



Staff Report

File #: 23-0556

PLANNING AND HOUSING COMMISSION STAFF REPORT

DATE: 07/10/2023

TO: Honorable Chair and Commissioners

FROM: Planning & Development Department

APPLICATION REQUEST:

CUP2023-0002: Conditional Use Permit application to develop 50 apartment units on 2.96 acres, located on the west side of Temescal Canyon Road and on the north and south sides of Fashion Drive, in the Commercial designation of the Dos Lagos Specific Plan. (Applicant: Pat Tritz of Rexco Development, 2518 N. Santiago Blvd., Orange, CA 92862)

RECOMMENDED ACTION:

That the Planning and Housing Commission adopt the Addendum to the adopted Mitigated Negative Declaration and Mitigation Monitoring Plan and Resolution No. 2612 GRANTING CUP2023-0002, based on the findings contained in the staff report and conditions of approval.

PROJECT SITE SUMMARY

Area of Property: 2.96 Acres

Existing Zoning: C (Commercial) designation within the Dos Lagos Specific Plan

Existing General Plan: MU I (Mixed Use, Commercial/Residential)

Existing Land Use: Vacant

Proposed Land Use: Multi-Family Residential

Surrounding Zoning / Land Uses:

N: C (Commercial) / Retail Center

E: RR (Resort Residential) / Apartments

S: C (Commercial) / Service Station and convenience store

W: C (Commercial) / Apartments

BACKGROUND

The Dos Lagos Specific Plan ("Specific Plan") established a master plan for over 543 acres located near the southern boundary of the City of Corona. The Specific Plan provides eight (8) land use designations within its 14 planning areas.

The proposed multiple family residential project is located within Planning Area 1 of the Dos Lagos Specific Plan. Planning Area 1 is zoned Commercial ("C"), which allows condominiums and apartments with approval of a conditional use permit (CUP), provided the total yield of multi-family residential units within all of Planning Area 1 does not exceed 450.

The project site, which is currently vacant, was part of a larger commercial project approved in 2018 (Precise Plan PP2018-0003), but not completed. PP2018-0003 approved a four-story hotel; a 2,500-square-foot restaurant with drive-through; 15,100 square feet of restaurant and retail space; and a gas station with a convenience store and drive-through car wash. The commercial site plan approved under PP2018-0003 is provided as Exhibit 3. The hotel, gas station, convenience store and drive-through car wash are constructed and operating. The proposed 50-unit residential project is intended to replace the restaurant with drive-through, and the restaurant/retail space, on the west side of Temescal Canyon Road, and on the north and south sides of Fashion Drive.

PROJECT DESCRIPTION

CUP2023-0002 is a site development plan to establish 50 multiple-family residential units within Planning Area 1 of the Dos Lagos Specific Plan. The proposed residential units are being referred to as Terrano Phase II, as they are intended to be a continuation of the existing 276-unit Terrano Apartment project located to the immediate west of the proposed project, which were approved under CUP16-002. Combined, Terrano Phase I and II comprise a total of 326 units, which is less than the maximum number of 450 units the Dos Lagos Specific Plan allows for Planning Area 1.

Site Plan

The project comprises of seven (7) residential buildings designed as either two-story townhomes or three-story stacked flats. The buildings reflect a modern architectural style. Exhibit 4 illustrates the proposed site plan with building placement, parking locations, and recreation amenities. Access to the project is from Fashion Drive, via Temescal Canyon Road and Dos Lagos Drive. Fashion Drive is an existing private street within the development, and it provides access to the other residential and commercial developments within Planning Area 1.

The proposed project is comprised of two areas, which are bisected by Fashion Drive. The north side of Fashion Drive is comprised of 20 attached two-story townhomes, and approximately 4,288 square feet of recreation area. The recreation area consists of a lawn and a pickleball court. The portion south of Fashion Drive is comprised of 10 attached two-story townhomes, 20 stacked flat units within three-story buildings, and approximately 1,270 square feet of recreation area. The recreation consists of two separate lawn areas. The site plan, as designed, meets the minimum building setback requirements from the streets, and the minimum building separation requirements, as prescribed by the Dos Lagos Specific Plan.

All of the two-story townhomes have either a single-car or two-car garage, with direct access from the garage to each unit's living area. The buildings with the flat units have single-car garages, but there is no direct access from the garages to the units. Covered (carport) parking and uncovered guest spaces are provided within the north and south portions of the project. Table A summarizes the development proposal.

Table A - Summary of Development

Features:	North Portion:	South Portion:
Number of Buildings	4 (Buildings A & B)	3 (Building C & Buildings D)
Story/Building height	2-story / 26'-6"	2-story Building C / 26'-6" 3-story Buildings D / 36'-6"
Unit	20	30
Garage parking space	30	27
Carport parking space	15	18
Uncovered parking space	8	14
Total parking space	53	59
Amenities*	Lawn area, Pickleball Court (4,288 s.f)	Lawn area (1,270 s.f.)

* Residents have access to recreation amenities within Terrano Phases I (existing) and II (proposed).

Floor Plans

The residential units range from one-bedroom stacked units to three-bedroom, two-story townhomes (Exhibit 5). The units have a minimum floor area of 600 square feet or greater, which complies with the Dos Lagos Specific Plan’s minimum living area requirement of 600 square feet for multiple family residential units. Table B provides a summary of the unit types and sizes.

Table B - Summary of Unit Types

Type:	Plan/Building:	Unit Count:	Unit Size (sq. ft.):	Bed/Bath:
Flat	Plan 1 / Building D*	4	600	1 / 1
Flat	Plan 2 / Building D*	6	640	1 / 1
Flat	Plan 5 / Building D*	4	830	2 / 2
Flat	Plan 6 / Building D*	6	830	2 / 2
Townhome	Plan 3 / Buildings A, B, C	10	820	1 / 1
Townhome	Plan 4 / Buildings B, C	5	830	1 / 1
Townhome	Plan 7 / Buildings A, B, C	10	1085	2 / 2.5
Townhome	Plan 8 / Buildings B, C	5	1265	3 / 2.5

* Parking spaces within Buildings D are assigned at time of lease, which may be in the form of enclosed garage spaces or covered carport spaces.

Parking

The project is required to have 90 covered parking spaces and 10 guest parking spaces, for a total of 100 parking spaces. The project meets this requirement by providing 90 covered parking spaces (57 garages and 33 carport covered spaces), and 22 uncovered guest spaces.

The project’s parking is based on the City standards in effect at the time the applicant initially submitted the project’s preliminary application (Development Plan Review application) to the City, which was August 17, 2022. New parking standards didn’t go into effect until October 2, 2022. The old standards used for this project are:

- 1.5 covered parking space per unit, plus 1 uncovered guest space per 5 units
- 2 covered parking spaces per unit, plus 1 uncovered guest space per 5 units
- 2.5 covered parking spaces per unit, plus 1 uncovered guest space per 5 units

The project is allowed to use the older parking standards through a provision under California Senate Bill (SB) 330 (Housing Crisis Act of 2019). Under this bill, a residential project is only subject to the development standards in effect at the time the developer submitted his/her preliminary application (DPR application) to the City. The applicant (Rexco) submitted their formal CUP application on February 13, 2023, 180 days from the DPR submittal, which complies with SB 330 deadlines.

For informational purposes only, if the project had been required to provide parking based on the recently adopted parking standards, the project would have been required to provide 96 covered parking spaces plus 10 guest parking spaces. The difference is that the new standard would require an additional six covered parking spaces more than the old standard.

Architecture

The Dos Lagos Specific Plan's Architectural Design Guidelines (Guidelines) prescribes an Eclectic Mediterranean theme for development within the Specific Plan area. The Guidelines allow variations to accommodate residential design considerations. The residential buildings proposed for the project have smooth stucco walls, accented with stone veneer, metal railings and built-up flat roof. The architecture includes the use of strong color profiles and textured material to create contrast and visual interest; façade articulations to reduce building massing and volume; and deep recessed entryways to create a pedestrian friendly environment. The contemporary, streamlined exteriors present architectural features and a color scheme similar to the Home2 Suites hotel project to the north, and the Terrano Apartments Phase I project to the west. This results in a unified design style within Planning Area 1. Renderings for the proposed project are attached as Exhibit 6.

Access And Circulation

Access to the project site is provided from Fashion Drive, which connects to Temescal Canyon Road and Dos Lagos Drive. The entrance to the north and south portions of the project are located at the west perimeter of the project site. All internal drive aisles within the project are 24 to 28 feet in width. The main drive aisles are 28 feet in width, as required by the Fire Department. The applicant's Circulation Plan is attached as Exhibit 7.

The section of Temescal Canyon Road adjacent to the project site is fully improved; therefore, no additional improvement within the right-of-way or widening of the street is required with the project.

Landscaping, Fencing, and Walls

Exhibit 8 illustrates the landscape concept and perimeter fencing for the project. The planting schedule includes California-friendly, low and medium water-use materials. The conceptual landscape plan provides larger tree species adjacent to Temescal Canyon Road, which enhances the residential project. Both sides of Fashion Drive leading into the project's interior road are lined with shade trees, including evergreen African Sumac, deciduous Red Crape Myrtle, and evergreen Brisbane Box. The interior parking areas are enhanced with deciduous Glendora White Crape Myrtle trees, which have

bright colors when in bloom; and deciduous London Plane trees, which are fast-growing. The project also provides a row of planting hedge in front of carport spaces fronting Temescal Canyon Road, to reduce headlight glare impact.

Perimeter fencing, columns and driveway gates have consistent colors and designs as those existing at the Terrano Phase I project. This includes six-foot high tubular steel fencing, and steel framed driveway gates with seven-foot-high stone veneer pilasters. Pedestrian entries next to the driveway gates have perforated steel mesh for enhanced security.

Both areas on the north and south sides of Fashion Drive will have gated entrances. Per the applicant, the gates will be open during the daytime, and will be closed at night.

Site Amenities and Open Space

The project is required to provide a minimum of 100 square feet of common recreation area per unit, per the Dos Lagos Specific Plan. As proposed, the north portion of the project provides a lawn area and a pickleball court, totaling approximately 4,288-square-foot area. The south portion has approximately 1,270 square feet of open lawn area. In total, the project provides 5,558 square feet of recreation area, which complies with the Specific Plan's requirement. Furthermore, the applicant has stated that residents of the existing Terrano Phase I and the proposed Terrano Phase II will have reciprocal access to each project's amenities. The Terrano Phase I project has an on-site fitness center, a half basketball court, a barbeque island adjacent to a swimming pool, and a hot tub.

Each of the proposed residential units are required to have a minimum of 50 square feet of private open space. The proposed project provides open space in the form of uncovered decks accessible from each unit's great room or living room. Units with a Plan 7 and 8 layout have open space in the form of a patio adjacent to each unit's entrance.

Sign Program

The submitted site plan shows two entry monument signs at the intersection of Temescal Canyon Road and Fashion Drive. Each monument sign will be flanked by a palm trees. This is similar to the landscaping installed at the Encanto Apartment Homes' entry signs located across Temescal Canyon Road, to the east of the project. Details of the signs have been provided yet. The sign will be reviewed for compliance with the Dos Lagos Specific Plan sign criteria at the time of permit issuance.

ENVIRONMENTAL ANALYSIS

The City approved the original commercial project (PP2018-0003) and adopted a mitigated negative declaration (MND) for the commercial project on August 20, 2018. Staff has prepared an Addendum to the previously adopted MND for the proposed project, pursuant to Section 15164 of the State CEQA (California Environmental Quality Act) Guidelines. The City, as the lead agency, determined that the proposed project and the Addendum demonstrate that the environmental analysis, impacts, and mitigation requirements identified in the previously adopted MND remain substantively unchanged despite project modifications. The proposed project does not raise any new issues or result in impacts not previously analyzed in the prior MND, and none of the conditions described in Section 15162 of the State CEQA Guidelines requiring the preparation of a subsequent MND exist. The Addendum is attached as Exhibit 11.

