021-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA APPROVING CONDITIONAL DEVELOPMENT PERMIT NO. 2021-0031, A REQUEST TO OPERATE AN OUTLET STORE WITHIN AN EXISTING 1,530 SQUARE FOOT TENANT SPACE LOCATED AT 678 W. BASELINE ROAD WITHIN THE NEIGHBORHOOD COMMERCIAL (C-1) ZONE.

WHEREAS, the applicant, Mayra Olascuaga, requests to operate an outlet within an existing 1,530 square foot tenant space located at 678 W Baseline Road (APN:0127-281-10), within the Neighborhood Commercial (C-1) Zone ("Site"); and

WHEREAS, pursuant to Chapter 18.28 of the C-1 zone, all other uses not listed as a permitted use within the C-1 zone of Chapter 18.66.030Q of the Rialto Municipal Code, such as the Project, require the approval of a conditional development permit by the Planning Commission, and the applicant has agreed to apply for a conditional development permit ("CDP No. 2021-0031"); and

WHEREAS, pursuant to Section 18.110.040 of the Rialto Municipal Code, the Project requires a Conditional Development Permit, and the applicant has agreed to apply for Conditional Development Permit No. 2021-0031 ("CDP No. 2021-0031"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on CDP No. 2021-0031, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed CDP No. 2021-0031; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to CDP No. 2021-0031, 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. 2021-0031 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 Project will provide a benefit to the community and customers within the vicinity by providing an assortment of products of discounted, discontinued and overstock merchandise. Additionally, the Conditions of Approval imposed on the establishment will ensure that establishment contributes to the well-being of the community and that it doesn't become a nuisance or hazard to the public.

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 Site consists of a 1,530 square foot tenant space within a commercial center located at the north of Baseline Road, the shopping center is bound by west Cactus Avenue and on the north by Base Line Road. To the north and south are single family residences, to the west is a 76 Gas Station and Convenience Store and to the east is a La Petite Academy preschool.

The Project is consistent with the Neighborhood Commercial (C-1) land use district of the of the Rialto Municipal Code, the commercial uses within the commercial center, and the commercial uses to the west of the Site. The nearest sensitive uses are the preschool to the east and single-family residences to the north and south of the Site. These sensitive uses are not expected to be negatively impacted by the Project since the applicant is required to implement the conditions of approval contained herein.

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 Site is within an existing in line commercial center. The commercial center consists of two (2) parcels of land, approximately 10,074 square feet or 2.46 acres in size, located at the north side of Baseline Road and east of North Cactus Avenue. The applicant proposes to operate an outlet store within a 1,530 square foot tenant space within one (1) of the six (6) tenant spaces on the in line commercial center. The applicant's tenant space and the commercial center have adequate physical characteristics to accommodate the addition of a new product for sale within the tenant space.

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 existing tenant space has adequate access to all utilities and services required through main water, electric, sewer, and other utility lines that are already hooked up to the Site. The Project will not require any additional utilities or services.

5. The proposed use will be arranged, designed, 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 Site consists of an existing tenant space within an existing commercial center that has been developed and maintained in a manner that is consistent with the C-1 land use district. The operation of the proposed outlet store within the Site is also consistent with the C-1 land use district. The Conditions of Approval contained herein require the applicant to conform to the standards for the outlet store set forth in Chapter 18.66.030Q Single Price Overstock/Discount Store. If all Conditions of Approval contained herein are satisfied, the Project will not negatively impact any land uses within the vicinity.

Furthermore, the Project is consistent with Goal 3-1 of the General Plan by contributing to the strengthening of an economic base and employment opportunities.

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 Conditions of Approval contained herein will minimize the Project's impacts. The granting of CDP2021-0037, allowing an outlet store within an existing tenant space, will potentially maintain a viable tenant within a commercial building that has historically

suffered from high turnover. Furthermore, the use will continue to offer residents and visitors seeking an assortment of products for the community. Therefore, the adverse effects are outweighed by the benefits conferred upon the community and neighborhood as a whole.