FISCAL IMPACT

The applicant has paid the applicable application processing fees for the project.

PUBLIC NOTICE AND COMMENTS

A 10-day public notice was mailed to all property owners within a 500-foot radius of the project site, as well as advertised in the Sentinel Weekly News, and posted at the project site. As of the preparation of this report, staff has not received any correspondence regarding the proposed project.

STAFF ANALYSIS

CUP2023-0002 is the last undeveloped site within Planning Area 1. Due to change in market conditions, the applicant is proposing to develop 50 multi-family units in place of the approved restaurant and retail uses previously approved for the site under PP2018-0003. Located along both sides of Fashion Drive, the proposed multi-family residential use allows residents to be less car dependent and encourages pedestrian connectivity with recreational amenities and neighborhood serving commercial uses, which are within walking distance. The interior roads within Planning Area 1 provide safe sidewalks and landscaping buffer, creating a friendly village environment that facilitates people movements within Planning Area 1. The design of the proposed project complies with the minimum standards of the Dos Lagos Specific Plan, and is consistent and compatible with existing projects nearby.

The Planning and Development Department recommends approval of CUP2023-0003 based on the following findings of approval and the recommended Conditions of Approval, which are attached as Exhibit 9.

FINDINGS OF APPROVAL FOR CUP2023-0002

1. The project was previously evaluated under a Mitigated Negative Declaration (MND) which was adopted by the City Council on August 20, 2018. Pursuant to Section 15164 of the State CEQA (California Environmental Quality Act) Guidelines, the City as the lead agency determined that the proposed project, and the Addendum to the previously adopted MND, demonstrate that the environmental analysis, impacts and mitigation requirements identified in the previously adopted MND remain substantively unchanged despite project modifications. The proposed project does not raise any new environmental issues or result in impacts not previously analyzed in the prior MND, and none of the conditions requiring the preparation of a subsequent MND, described in Section 15162 of the State CEQA Guidelines, exist.
2. All the conditions necessary for granting a Conditional Use Permit as set forth in Section 17.92.110 of the Corona Municipal Code do exist in reference to CUP2023-0002 for the following reasons:
 - a. *The proposed residential use at the proposed location within Planning Area 1 of the Dos Lagos Specific Plan will not be detrimental to the public health, safety, convenience and general welfare, and will be in harmony with the various elements and objectives in the City's General Plan, because the proposed project adheres to the permitted land use and applicable development standards prescribed by the Dos Lagos Specific Plan,*

and all necessary improvements will be, or conditioned to be, constructed to support the residential development.

- b. The proposed residential use at the proposed location is not detrimental to other existing and permitted uses within Planning Area 1 of the Dos Lagos Specific Plan, and relates properly to existing and proposed streets and highways, because the Dos Lagos Specific Plan identifies the subject site (Planning Area 1) as appropriate for mixed use development, which may include up to 450 multiple family residential units. The existing Terrano Phase I project consists of 276 dwelling units, such that the 50 proposed units will yield a total of 326 dwelling units within Planning Area 1. Furthermore, the project site is bounded on three sides by roadways and interior roads that have been previously improved, providing access to both sides of the project.*

3. The proposal is consistent with the General Plan for the following reasons:

- a. The proposed project is consistent with the General Plan Mixed Use I (Commercial/Residential) designation, which promotes a mix of commercial and residential development up to a Floor Area Ratio limit of 2.0 for either retail commercial and office uses or an integrated mix of commercial and residential, vertical or horizontal, on the same site. The proposed residential project combined with the hotel, convenience store and carwash that were approved and built under the original entitlement (PP2018-0003) have a combined Floor Area Ratio of 0.17, which does not exceed the General Plan's Floor Area Ratio limit of 2.0.*
- b. The proposed project is consistent with General Plan Goal LU-11 because it contributes to having a vital and active mixed-use district that provides housing in proximity to commercial uses, services, entertainment and public transit portals.*
- c. The proposed project implements General Plan Policy LU-14.1, which is to accommodate the development of properties for mixed use projects that integrate housing with retail, office, and other uses either in the same structure or on the same site.*
- d. The proposed project implements General Plan Policy 1.13.8 by promoting a high level of architectural quality and livability with multi-family residential development.*

4. The proposal is consistent with the C (Commercial) designation of the Dos Lagos Specific Plan (SP99-03) for the following reasons:

- a. The proposed multi-family residential use is permitted in Planning Area 1 of the Dos Lagos Specific Plan and has a density of 16.89 dwelling units per acre, which does not exceed the density limit of 36 dwelling units per acre established by the General Plan and Dos Lagos Specific Plan for residential condominium/apartments.*

b. The proposed project is designed to adhere to the development standards and applicable design guidelines imposed by the Dos Lagos Specific Plan.

PREPARED BY: EVA CHOI, ASSOCIATE PLANNER

REVIEWED BY: SANDRA YANG, SENIOR PLANNER

REVIEWED BY: JAY EASTMAN, PLANNING MANAGER

SUBMITTED BY: JOANNE COLETTA, PLANNING & DEVELOPMENT DIRECTOR

EXHIBITS:

1. Resolution No. 2612
2. Locational and zoning map
3. Site Plan, approved under PP2018-0003
4. Site plan, proposed for CUP2023-0002
5. Floor Plans
6. Elevation renderings and material palette
7. Circulation plan
8. Conceptual landscape and fence plan
9. Conditions of Approval
10. Applicant's letter dated May 11, 2023
11. Environmental documentation



RESOLUTION NO. 2612

APPLICATION NUMBER: CUP2023-0002

A RESOLUTION OF THE PLANNING AND HOUSING COMMISSION OF THE CITY OF CORONA, CALIFORNIA, GRANTING A CONDITIONAL USE PERMIT TO DEVELOP 50 APARTMENT UNITS ON 2.96 ACRES, LOCATED ON THE WEST SIDE OF TEMESCAL CANYON ROAD AND ON THE NORTH AND SOUTH SIDES OF FASHION DRIVE, IN THE COMMERCIAL DESIGNATION OF THE DOS LAGOS SPECIFIC PLAN. (PAT TRITZ OF REXCO DEVELOPMENT)

WHEREAS, the application to the City of Corona, California, for a Conditional Use Permit under the provisions of Chapter 17.92 in the Corona Municipal Code, has been duly submitted to said City's Planning and Housing Commission for a 50 unit apartment development on 2.96 acres, located on the west side of Temescal Canyon Road and on the north and south sides of Fashion Drive, in the Commercial Designation of the Dos Lagos Specific Plan; and

WHEREAS, the City of Corona, California, City Council previously approved a Precise Plan application (PP2018-0003) on August 20, 2018 for the project site and surrounding properties, which included the adoption of a Mitigated Negative Declaration (MND); and

WHEREAS, the Applicant's 50 unit development as proposed by CUP2023-0002 is to be located on a vacant, undeveloped property previously entitled by PP2018-0003 for restaurant and retail uses; and

WHEREAS, an Addendum to the PP2018-0003 MND was prepared in order to evaluate the land uses proposed by CUP2023-0002, pursuant to California Environmental Quality Act (CEQA) Guidelines section 15164; and

WHEREAS, the Planning and Housing Commission held a noticed public hearing for CUP2023-0002 on July 10, 2023, as required by law; and

WHEREAS, at the conclusion of the hearing the Planning and Housing Commission, pursuant to CEQA Guidelines Section 15164, considered the Addendum to the

EXHIBIT 1

previously approved Mitigated Negative Declaration (MND) that was prepared for PP2018-0003, and based on the information contained in the Addendum, the initial study and the administrative records for this project, including all written and oral evidence provided during the comment period and presented to the Planning and Housing Commission, the Commission finds that none of the conditions described in CEQA Guidelines Section 15162 have occurred, and a subsequent MND does not need to be prepared; and

WHEREAS, after close of said hearing, the Commission by formal action, found that all the conditions necessary to granting a Conditional Use Permit as set forth in Corona Municipal Code Section 17.92.110 do exist in reference to CUP2023-0002, based on the evidence presented to the Commission during said hearing; and

WHEREAS, the Planning and Housing Commission based its approval of the CUP2023-0002 on certain conditions of approval and the findings set forth below, and adoption of the MND Addendum.

NOW, THEREFORE, THE PLANNING AND HOUSING COMMISSION OF THE CITY OF CORONA, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION 1. CEQA Findings. The project was previously evaluated under a Mitigated Negative Declaration (MND) which was adopted by the City Council on August 20, 2018. Pursuant to Section 15164 of the State CEQA (California Environmental Quality Act) Guidelines, the City as the lead agency has reviewed and considered the Addendum to the previously adopted MND, and determined that the environmental analysis, impacts and mitigation requirements identified in the previously adopted MND remain substantively unchanged despite project modifications, the proposed project does not raise any new environmental issues or result in impacts not previously analyzed in the prior MND, and none of the conditions requiring the preparation of a Subsequent MND, as described in Section 15162 of the State CEQA Guidelines, exist.

SECTION 2. Conditional Use Permit Findings. Pursuant to Corona Municipal Code (“CMC”) section 17.92.110 and based on the entire record before the Planning and Housing Commission, including all written and oral evidence presented to the Commission, the Commission hereby makes and adopts the following findings:

1. The City of Corona has determined the prepared Amendment to the previously adopted PP2018-0003 Mitigated Negative Declaration (MND) is appropriate and adequate, pursuant to Section 15164 of the State CEQA Guidelines, as the proposed project does not raise any new environmental issues or result in impacts not previously analyzed in the prior MND, and none of the conditions requiring the preparation of a Subsequent MND, as described in Section 15162 of the State CEQA Guidelines, exist.
2. All the conditions necessary for granting a Conditional Use Permit as set forth in Section 17.92.110 of the Corona Municipal Code do exist in reference to CUP2023-0002 for the


following reasons:

- a. *The proposed residential use at the proposed location within Planning Area 1 of the Dos Lagos Specific Plan will not be detrimental to the public health, safety, convenience and general welfare, and will be in harmony with the various elements and objectives in the City's General Plan, because the proposed project adheres to the permitted land use and applicable development standards prescribed by the Dos Lagos Specific Plan, and all necessary improvements will be, or conditioned to be, constructed to support the residential development.*
 - b. *The proposed residential use at the proposed location is not detrimental to other existing and permitted uses within Planning Area 1 of the Dos Lagos Specific Plan, and relates properly to existing and proposed streets and highways, because the Dos Lagos Specific Plan identifies the subject site (Planning Area 1) as appropriate for mixed use development, which may include up to 450 multiple family residential units. The existing Terrano Phase I project consists of 276 dwelling units, such that the 50 proposed units will yield a total of 326 dwelling units within Planning Area 1. Furthermore, the project site is bounded on three sides by roadways and interior roads that have been previously improved, providing access to both sides of the project.*
 - c. *The project is subject to the Conditions of Approval attached as Exhibit 9, which are necessary and desirable for the purpose of protecting public health, safety, convenience, and general welfare of the public, in accordance with the intent and purpose of the City's zoning regulations.*
3. The proposal is consistent with the General Plan for the following reasons:
- a. *CUP2023-0002 is consistent with the project site's General Plan landuse designation of Mixed Use I (Commercial/Residential) designation, which promotes a mix of commercial and residential development up to a Floor Area Ratio limit of 2.0 for either retail commercial and office uses or an integrated mix of commercial and residential, vertical or horizontal, on the same site. The proposed residential project combined with the hotel, convenience store and carwash that were approved and built under the original entitlement (PP2018-0003) have a combined Floor Area Ratio of 0.17, which does not exceed the General Plan's Floor Area Ratio limit of 2.0.*
 - b. *The proposed project is consistent with General Plan Goal LU-11 because it contributes to having a vital and active mixed-use district that provides housing in proximity to commercial uses, services, entertainment and public transit portals.*
 - c. *The proposed project implements General Plan Policy LU-14.1, which is to accommodate the development of properties for mixed use projects that integrate housing with retail, office, and other uses either in the same structure or on the same site.*

Adopted this 10th day of July, 2023.


Craig Siqueland, Chair
Planning and Housing Commission
City of Corona, California

ATTEST:


Belinda Capilla
Secretary, Planning and Housing Commission
City of Corona, California


I, Belinda Capilla, Secretary to the Planning and Housing Commission of the City of Corona, California, do hereby certify that the foregoing Resolution was regularly introduced and adopted in a regular session of said Planning and Housing Commission duly called and held on the 10th day of July, 2023, and was duly passed and adopted by the following vote, to wit:

AYES: Siqueland, Sherman, Alexander, Vernon & Woody

NOES: None

ABSENT: None

ABSTAINED: None


Belinda Capilla
Secretary, Planning and Housing Commission
City of Corona, California

LOCATIONAL & ZONING MAP



Zoning Legend

- C - Commercial
- G - Golf
- RR - Resort Residential

Unincorporated Riverside
County Jurisdiction



Date: 07/06/2023

CUP2023-0002



EXHIBIT 2

PARKING SUMMARY

BUILDING (USE)	AREA	RATIO	REQUIRED	PROVIDED
NORTH				
HOTEL	64,065 SF - 101 KEYS (1:1+2 MGR) = 103 SP		= 103 SP	= 103 SP
BUILDING B (RESTAURANT)	5,000 SF (.01)		= 50 SP	= 50 SP
BUILDING C (RETAIL)	4,000 SF (.005)		= 20 SP	= 20 SP
SHARED STREET SPACES NORTH			= 15 SP	= 15 SP
TOTAL NORTH COMMERCIAL	73,065 SF		= 173 SP	= 188 SP
SOUTH				
BUILDING A				
RESTAURANT	3,500 SF (.01)		= 35 SP	= 30 SP
RETAIL	2,600 SF (.005)		= 13 SP	= 11 SP
BUILDING D (RESTAURANT)	2,500 SF (.01)		= 25 SP	= 19 SP
GAS STATION	7,200 SF (.004)		= 29 SP	= 29 SP
CARWASH	2,000 SF (.01)		= 2 SP	= 2 SP
SHARED STREET SPACES SOUTH			= 14 SP	= 14 SP
TOTAL SOUTH COMMERCIAL	17,800 SF		= 104 SP	= 105 SP
TOTAL COMMERCIAL	90,865 SF		= 277 SP	= 293 SP

COMMERCIAL TRASH SUMMARY

COMMERCIAL ZONE	AREA	RATIO	REQUIRED	PROVIDED
NORTH	73,065 SF	60 SF : 10,000 SF	439 SF	690 SF
SOUTH	17,800 SF	60 SF : 10,000 SF	107 SF	340 SF

PROJECT SUMMARY

COMMERCIAL NORTH	4.33 ACRES (188,895 SF)
COMMERCIAL SOUTH	2.98 ACRES (130,078 SF)
APN# 279-450-015, 016, 017, 018, 019, 023, 024.	
ZONING	C-COMMERCIAL
GENERAL PLAN	MU

COMMERCIAL SUMMARY

COMMERCIAL NORTH	4.33 ACRES (188,895 SF)
FLOOR AREA RATIO	73,065 SF = .39 FAR
COMMERCIAL SOUTH	2.98 ACRES (130,078 SF)
FLOOR AREA RATIO	17,800 SF = .14 FAR
TOTAL SITE AREA	7.31 ACRES (318,973 SF)
TOTAL FLOOR AREA	90,865 SF = .28 FAR

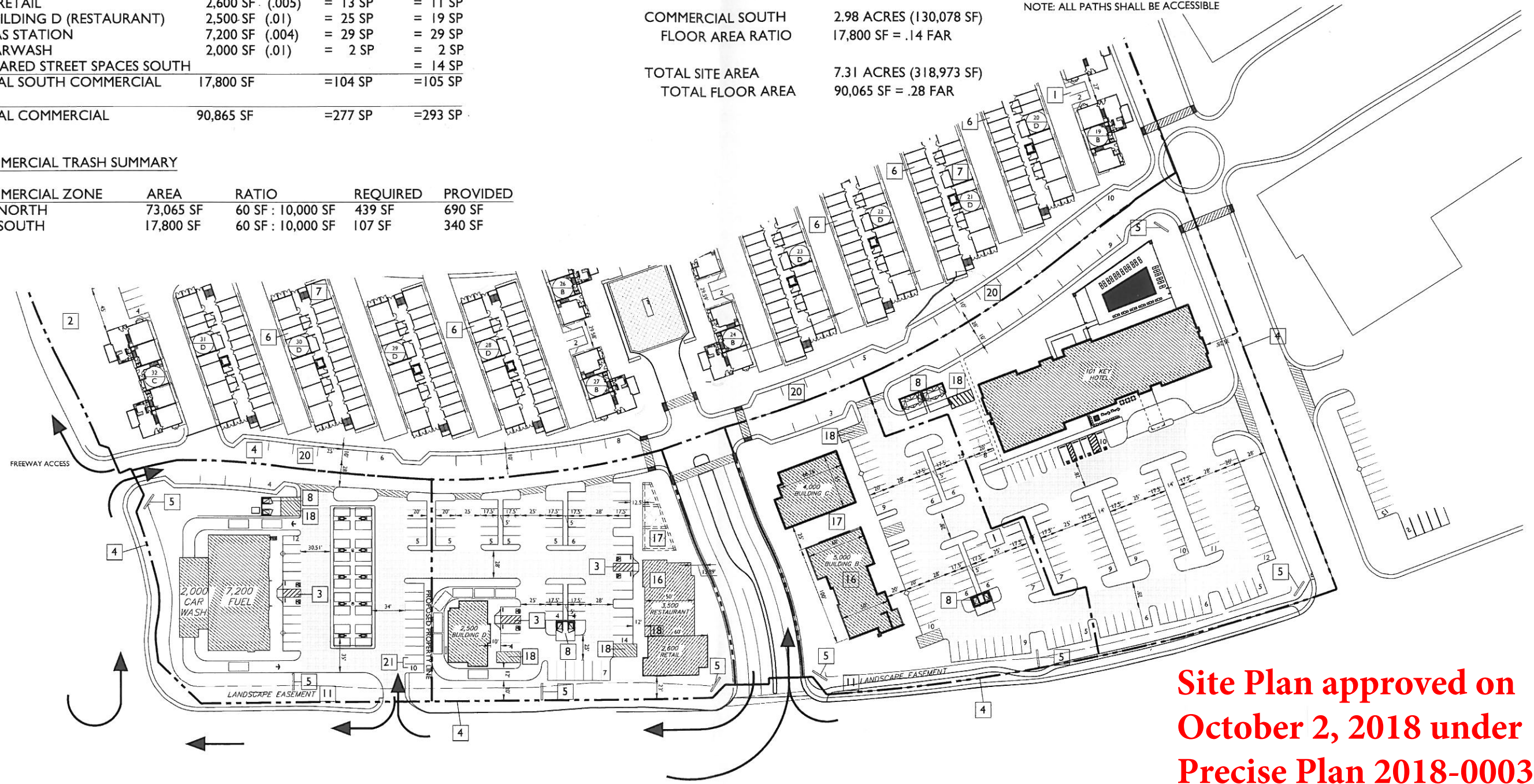
SITE PLAN NOTES

- | | |
|---|---------------------------------------|
| 1 OPEN PARKING STALL - 9' X 20' TYPICAL | 11 EASEMENT |
| 2 OPEN SPACE | 12 REC AND LEASING AREA |
| 3 ACCESSIBLE PARKING | 13 POOL |
| 4 PROPERTY LINE | 14 TOT LOT |
| 5 ENTRY MONUMENT | 15 SPORT COURTS |
| 6 1 CAR GARAGE (10' X 20') | 16 COMMERCIAL TBD |
| 7 2 CAR GARAGE (20' X 20') | 17 COMMERCIAL PLAZA |
| 8 TRASH ENCLOSURE | 18 COMMERCIAL LOADING (12' W X 25' L) |
| 9 TRASH PICK-UP LOCATION | 19 20' WIDE STORM DRAIN EASEMENT |
| 10 GATE WITH KNOX BOX | 20 PARALLEL PARKING STALL - 10' X 25' |
| | 21 AIR/VACUUM STALL |

LEGEND

- ACCESSIBLE STALL
- BICYCLE PARKING
- 10'X10' CORNER CUT-OFF

NOTE: ALL PATHS SHALL BE ACCESSIBLE



**Site Plan approved on
October 2, 2018 under
Precise Plan 2018-0003.**

TERRANO

REXCO DEVELOPMENT
2518 NORTH SANTIAGO BLVD.
ORANGE, CA. 92867
951.898.1502

PA-1

JULY 20, 2018
SCALE: 0 40 80 120

CO



EXHIBIT 3

RESIDENTIAL PROJECT SUMMARY
TWO-STORY TOWNS AND THREE-STORY FLATS

PROPERTY INFORMATION

HOMES	50 DU
TOTAL AREA	2.96 AC
NORTH	1.47 AC
SOUTH	1.49 AC
DENSITY	16.89 DU/AC
ZONING	C (SP-99-03)
GENERAL PLAN	COMMERCIAL
PROPOSED LAND USE	RESIDENTIAL
APN	279-450-015,019

NEW APARTMENTS UNIT MIX

PLAN 1	1 BED FLAT	600 SF	4 UNITS
PLAN 2	1 BED FLAT	640 SF	6 UNITS
PLAN 3	1 BED TH	820 SF	10 UNITS
PLAN 4	1 BED TH	830 SF	5 UNITS
PLAN 5	2 BED FLAT	830 SF	4 UNITS
PLAN 6	2 BED FLAT	830 SF	6 UNITS
PLAN 7	2 BED TH	1,085 SF	10 UNITS
PLAN 8	3 BED TH	1,265 SF	5 UNITS
TOTAL			50 UNITS

PARKING SUMMARY

REQUIRED		
25 1 BD X 1.5		37.5 SP
20 2 BD X 2.0		40 SP
5 3BD X 2.5		12.5 SP
50 GUEST X .2		10 SP
TOTAL REQUIRED	90 covered SP	10 uncovered guest SP

PROVIDED		
GARAGES		57 SP
CARPORT		33 SP
OPEN		22 SP
PARALLEL		12 SP
TOTAL PROVIDED	124 (2.48 SP/DU)	

GARAGE SUMMARY

BLDG A	2 X 6 SP	12 SP
BLDG B	2 X 9 SP	18 SP
BLDG C	1 X 15 SP	15 SP
BLDG D	2 X 6 SP	12 SP
TOTAL		57 SP

TRASH SUMMARY

REQUIRED		
6 SF X 50 DU		300 SF
PROVIDED		300 SF

ELECTRIC VEHICLE SUMMARY

TOWNHOMES
EV CAPABLE 45 GARAGE SPACES REQ / PROVIDED

FLATS

EV CAPABLE- 10% X 39 SP 4 SP REQUIRED / PROVIDED
EV READY- 25% X 39 SP 10 SP REQUIRED / PROVIDED
EV CHARGER- 5% X 39 SP 2 SP REQUIRED / PROVIDED