SECTION 3. The Project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities. No new construction or physical alterations are proposed as a part of the Project. The Planning Commission directs the Planning Division to file the necessary documentation with the Clerk of the Board of Supervisors for San Bernardino County.

SECTION 5. CDP No. 2021-0037 is granted to Mayra Olascuaga, in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. CDP No. 2021-0037 is granted allowing the outlet store use, from an existing tenant space located at 678 W Baseline Road 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 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 CDP No. 2021-0037.

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. Outdoor display and storage of any kind is prohibited at all times.

6. All items for sale shall be displayed in an orderly manner on the show room floor, shelves, and racks.

7. All signage shall comply with Section 18.102 (Regulation of Signs) of the Rialto Municipal Code.

8. A City business license shall be required prior to issuance of a Certificate of Occupancy (C of O) or final permits.

9. Six (6) months after the date of approval, the Planning Commission may review Conditional Development Permit No. 2021-0037 to determine if the operator has complied with all of the required conditions of approval. Thereafter, the Planning Commission may review the approved facility on an annual or as needed basis.

10. 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 commences 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.

11. If the applicant fails to comply with any of the Conditions of Approval placed upon Conditional Development Permit No. 2021-0037, 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. Conditional Development Permit No. 2021-0037 shall 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 have 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 Neighborhood Commercial (C-1) land use district, and the City's General Plan.

SECTION 6. The Chairman of the Planning Commission shall sign this resolution evidencing it's the passage and adoption of this resolution and thereupon the same shall take effect and be in force.

PASSED, APPROVED AND ADOPTED this 8th day of December, 2021.

_____
FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF RIALTO)

I, Adrianna Martinez, 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 ___th day of ____, 2021.

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 __th day of ___, 2021.

_____

ADRIANNA MARTINEZ, ADMINISTRATIVE ASSISTANT

File #: PC-21-0937, **Version:** 1, **Agenda #:**

For the Planning Commission Meeting of December 8, 2021

TO: Honorable Chairman and Planning Commissioners

APPROVAL: Sean M. Moore, AICP, Community Development Director

FROM: Dionne Harris, Senior Planner

***Conditional Development Permit No. 2021-0018*:** A request to establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building on 1.07 gross acres of land (APN: 0258-181-09) located at 2259 S. Vista Avenue within the Heavy Industrial (H-IND) land use district of the Agua Mansa Specific Plan ("Project" or "project"). This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 (Existing Facilities Projects) of the State CEQA Guidelines.

APPLICANT:
Enerra Corporation, Inc., 2259 S. Vista Avenue, Bloomington, CA,92316.

LOCATION:
The project site is located at 2259 S. Vista Avenue, which is located at the east of Vista Avenue and 956 feet south of Slover Avenue (Refer to the attached Location Map (**Exhibit A**)).

BACKGROUND:

Surrounding Land Use and Zoning

Location	***Existing Land Use***	***Zoning***
Site	Fuel Processing Facility	Heavy Industrial (H-IND)
North	Machine Shop	Heavy Industrial (H-IND)
East	Old Dominion Freight Line	Heavy Industrial (H-IND)
South	Auto Refinisher	Heavy Industrial (H-IND)
West	Maintenance Shop	Heavy Industrial (H-IND)

General Plan Designations

Location	***General Plan Designation***
Site	General Industrial
North	General Industrial
East	General Industrial

South	General Industrial
West	General Industrial

Site Characteristics
The project site is a 1.07-acre irregular-shaped piece of land comprised of one (1) parcel. The property is fully developed with a 14,779 square foot warehouse. It was previously occupied by a vehicle services repair shop up until October 2018. The project site is bound on the west by South Vista Avenue. To the north there is a machine shop, to the east is Old Dominion Freight Line, to the west is a maintenance shop, and south of the project site vehicle refinishers shop. The zoning of the project site and the properties to the north, south, east, and west is Heavy Industrial (H-IND) within the Agua Mansa Specific Plan.