ACCESSIBLE PARKING SUMMARY

ASSIGNED
72 SP X 2% = 2 SP REQUIRED/PROVIDED
UNASSIGNED
10 SP X 5% = 1 SP REQUIRED/PROVIDED





ATTACHED PRIVATE GARAGES

15 UNITS X 10% = 2 ACCESSIBLE MULTISTORY UNITS
WITH ATTACHED PRIVATE GARAGES COMPLYING WITH
CBC 1109A.2.I.

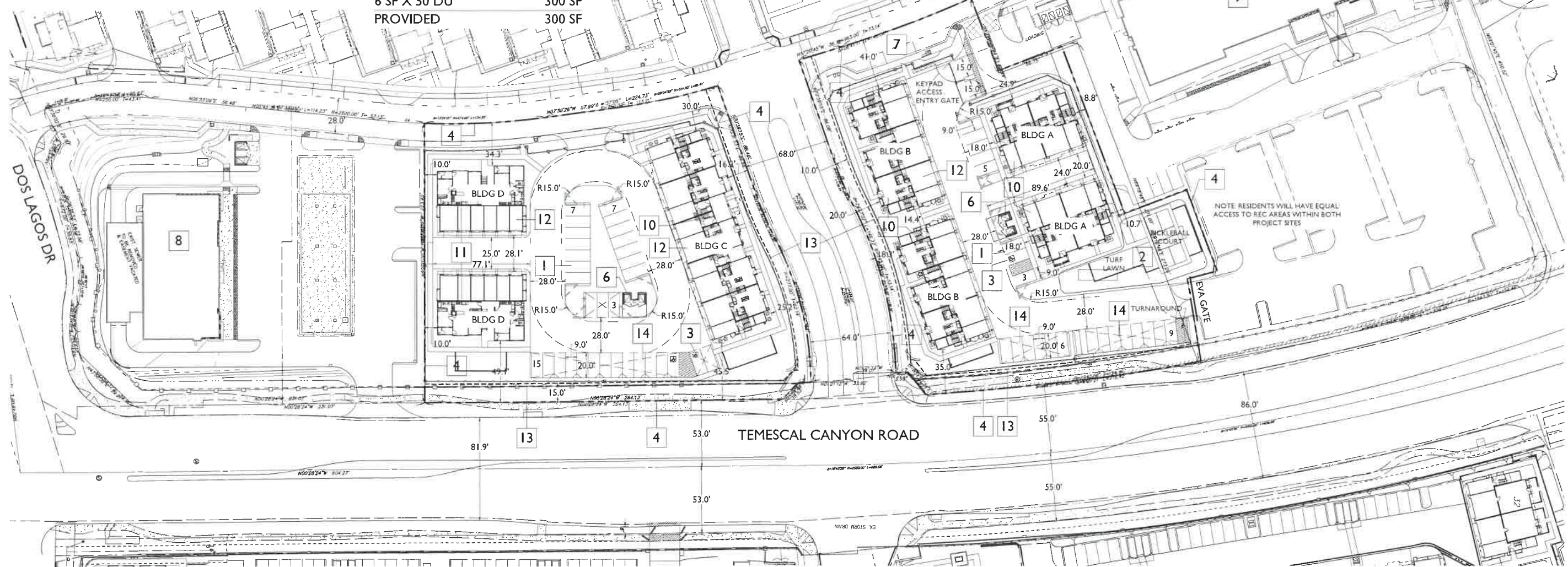
SITE PLAN NOTES

- 1 OPEN PARKING STALL - 9' X 20' TYPICAL
- 2 REC AREA - 5,000 SF
- 3 ACCESSIBLE PARKING
- 4 PROPERTY LINE
- 5 ENTRY MONUMENT
- 6 TRASH ENCLOSURE
- 7 PARALLEL PARKING STALL - 10' X 25'
- 8 EXISTING GAS STATION
- 9 EXISTING HOTEL
- 10 TWO-STORY TOWNHOMES
- 11 THREE-STORY FLATS
- 12 GARAGE PARKING STALL
- 13 SETBACKS
- 14 CARPORT

LEGEND

- ACCESSIBLE STALL 
- BICYCLE PARKING 
- 10'X10' CORNER CUT-OFF 
- PROPERTY LINE 



NOTE: ALL PATHS SHALL BE ACCESSIBLE



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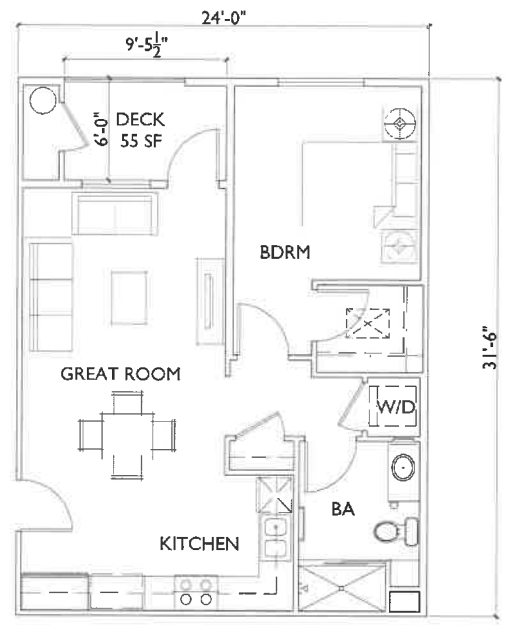
MAY 5, 2023
SCALE:  

CONCEPTUAL SITE PLAN

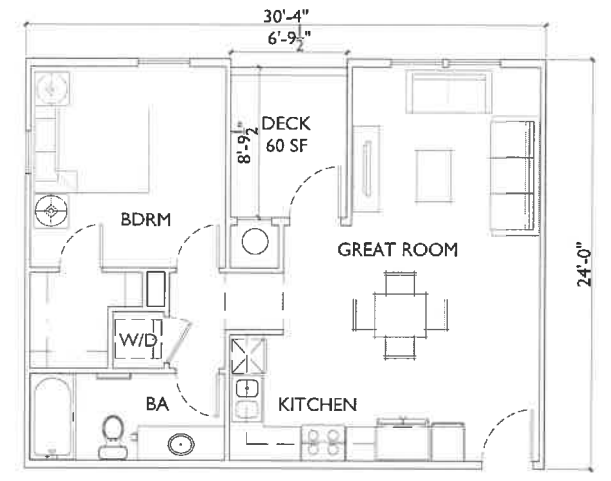


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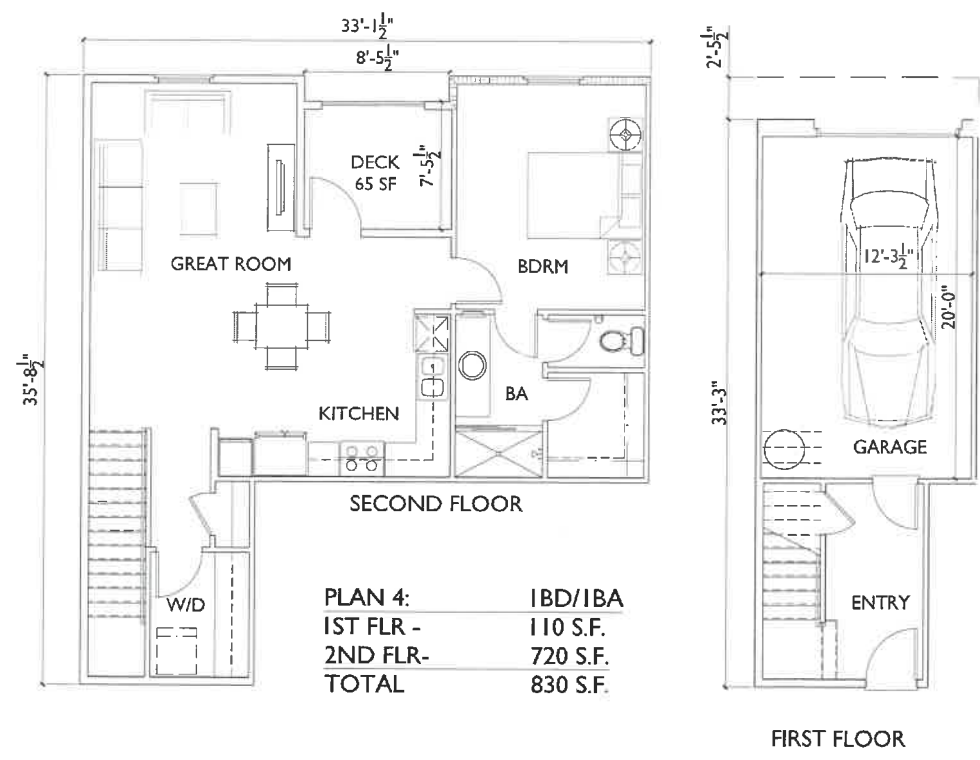
EXHIBIT 4



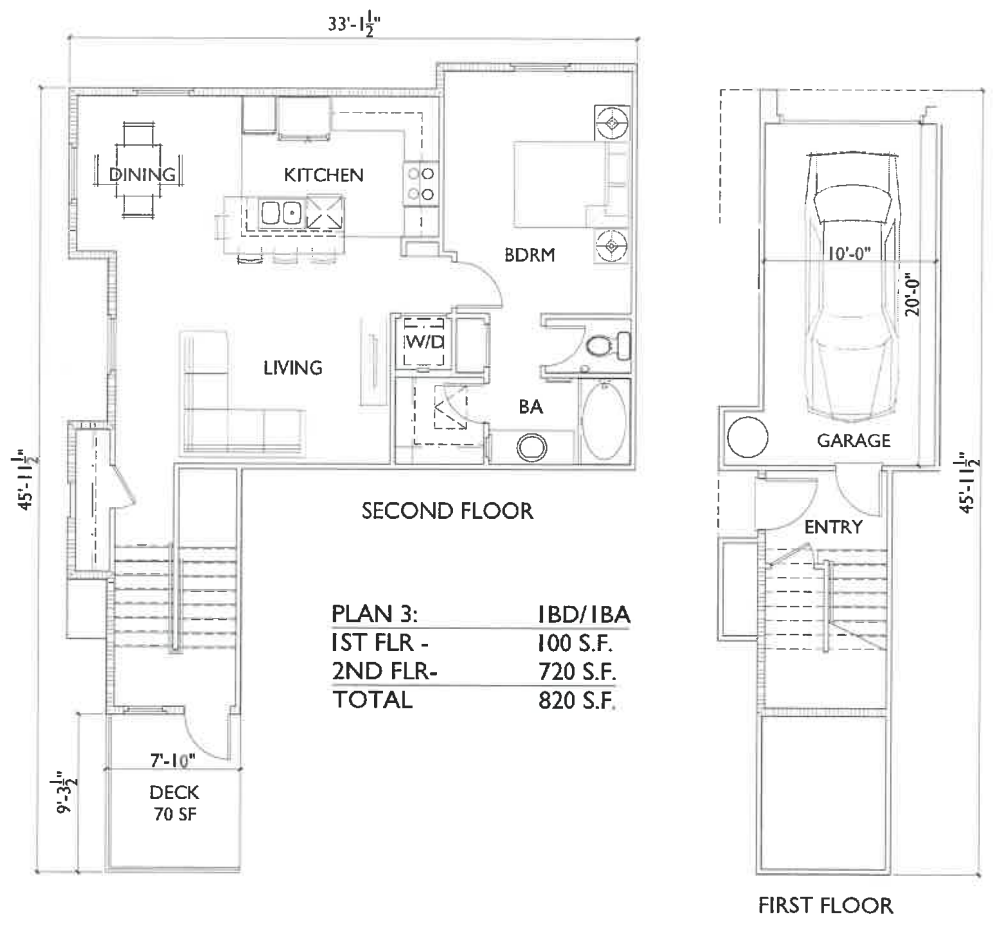
PLAN 2: IBD/IBA
TOTAL 640 S.F.



PLAN 1: IBD/IBA
TOTAL 600 S.F.



PLAN 4: IBD/IBA
1ST FLR - 110 S.F.
2ND FLR - 720 S.F.
TOTAL 830 S.F.



PLAN 3: IBD/IBA
1ST FLR - 100 S.F.
2ND FLR - 720 S.F.
TOTAL 820 S.F.

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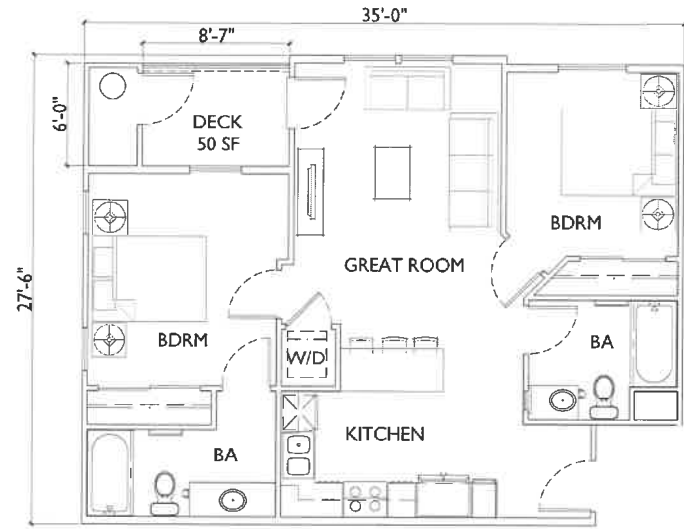


UNIT PLANS

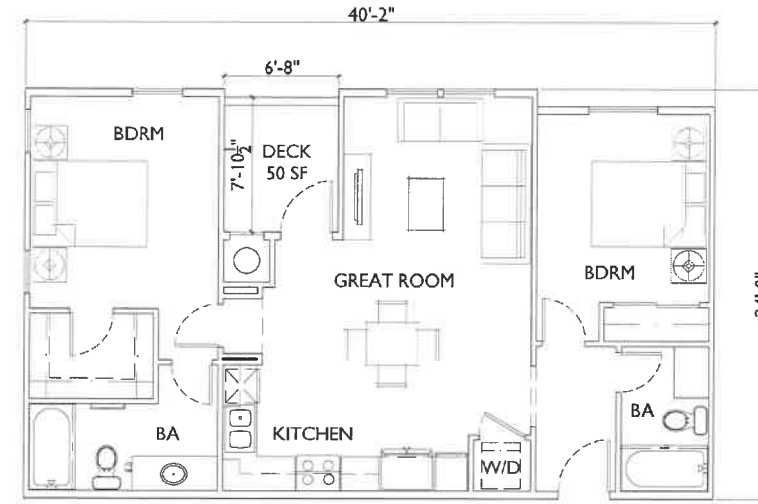


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EXHIBIT 5

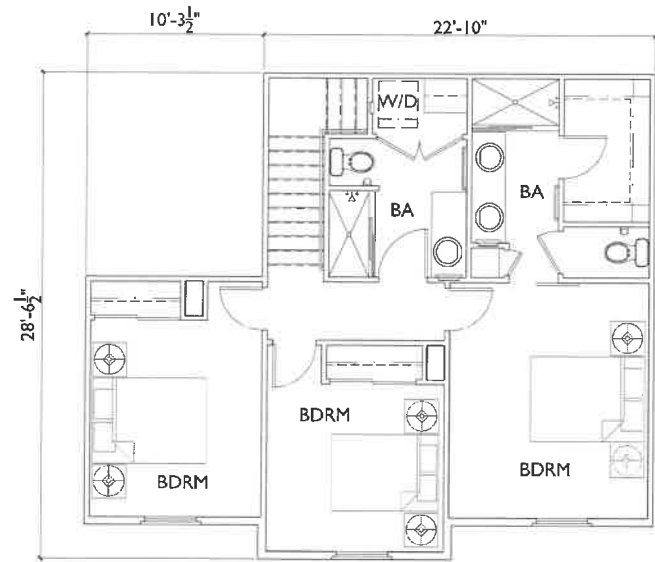


PLAN 6: 2BD/2BA
TOTAL 830 S.F.

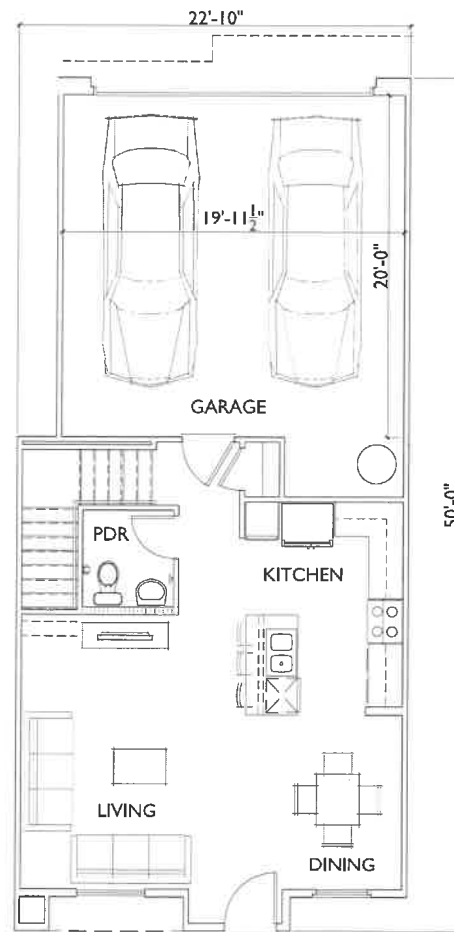


PLAN 5: 2BD/2BA
TOTAL 830 S.F.

PLAN 8:
3BD/2.5BA
1ST FLR - 570 S.F.
2ND FLR- 695 S.F.
TOTAL 1,265 S.F.

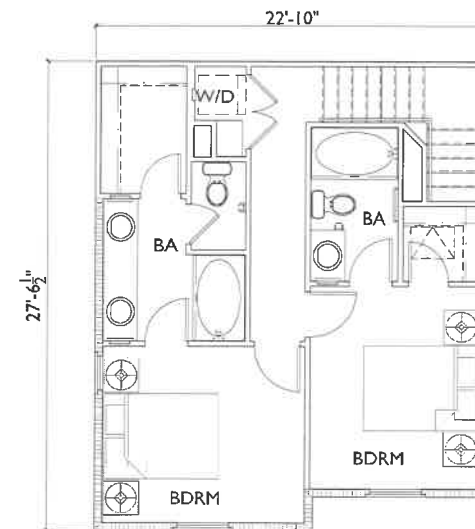


SECOND FLOOR

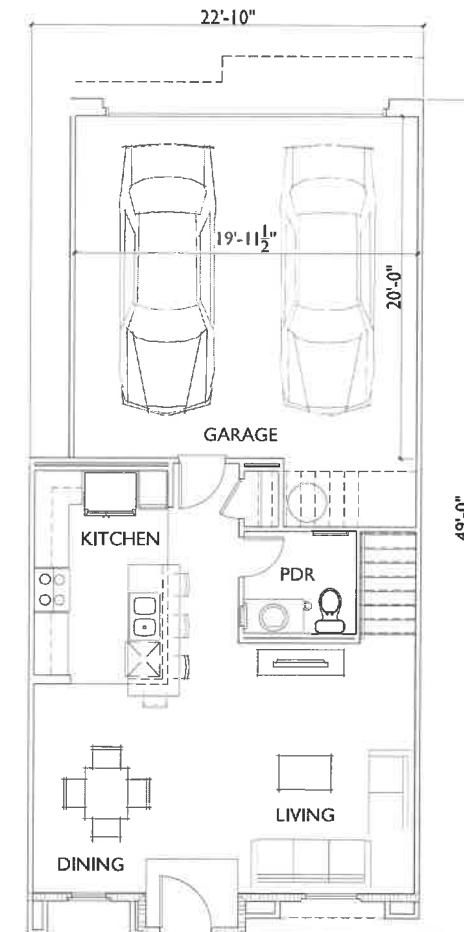


FIRST FLOOR

PLAN 7:
2BD/2.5BA
1ST FLR - 540 S.F.
2ND FLR- 545 S.F.
TOTAL 1,085 S.F.



SECOND FLOOR



FIRST FLOOR

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SCALE: 0 4 8 12

UNIT PLANS



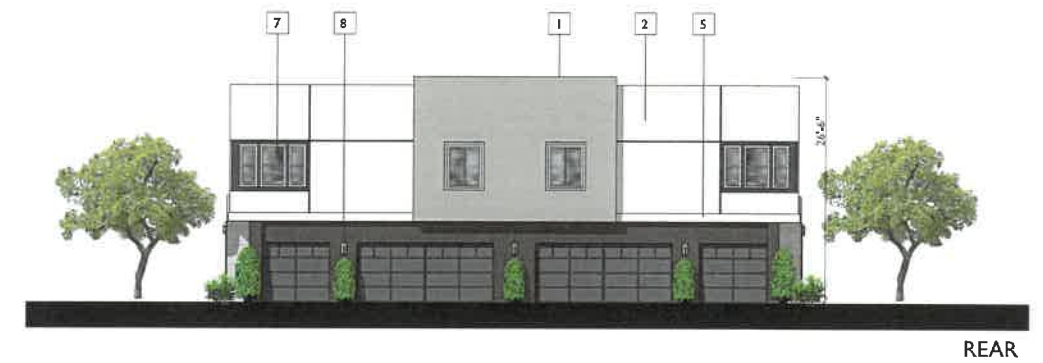
5256 S. Mission Road, Ste 404
Bonsall, CA 92003
760.724.1198

MATERIAL SCHEDULE

- 1 ROOF - BUILT-UP PARAPET
- 2 WALL - STUCCO
- 3 WALL - STONE VENEER
- 4 STUCCO REGLET
- 5 TRIM - 2X STUCCO OVER
- 6 METAL RAILING
- 7 VINYL WINDOW
- 8 EXTERIOR LIGHT