ANALYSIS/DISCUSSION:

Project Proposal
Enerra proposes to establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building. The facility will convert recycled plastic waste into renewable energy in the form of natural gas, kerosene, diesel, gasoline fuels and petroleum. The Project will convert waste plastic into renewable fuels using a proprietary non-catalytic thermo/physical process. The project site is fully developed with no exterior modifications required to the facility. There are no required infrastructure upgrades. Existing utilities upgrades will not be required for the installation of this equipment. The tenant improvements will consist of electrical modifications made to the existing facility to power the new equipment, all applicable trade permits will be procured prior to performing electrical modifications, adding pipe supports to install the processing system, and the containment area. As fuels are produced, they are continually transferred directly to the multi-Compartment Fuel Tanker Trailer, the tanker trailer will be staged outside the building, inside of the containment area until full.

Entitlement Requirements
According to Table 8 within Section 4.2.2.C. of the Agua Mansa Specific Plan, any use that involves the processing of oil and/or gas is subject to the approval of a Conditional Development Permit. The following entitlements are required for the applicant's proposal:

- Conditional Development Permit: The development and operation of the Project within the H-IND zone of the Agua Mansa Specific Plan requires the approval of a Conditional Development Permit, pursuant to Section 18.112.030A(7) of the Rialto Municipal Code.

Parking Calculations
The development has twenty-two (22) parking spaces including one (1) ADA parking space, shown in the site plan (**Exhibit B**). Enerra has also executed a Reciprocal Parking Agreement with the property owner of 2773 S. Vista Avenue, Bloomington CA, 92316. The development to the south, 2773 S. Vista Avenue, Bloomington CA, 92316, has forty (40) parking spaces. This quantity exceeds the minimum parking requirement with the Reciprocal Parking Agreement, as shown in the parking calculation chart below and as required by Table 10 of Section 4.2.2.D. of the Agua Mansa Specific Plan:

Type of Use	*Floor Area (square feet)*	*Parking Ratio*	*Number of spaces required*
Office	2,000	1/300	7
Warehouse Warehouse Storage	10,000 1,900 400	1/1000 1/2000 1/1000	10 1 1
Reciprocal Parking Total Parking Spaces Required/Total Provided			40 **19/62**

Enerra Operation
The Enerra plastic waste processing facility will operate 6am - 10 pm, seven (7) days a week, with a staff of up to twelve (12) employees spread out over two (2) shifts. Each truckload of plastic feedstock will weigh approximately 24 tons. Each load will provide approximately 40 bales of repurposed plastic weighing approximately 1,200 lbs. each. Each load of baled plastic feedstock can be stored in a footprint of approximately 200 sf when stacked four bales high, approximately 8' in height. Each truckload of repurposed plastic feedstock can be stored in a 200 square foot area equivalent to .012 tons per square foot. The facility intends to store 1-3 weeks of repurposed plastic feedstock, approximately 6-20 days of production. The repurposed plastic materials will be stored indoors.

Between 2,800-4,000 tons of waste of plastic from landfills will be repurposed and converted to ready to use fuel(s) kerosene, diesel, and gasoline on an annual basis. Fuels are not stored inside the building; they are continuously pumped to a Multi-Compartment Fuel Tanker Trailer staged on site. Once the tanker trailer has been filled, the fuel is transported off site for distribution. Each ton of repurposed waste plastic will produce approximately 112 gallons of Gasoline, 55 gallons of Diesel, 23 -25 gallons of Kerosene, and 40 lbs. of paraffin.

One tanker will be staged on site during batch operations. As fuels are produced, they are continually transferred directly to the Multi-Compartment Fuel Trailer, the tanker trailer will be staged outside the building, inside of the containment area until full. The full tanker will be removed and replaced with an empty tanker, and fuel production will be resumed.

Traffic / Access
On average, the truck traffic will be very minimal. There will be around 1-2 truckloads in and out per day. It is estimated that 1-2 Tankers per week will be produced and transferred off site, contingent upon process operations. These will be delivered by truck and trailer weekly/bi-weekly. Trucks will be off loaded using a forklift, baled materials will be staged inside the building before processing as indicated on the drawings. Each truckload will provide approximately 6 days/22 tons of feed stock. Deliveries of repurposed plastic feedstock will be coordinated and received in early hours to avoid traffic impacts to the surrounding complex. The products will be pre-sold and loaded into mobile containers to be distributed locally and regionally. Daily distribution will eliminate the need for extensive on-site storage. The system will be run in sequenced batches on a single or double shifts basis. Access will only be from Vista Avenue.