RIGHT



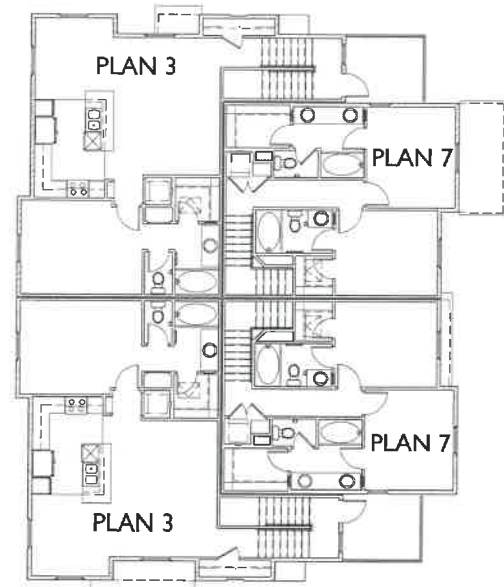
REAR



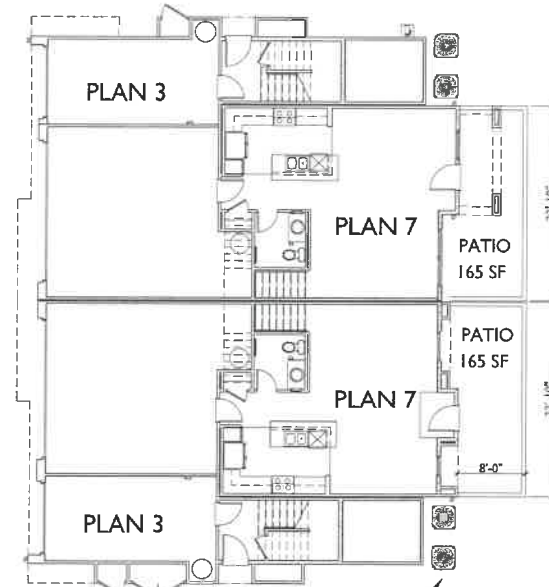
LEFT



FRONT



SECOND FLOOR



FIRST FLOOR



PERSPECTIVE

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APRIL 11, 2023

SCALE: 0 8 16 24

BUILDING A

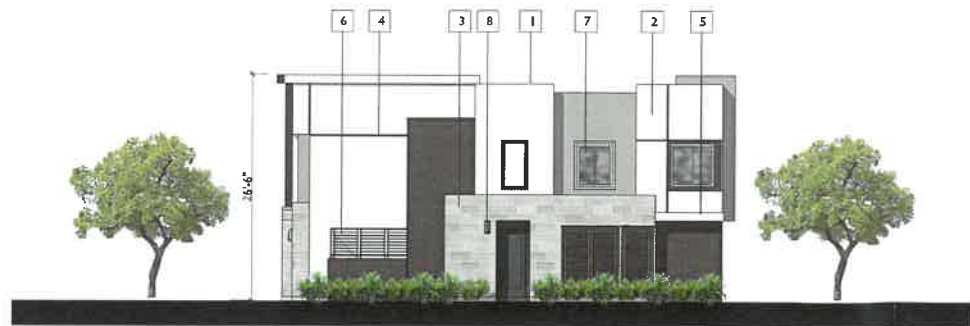


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EXHIBIT 6

MATERIAL SCHEDULE

- 1 ROOF - BUILT-UP PARAPET
- 2 WALL - STUCCO
- 3 WALL - STONE VENEER
- 4 STUCCO REGLET
- 5 TRIM - 2X STUCCO OVER
- 6 METAL RAILING
- 7 VINYL WINDOW
- 8 EXTERIOR LIGHT



RIGHT



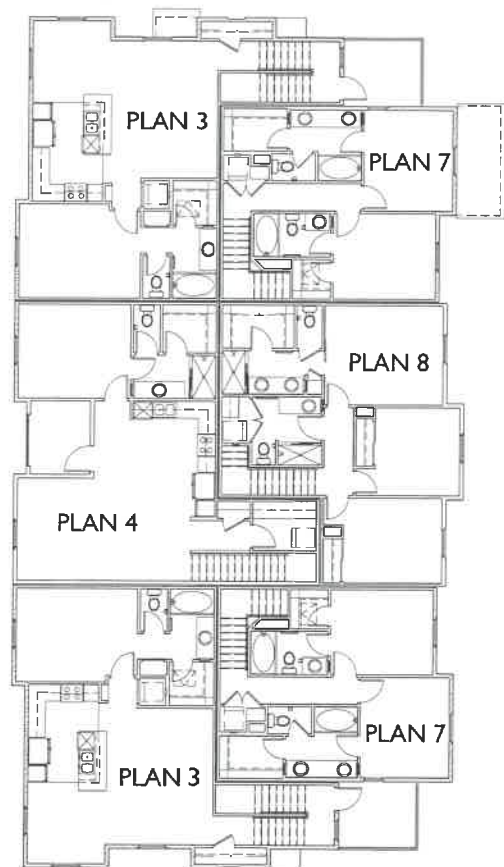
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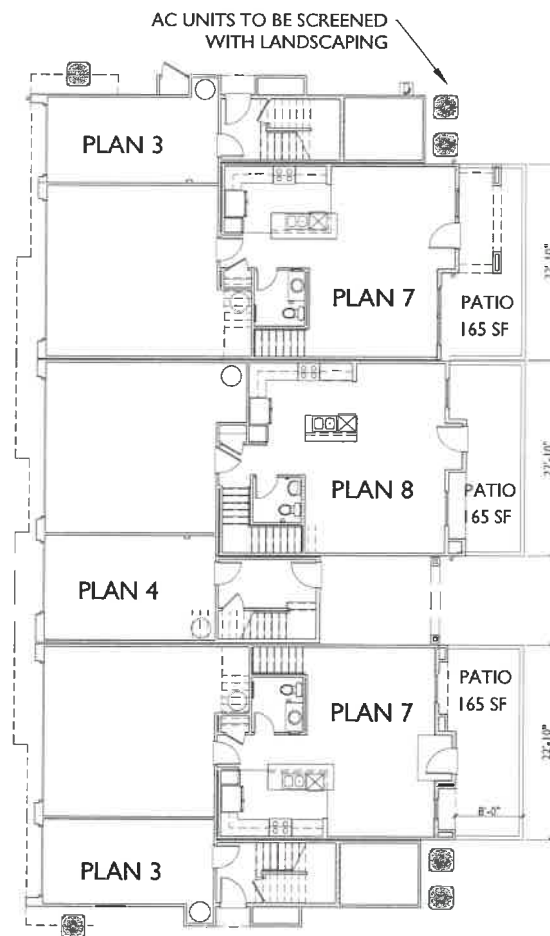
LEFT



FRONT



SECOND FLOOR



FIRST FLOOR



PERSPECTIVE

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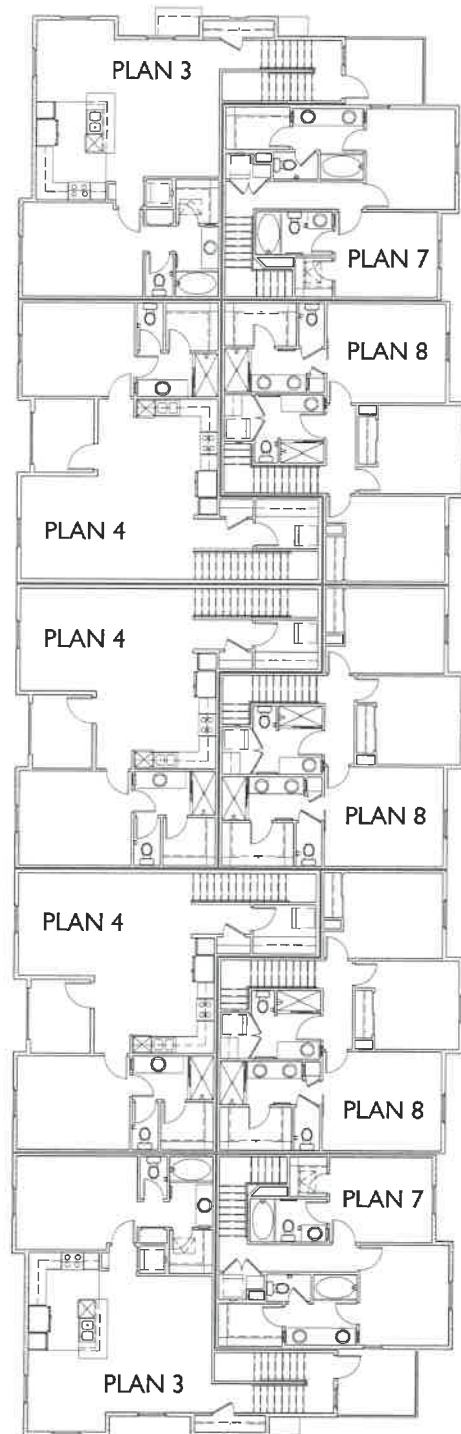
APRIL 11, 2023

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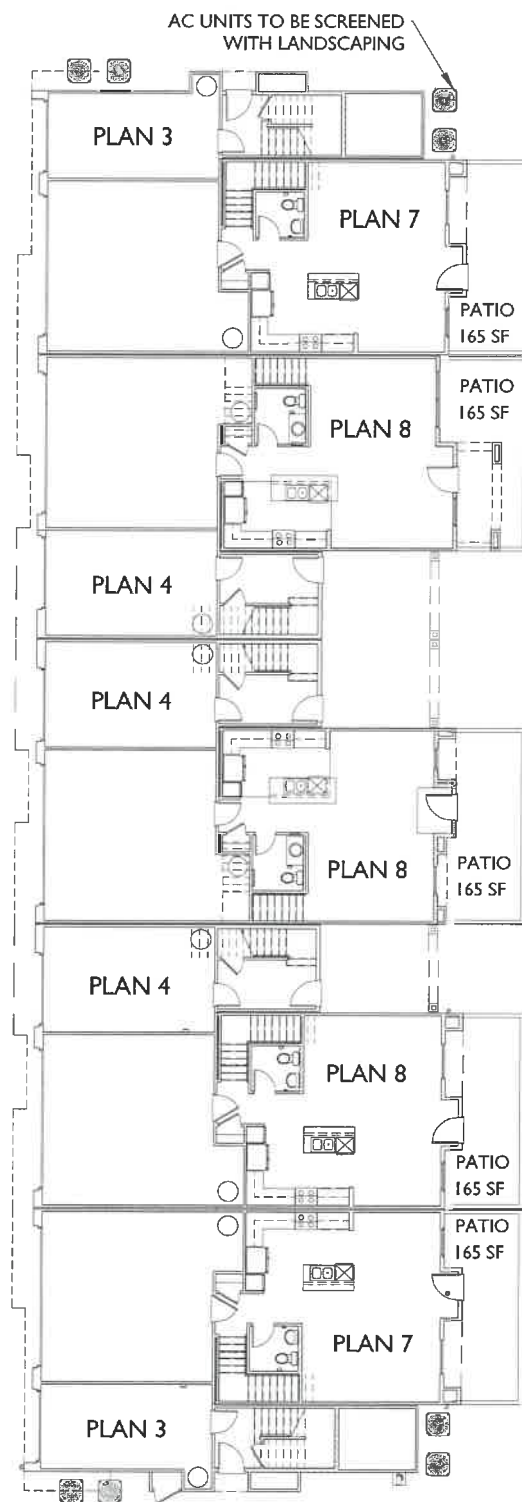
BUILDING B



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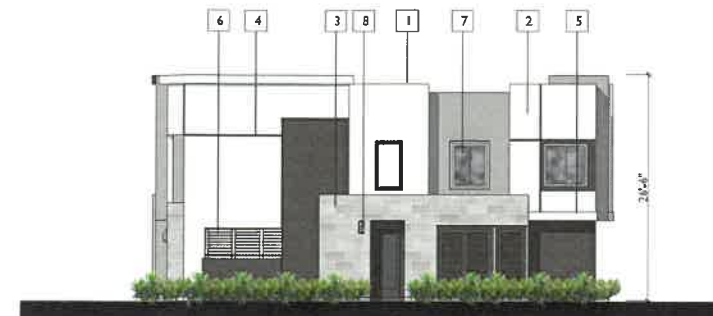
SECOND AND THIRD FLOOR



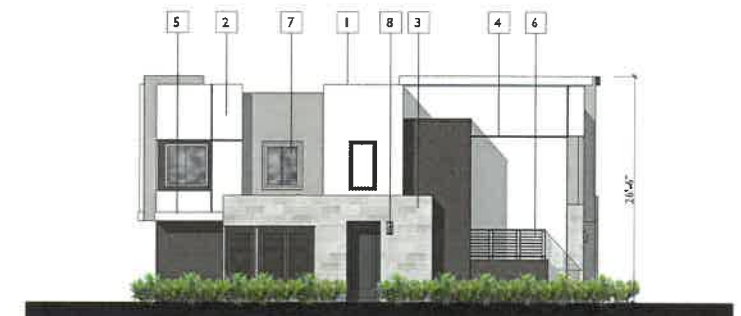
FIRST FLOOR



REAR



RIGHT



LEFT



FRONT

MATERIAL SCHEDULE

- 1 ROOF - BUILT-UP PARAPET
- 2 WALL - STUCCO
- 3 WALL - STONE VENEER
- 4 STUCCO REGLET
- 5 TRIM - 2X STUCCO OVER
- 6 METAL RAILING
- 7 VINYL WINDOW
- 8 EXTERIOR LIGHT



PERSPECTIVE

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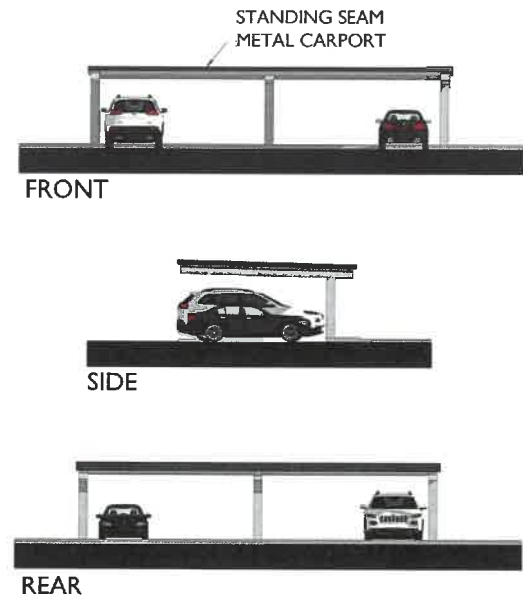
APRIL 11, 2023

SCALE: 0 8 16 24

BUILDING C



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CARPORT

MATERIAL SCHEDULE

- 1 ROOF - BUILT-UP PARAPET
- 2 WALL - STUCCO
- 3 WALL - STONE VENEER
- 4 STUCCO REGLET
- 5 TRIM - 2X STUCCO OVER
- 6 METAL RAILING
- 7 VINYL WINDOW
- 8 EXTERIOR LIGHT



RIGHT



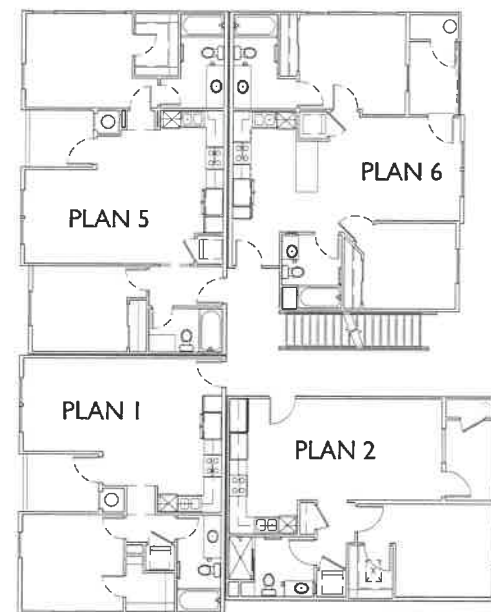
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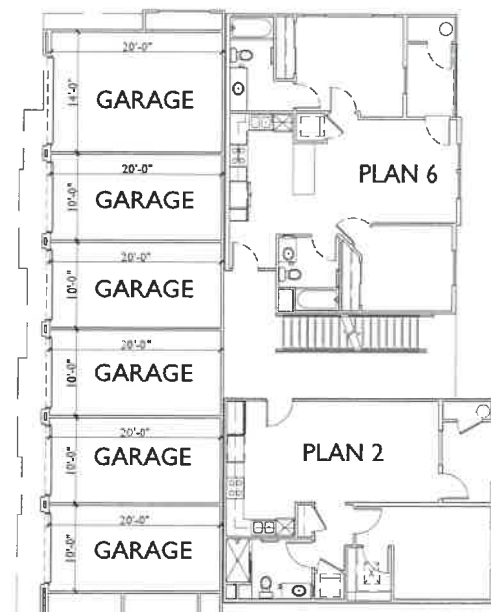
LEFT



FRONT



SECOND AND THIRD FLOOR



FIRST FLOOR



PERSPECTIVE

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APRIL 11, 2023

SCALE: 0 8 16 24

BUILDING D



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TERRANO II APARTMENTS

MANUFACTURER:
SHERWIN-WILLIAMS
CORONADO STONE

CORONA, CA.
REXCO DEVELOPMENT
2518 NORTH SANTIAGO BLVD.
ORANGE, CA 92867

SUMMA
ARCHITECTURE
5256 S. MISSION RD. STE 404
BONSALL, CA. 92003
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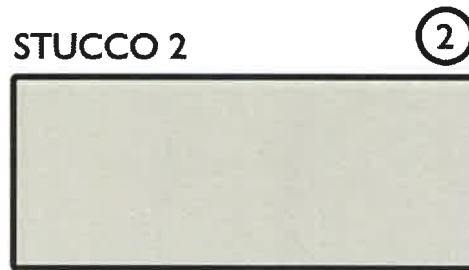


BUILDING D

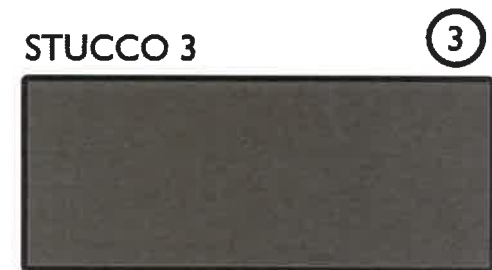
BUILDING B



PURE WHITE SW 7005



COLONAIDE GRAY SW 7641



BLACK FOX SW 7020



SAGE GREEN LIGHT SW 2851

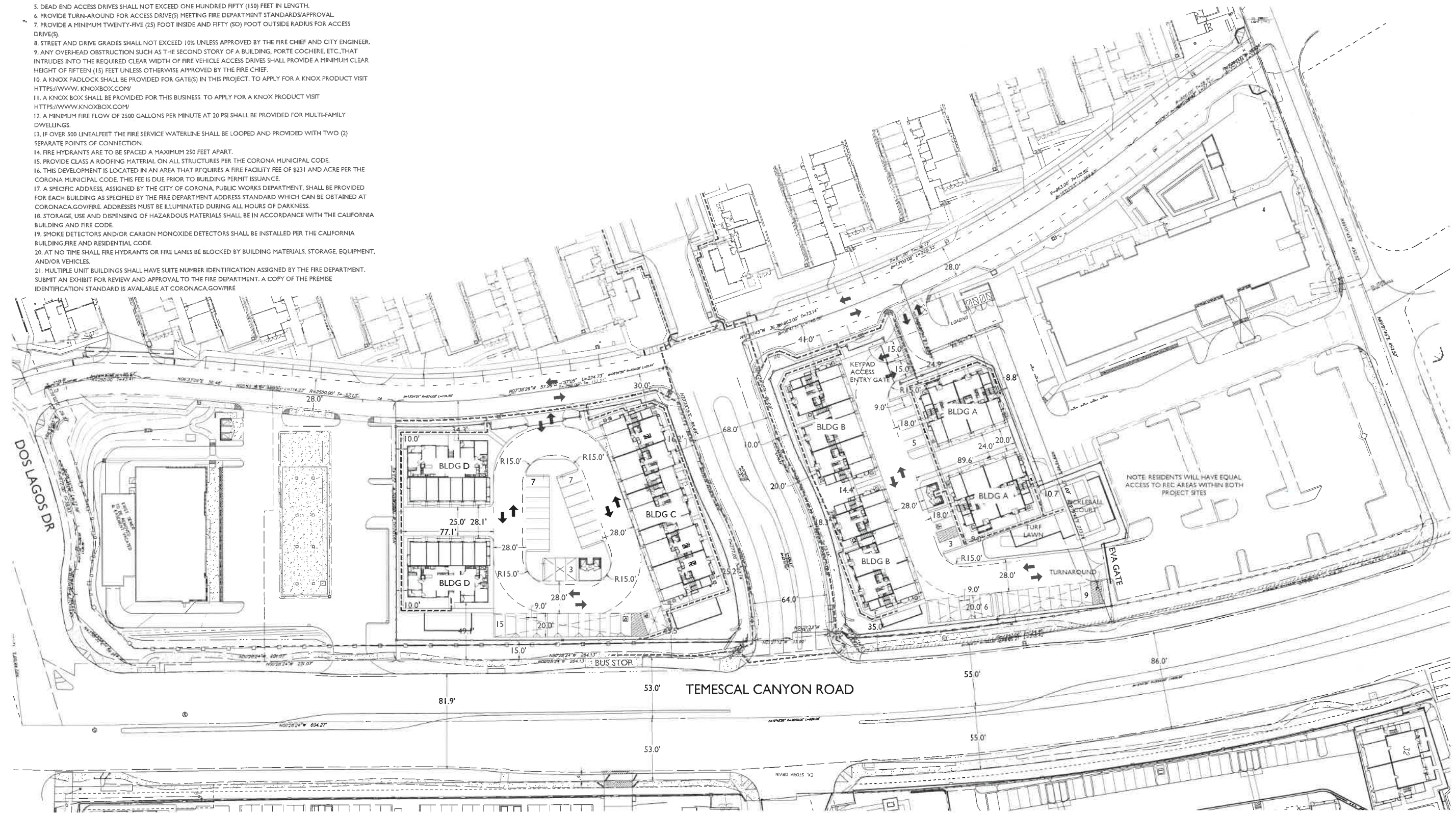
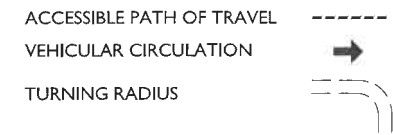