Land Use Compatibility

The project, as submitted, meets or exceeds the applicable development criteria of the H-IND zone and the design criteria contained in Chapter 18.61 (Design Guidelines) of the Rialto Municipal Code. The proposed land use is consistent with the H-IND zone and the surrounding land uses. The nearby area is predominantly zoned for and developed with heavy industrial uses, and as a result, there are no sensitive land uses near the project site. The project will provide a benefit to the community and the region, as it will contribute towards the processing and recycling of plastic waste the State of California made mandatory with the adoption of Assembly Bill 1826 on September 28, 2014.

GENERAL PLAN CONSISTENCY:

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

Goal 2-34: Achieve waste recycling levels that meet or exceed State mandates. Achieve maximum waste recycling in all sectors of the community: residential, commercial, industrial, institutional and construction.

Goal 3-10: Minimize the volume of solid waste that enters local or regional landfills.

ENVIRONMENTAL IMPACT:

California Environmental Quality Act
The project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities, Class 1, which allows for the exemption of a project consisting of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures. The Project generated emissions would be primarily associated with the operation of the process heater to convert plastic to fuels, fugitive emissions from process leaks, gasoline vapors from tank loading and storage, and motor vehicle use. Daily emissions attributable to the Project are compared to the SCAQMD CEQA significance thresholds. The Project emissions would not exceed SCAQMD thresholds.

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 the City Clerk's Office, and mailed public hearing notices to all property owners within 660 feet of the project site, as required by State law.

RECOMMENDATION:

Staff recommends that the Planning Commission:

- Find that the project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities, of the State CEQA Guidelines; and

- Adopt the attached Resolution (**Exhibit C**) to approve Conditional Development Permit No.

2021-0037 to request to allow the establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building located at 2259 S. Vista Avenue (APN: 0258-181-09) within the Heavy Industrial (H-IND) land use district of the Agua Mansa Specific Plan, subject to the findings and conditions therein.



Project Location Map

N

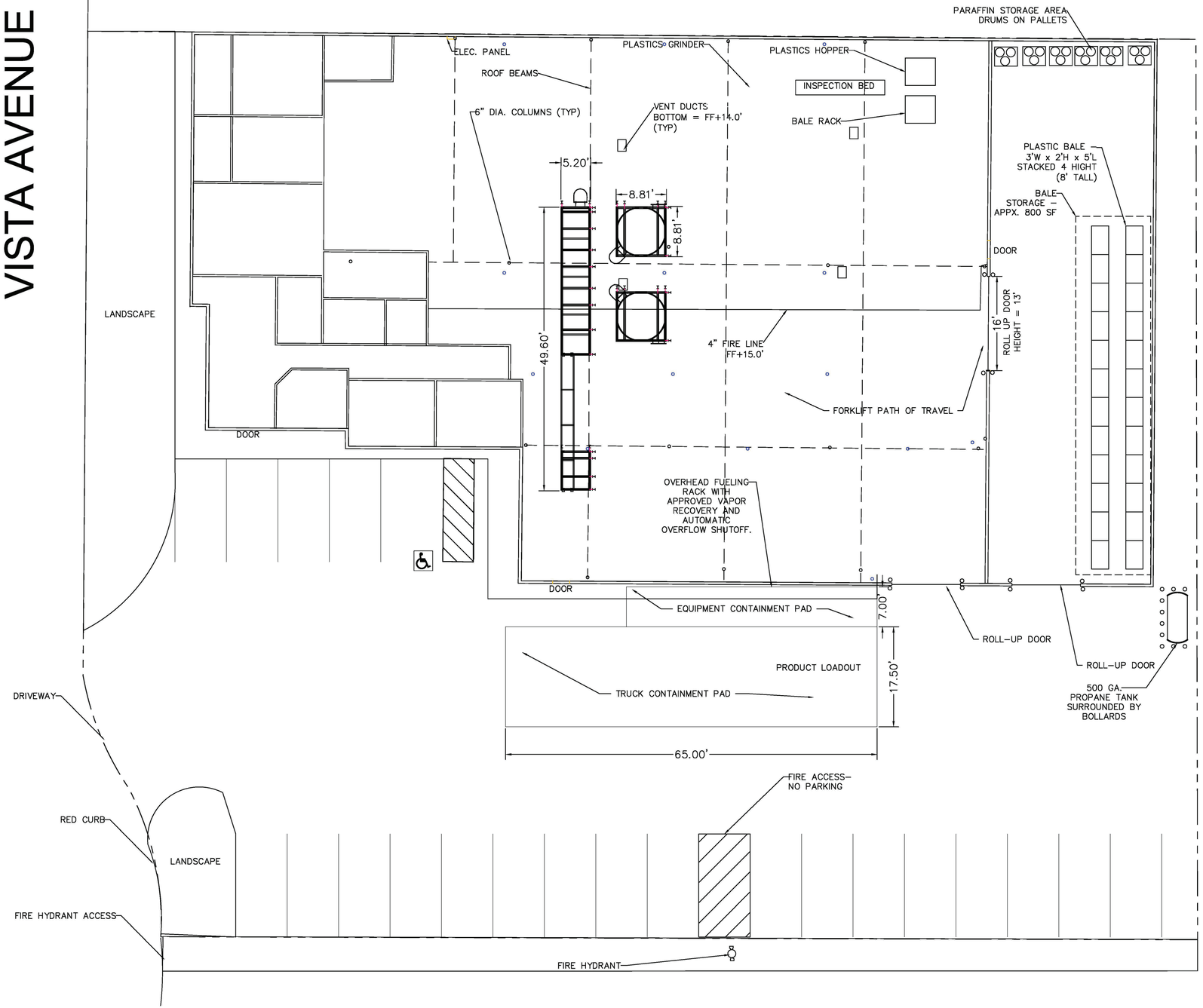
SITE INFORMATION:

Address: 2259 S Vista Ave.,
Bloomington, CA 92316
APN: 0258-181-09-0000

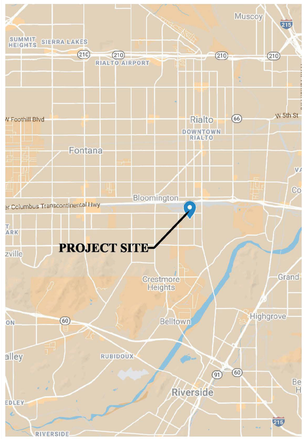
LEGAL DESCRIPTION:

Location: 2259 S. Vista Ave., Bloomington, CA 92316
County: San Bernardino
APN 0258-181-09-0000 LAT/LONG 34.060338 / -117.377093
Subdivision: I 2884
Site Congressional District: 35th Census Tract 4004 Census Block I 042
Carrier Route: C002
Tax Rate Area: 6008
Legal Book Page/Block/Lot 0258 181//9
Legal Description: TRACT I 2884 Lot 9
Property Type: Zoned Heavy Industrial.
Lot Size (Sq.Ft.): 30,000
Lot Size (Acres): 0.7
Structure Year Built: 1989
Structure Square Footage: 14,779
Building Quality Average Construction Type: Masonry
Document Type: Deed Document Number 332329
Recording Date: 8/21/1990
Grantor Type: Grantor Grantee BT 2259 Properties LLC

VISTA AVENUE



LOCATION MAP



General Notes

ENERRA CORP.

PLASTIC TO FUEL PROCESSING FACILITY

SITE AND FLOOR PLAN

2259 S. VISTA AVE.
RIALTO, CA 92316

No.	Revision/Issue	Date

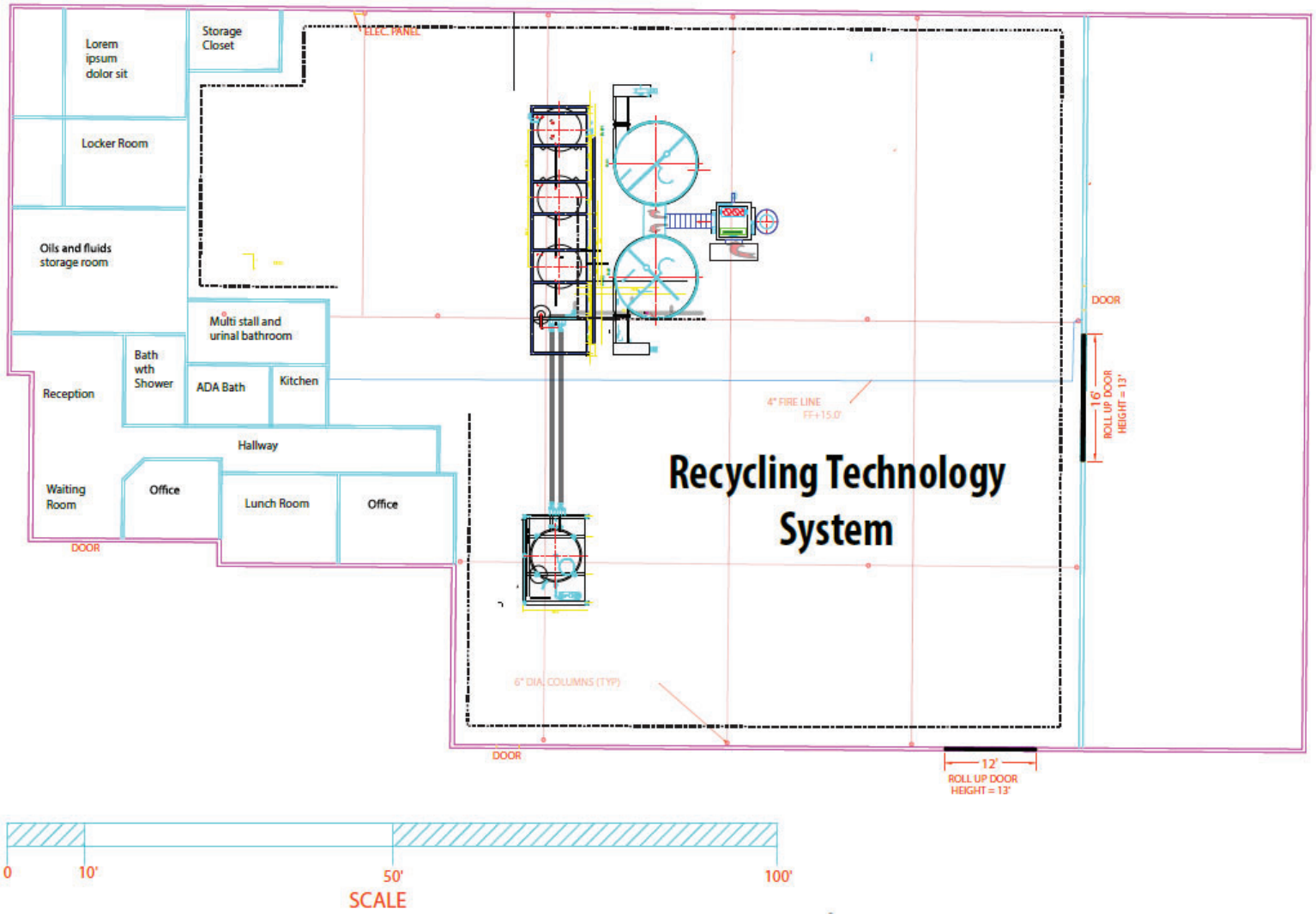
Firm Name and Address

CLEMENTS
ENVIRONMENTAL
15230 Burbank Bl., Ste. 103
Sherman Oaks CA 91411
818.267.5100

Project Name and Address

Project: Enerra - Rialto	Sheet: A-1
Date: Sept. 24, 2021	
Scale: 1" = 10'	

Figure 2-5: Conceptual Site Plan



RESOLUTION NO. 2021-_

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIALTO, CALIFORNIA CONDITIONAL DEVELOPMENT PERMIT NO. 2021-0018, A REQUEST TO ESTABLISH A PLASTIC CONVERSION TO FUEL PROCESSING FACILITY WITHIN A 14,779 SQUARE FOOT BUILDING ON 1.07 GROSS ACRES OF LAND (APN: 0258-181-09) LOCATED AT 2259 S. VISTA ROAD WITHIN THE HEAVY INDUSTRIAL (H-IND) LAND USE DISTRICT OF THE AGUA MANSA SPECIFIC PLAN.

WHEREAS, the applicant, Enerra Corporation, Inc., proposes to establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building located at 2259 S. Vista Avenue (APN: 0258-181-09) within the Heavy Industrial (H-IND) land use district of the Agua Mansa Specific Plan ("Site"); and

WHEREAS, Pursuant to Table 8 within Section 4.2.2.C. of the Agua Mansa Specific Plan, any use that involves the processing of oil and/or gas, such as the Project, within the H-IND zone requires a Conditional Development Permit, and the applicant has agreed to apply for a Conditional Development Permit ("CDP No. 2021-0018"); and

WHEREAS, on December 8, 2021, the Planning Commission of the City of Rialto conducted a duly noticed public hearing, as required by law, on CDP No. 2021-0018, took testimony, at which time it received input from staff, the city attorney, and the applicant; heard public testimony; discussed the proposed CDP No. 2021-0018; 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. Based on substantial evidence presented to the Planning Commission during the public hearing conducted with regard to CDP No. 2021-0018, 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. 2021-0018 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 Project involves the production of a conventional fuel from an alternative plastic waste. Generally speaking, alternative means of providing energy is seen as critical to ensuring the sustainability of communities, including Rialto. Greater access to alternative fuels and a business as technologically advanced as the applicant's will be a great benefit to the community. Rialto historically has been a champion of "green" industry businesses, and the Project will continue to promote Rialto as a community that welcomes such businesses.

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 a 1.07-acre irregular-shaped piece of land comprised of one (1) parcel. The property is fully developed with a 14,779 square foot warehouse. It was previously occupied by a vehicle services repair shop up until October 2018. The project site is bound on the west by South Vista Avenue. To the north there is a machine shop, to the east is Old Dominion Freight Line, to the west is a maintenance shop, and south of the project site, a vehicle refinishers shop. The zoning of the project site and the properties to the north, south, east, and west is Heavy Industrial (H-IND) within the Agua Mansa Specific Plan. The Project is consistent with the Heavy Industrial (H-IND) zone and the surrounding land uses. The nearby area is predominantly zoned for and developed with heavy industrial uses, and as a result, there are no sensitive land uses near the project site.

Additionally, a Hazardous Material Business Plan (HMBP) and a Spill Prevention, Control, and Countermeasure Plan (SPCCP) will be prepared for the Project. Each plan will be reviewed and approved by the Rialto Fire Department, prior to issuance of any building permits, to ensure that the project is not a hazard to the public. With the implementation of the HMBP and SPCCP, and the fact that there are no sensitive uses adjacent to or nearby the Site, the Project is not expected to be injurious or detrimental to the public in any way.

The Enerra plastic waste processing facility will operate 6am - 10 pm, seven (7) days a week, with a staff of up to twelve (12) employees spread out over two (2) shifts. Each truckload of plastic feedstock will weigh approximately 24 tons. Each load will provide

approximately 40 bales of repurposed plastic weighing approximately 1,200 lbs. each. Each load of baled plastic feedstock can be stored in a footprint of approximately 200 sf when stacked four bales high, approximately 8' in height. Each truckload of repurposed plastic feedstock can be stored in a 200 square foot area equivalent to .012 tons per square foot. The facility intends to store 1-3 weeks of repurposed plastic feedstock, approximately 6-20 days of production. The repurposed plastic materials will be stored indoors.

Between 2,800 - 4,000 tons of waste of plastic from landfills will be repurposed and converted to ready to use fuel(s) kerosene, diesel, and gasoline on an annual basis. Fuels are not stored inside the building; they are continuously pumped to a Multi-Compartment Fuel Tanker Trailer staged on site. Once the tanker trailer has been filled, the fuel is transported off site for distribution. Each ton of repurposed waste plastic will produce approximately 112 gallons of Gasoline, 55 gallons of Diesel, 23-25 gallons of Kerosene, and 40 lbs. of paraffin.

One tanker will be staged on site during batch operations. As fuels are produced, they are continually transferred directly to the Multi-Compartment Fuel Trailer, the tanker trailer will be staged outside the building, inside of the containment area until full. The full tanker will be removed and replaced with an empty tanker, and fuel production will be resumed.

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 Site is 1.07 acres in size irregular-shaped piece of land comprised of one (1) parcel. The property is fully developed with a 14,779 square foot warehouse. All structures and operations will be conducted on the flat area of the Site. As evidenced by the site plan, attached as Exhibit C, the Site and building is adequate in size and shape to accommodate the proposed development. Additionally, the Project will be accessible via an existing driveway located on the west side of Vista Avenue. Furthermore, the development will have twenty-two (22) parking spaces, along with the reciprocal parking agreement with the southern property providing an additional 40 parking spaces, which exceeds the quantity of parking spaces required by Table 10 of Section 4.2.2.D. of the Agua Mansa Specific Plan.

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 Site will have adequate access to all utilities and services required through main water, electric, sewer, and other utility lines that will be hooked up to the Site.

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, the Agua Mansa Specific Plan, or any zoning ordinances, and

This finding is supported by the following facts:

The use is consistent with the Heavy Industrial (H-IND) zone. The Project, as submitted, meets or exceeds the applicable development criteria of the H-IND zone and the design criteria contained in Chapter 18.61 (Design Guidelines) of the RMC. Furthermore, the site is fully developed and will only change in the interior to install the technology that will transform plastic waste to fuel.

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. The development of a technologically innovative use, such as the Project, will serve to provide advanced employment opportunities for residents and visitors to the City. The Project will also provide further access to conventional fuels made from alternative resources, which will serve to encourage, promote, and strengthen sustainability of the community. Therefore, any potential adverse effects are outweighed by the benefits conferred upon the community and neighborhood as a whole.

SECTION 3. the applicant, Enerra Corporation, Inc., proposes to establish a plastic conversion to fuel processing facility within an existing 14,779 square foot building located at 2259 S. Vista Avenue (APN: 0258-181-09) within the Heavy Industrial (H-IND) land use district of the Agua Mansa Specific Plan.

SECTION 4. The Project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15301, Existing Facilities. No new construction or physical alterations are proposed as a part of the Project. The Planning Commission directs the Planning Division to file the necessary documentation with the Clerk of the Board of Supervisors for San Bernardino County.

SECTION 5. CDP No. 2021-0018 is granted to Enerra Corporation, Inc, in accordance with the plans and application on file with the Planning Division, subject to the following conditions:

1. CDP No. 2021-0018 is granted allowing the reuse of plastic waste to be turned into the fuel use, from an existing tenant space located at 2259 S. Vista Avenue 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 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 CDP No. 2021-0018.

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 facility shall be restricted to processing a maximum of 4,000 tons of repurposed waste plastic which will produce approximately 112 gallons of Gasoline, 55 gallons of Diesel, 23-25 gallons of Kerosene, and 40 lbs. of paraffin per week.

6. 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.

7. 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.

8. If the applicant fails to comply with any of the Conditions of Approval placed upon Conditional Development Permit No. 2021-0018, 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. Conditional Development Permit No. 2021-0018 shall 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 have 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 odor, 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 Heavy Industrial (H-IND) zone of the Agua Mansa Specific Plan and the City's General Plan.

SECTION 6. The Chairman of the Planning Commission shall sign this resolution evidencing it's the passage and adoption of this resolution and thereupon the same shall take effect and be in force.

PASSED, APPROVED AND ADOPTED this 8th day of December, 2021.

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FRANK GONZALEZ, CHAIR
CITY OF RIALTO PLANNING COMMISSION