8" CLASSIC JERUSALEM - SILVER ASH
OR SIMILAR

FIRE DEPARTMENT DPR COMMENTS

1. PLACE FIRE DEPARTMENT DPR COMMENTS ON PLANS AS GENERAL NOTES.
2. PLANS SHALL SHOW A MINIMUM DRIVE WIDTH OF 28 FEET.
3. SHOW TWO (2) ALL WEATHER SURFACE ACCESS WAYS TO BE APPROVED BY THE FIRE MARSHAL AND CONSTRUCT THE ACCESS WAY(S) TO ACCOMMODATE 70,000 LBS. GROSS VEHICLE WEIGHT DURING ALL PHASES OF CONSTRUCTION.
4. ALL PROJECTS SHALL COMPLY WITH THE CITY OF CORONA FIRE DEPARTMENT SITE CONSTRUCTION STANDARD. A COPY OF WHICH IS AVAILABLE AT THE CORONACA.GOV. PROJECTS SHALL HAVE APPROVED ALL WEATHER ACCESS FROM TWO (2) DIRECTIONS AND FIRE HYDRANTS PROVIDING THE REQUIRED FIRE FLOW TESTED AND ACCEPTED PRIOR TO COMBUSTIBLE CONSTRUCTION.
5. DEAD END ACCESS DRIVES SHALL NOT EXCEED ONE HUNDRED FIFTY (150) FEET IN LENGTH.
6. PROVIDE TURN-AROUND FOR ACCESS DRIVE(S) MEETING FIRE DEPARTMENT STANDARDS/APPROVAL.
7. PROVIDE A MINIMUM TWENTY-FIVE (25) FOOT INSIDE AND FIFTY (50) FOOT OUTSIDE RADIUS FOR ACCESS DRIVE(S).
8. STREET AND DRIVE GRADES SHALL NOT EXCEED 10% UNLESS APPROVED BY THE FIRE CHIEF AND CITY ENGINEER.
9. ANY OVERHEAD OBSTRUCTION SUCH AS THE SECOND STORY OF A BUILDING, PORTE COCHERE, ETC., THAT INTRUDES INTO THE REQUIRED CLEAR WIDTH OF FIRE VEHICLE ACCESS DRIVES SHALL PROVIDE A MINIMUM CLEAR HEIGHT OF FIFTEEN (15) FEET UNLESS OTHERWISE APPROVED BY THE FIRE CHIEF.
10. A KNOX PADLOCK SHALL BE PROVIDED FOR GATE(S) IN THIS PROJECT. TO APPLY FOR A KNOX PRODUCT VISIT [HTTPS://WWW.KNOXBOX.COM/](https://www.knoxbox.com/)
11. A KNOX BOX SHALL BE PROVIDED FOR THIS BUSINESS. TO APPLY FOR A KNOX PRODUCT VISIT [HTTPS://WWW.KNOXBOX.COM/](https://www.knoxbox.com/)
12. A MINIMUM FIRE FLOW OF 2500 GALLONS PER MINUTE AT 20 PSI SHALL BE PROVIDED FOR MULTI-FAMILY DWELLINGS.
13. IF OVER 500 LINEAL FEET THE FIRE SERVICE WATERLINE SHALL BE LOOPED AND PROVIDED WITH TWO (2) SEPARATE POINTS OF CONNECTION.
14. FIRE HYDRANTS ARE TO BE SPACED A MAXIMUM 250 FEET APART.
15. PROVIDE CLASS A ROOFING MATERIAL ON ALL STRUCTURES PER THE CORONA MUNICIPAL CODE.
16. THIS DEVELOPMENT IS LOCATED IN AN AREA THAT REQUIRES A FIRE FACILITY FEE OF \$231 AND ACRE PER THE CORONA MUNICIPAL CODE. THIS FEE IS DUE PRIOR TO BUILDING PERMIT ISSUANCE.
17. A SPECIFIC ADDRESS, ASSIGNED BY THE CITY OF CORONA, PUBLIC WORKS DEPARTMENT, SHALL BE PROVIDED FOR EACH BUILDING AS SPECIFIED BY THE FIRE DEPARTMENT ADDRESS STANDARD WHICH CAN BE OBTAINED AT [CORONACA.GOV/FIRE](https://www.coronaca.gov/fire). ADDRESSES MUST BE ILLUMINATED DURING ALL HOURS OF DARKNESS.
18. STORAGE, USE AND DISPENSING OF HAZARDOUS MATERIALS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING AND FIRE CODE.
19. SMOKE DETECTORS AND/OR CARBON MONOXIDE DETECTORS SHALL BE INSTALLED PER THE CALIFORNIA BUILDING, FIRE AND RESIDENTIAL CODE.
20. AT NO TIME SHALL FIRE HYDRANTS OR FIRE LANES BE BLOCKED BY BUILDING MATERIALS, STORAGE, EQUIPMENT, AND/OR VEHICLES.
21. MULTIPLE UNIT BUILDINGS SHALL HAVE SUITE NUMBER IDENTIFICATION ASSIGNED BY THE FIRE DEPARTMENT. SUBMIT AN EXHIBIT FOR REVIEW AND APPROVAL TO THE FIRE DEPARTMENT. A COPY OF THE PREMISE IDENTIFICATION STANDARD IS AVAILABLE AT [CORONACA.GOV/FIRE](https://www.coronaca.gov/fire)

LEGEND

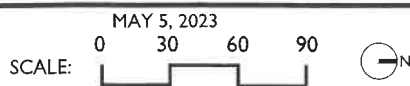


NOTE RESIDENTS WILL HAVE EQUAL ACCESS TO REC AREAS WITHIN BOTH PROJECT SITES

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CIRCULATION EXHIBIT

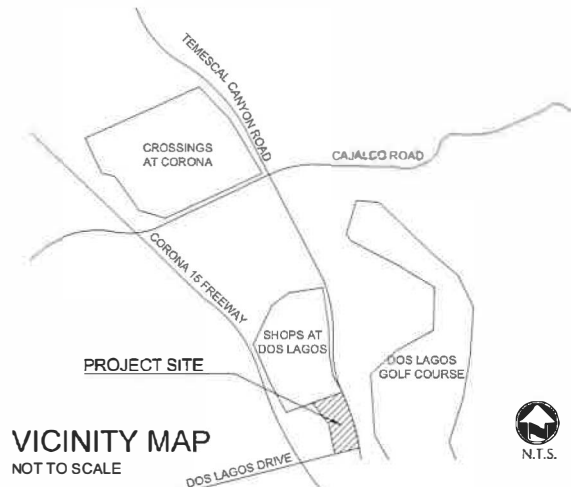


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EXHIBIT 7



PLANTING SCHEDULE				
TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS	QTY
	LAGERSTROEMIA INDICA 'GLENORA WHITE' GLENORA WHITE CRAPE MYRTLE MULTI-TRUNK	36"BOX	M	7
	LAGERSTROEMIA X 'TUSCARORA' RED CRAPE MYRTLE	36"BOX	M	24
	PHOENIX DACTYLIFERA DATE PALM	18" BTH	L	10
	PLATANUS RACEMOSA CALIFORNIA SYCAMORE	36"BOX	M	11
	PLATANUS X ACERIFOLIA 'BLOODGOOD' LONDON PLANE TREE	36"BOX	M	8
	RHUS LANCEA AFRICAN SUMAC	15 GAL	L	12
	TRISTANIA CONFERTA BRISBANE BOX	24"BOX	M	20
SHRUBS	BOTANICAL / COMMON NAME	SIZE	WUCOLS	
	AGAVE DESMETIANA 'VARIEGATA' VARIEGATED AGAVE	5 GAL	L	
	AGAVE X 'BLUE FLAME' BLUE FLAME AGAVE	5 GAL	L	
	CALLISTEMON X 'LITTLE JOHN' DWARF CALLISTEMON	5 GAL	L	
	CLYTOSTOMA CALLISTEIOIDES VIOLET TRUMPET VINE	5 GAL	M	
	DIANELLA TASMANICA 'VARIEGATA' VARIEGATED FLAX LILY	5 GAL	M	
	LIGUSTRUM JAPONICUM 'TEXANUM' WAX LEAF PRIVET	5 GAL	M	
	ROSA FLORIBUNDA 'ICEBERG' ICEBERG ROSE	5 GAL	M	
	STRELITZIA NICOLAI GIANT BIRD OF PARADISE	15 GAL	M	
	STRELITZIA REGINAE BIRD OF PARADISE	5 GAL	M	
GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	WUCOLS	
	CARISSA MACROCARPA 'GREEN CARPET' LOW GROWING NATAL PLUM	1 GAL @ 24" O.C.	L	
	LANTANA X 'NEW GOLD' NEW GOLD LANTANA	5 GAL @ 30" O.C.	L	
	RHAPHIOLEPIS INDICA 'BALLERINA' BALLERINA INDIAN HAWTHORN	5 GAL @ 24" O.C.	M	
	ROSA X 'NOARE' FLOWER CARPET RED GROUND COVER ROSE	2 GAL @ 24" O.C.	M	
TURF	BOTANICAL / COMMON NAME	SIZE	WUCOLS	
	FESTUCA ARUNDINACEA DWARF TALL FESCUE 'MARATHON II'	SOD	H	



LANDSCAPE CONCEPT:
This landscape will consist of California-Friendly, low and medium water use plant material. All plants have been chosen from the low or medium water use category according to WUCOLS. Plants have been chosen to create a uniform theme across the site consisting of formal massings of attractive and textural sub-tropical, lush plantings backed by evergreen clipped and manicured hedges against the building and screening the parking lots.

Shade trees will be used to provide shade coverage for much of the site. Large accent trees are located at major project entries and where enhanced planting areas are located to better welcome visitors. Maintenance and longevity of plant material has been taken into consideration. Root panels and barriers will be utilized on all trees necessary, consistent with all standards and specifications. A 3" layer of bark mulch will be used in all landscape areas. All landscape areas will conform to the current City of Corona Landscape Guidelines.

IRRIGATION CONCEPT:
The irrigation design will incorporate the latest in smart irrigation technologies. All new planter areas will include drip line. All planters will use drip line with an irrigation efficiency of .8. A smart irrigation controller with a rain shut off device will also be incorporated. Bark mulch will be used to retain moisture and reduce evaporation and an irrigation schedule will be provided to program the controller. Two irrigation schedules shall be prepared, one for plant establishment and one for after plant establishment.

All new irrigation systems will comply with all current City of Corona Landscape Guidelines.

- CITY OF CORONA TREE DESIGN GUIDELINES**
- Shade trees must be provided for parking lot and open space areas, the palette shall include a balance of evergreen and deciduous trees.
 - A minimum of twenty four (24) inch box specimen trees shall be provided on the site based on the following formula: one 24-inch box specimen tree for every 10,000 sq. ft. of gross building area on the property.
 - A mix of tree sizes shall include at least: 25% 15-gallon trees, 70% 24-inch box trees, and 5% 36-inch box trees.
 - A minimum of one (24)-inch box tree shall be provided for every twenty linear feet of all planter areas of four feet to ten feet wide, or one tree for every three parking stalls, whichever tree count is greater.
 - A minimum of thirtysix inch box accent trees (single or multi-trunk specimens) or 12 foot (brown trunk) palms are required on all corner planters including all vehicular entries and major corner intersections of project area. They shall also be required at building entries and other public spaces, such as plazas, courtyards, or patio areas.
 - A minimum of one 24-inch box tree shall be planted for every five hundred square feet of landscaping area in all other areas.
 - Root panels and linear barriers are required for all trees planted within a parkway or within 8-feet of any walking or driveable surface in accordance with the landscape and irrigation standard plans and specifications.
 - Trees shall not be placed where they interfere with site drainage or overhead and underground utilities, all utilities shall be identified on the base plan.

WATER EFFICIENT LANDSCAPE WORKSHEET

PROJECT: Terrano Apartments I DATE: 2/1/2023

Reference Evapotranspiration (ET_{ref}) 56.37

Conversion Factor 0.82

Planting Description	Plant Name (P)	Irrigation Method	Efficiency (%)	ETAF (P/RF)	Landscaper Area (sq. ft.)	ETAF Area	Estimated Total Water Use (ETWA)
Regular Landscape Areas							
Low Water Use Plantings	0.2	Drip	0.81	0.25	0	0	0
Moderately Low Water Use Plantings	0.4	Drip	0.81	0.40	28,389	14,100	439,871
TOTALS					28,389	14,100	439,871
Special Landscape Areas							
Turf areas				1	2,650	2,650	82,816
Grass areas w/ recycled water				1	0	0	0
Water features				1	0	0	0
TOTALS					2,650	2,650	82,816
ETWA Totals						585,887	
Max In Use Allowed Water Allowance (MAWA)						641,774	

MAWA Calculations:

MAWA =	ETO *	Conv Factor *	(ETAF *	LA) +	(1-ETAF) *	(SLA)
56.37	0.82	0.55	31,210	0.45	2,650	
MAWA =	641,774					

ETAF Calculations:

Regular Landscape Areas		All Landscape Areas	
Total ETAF x	14,108	Total ETAF x	18,758
Area	28,389	Total Area	31,210
Average ETAF	0.49	Sitewide ETAF	0.54

AMENITIES NOTE:
The occupants of the existing Terrano I and the proposed Terrano II will have equal access to recreation areas within both project sites.

TERRANO II APARTMENTS



310 NORTH JOY STREET | CORONA, CA 92879
T: 951.737.1124 | F: 951.737.6551

CONCEPTUAL LANDSCAPE PLAN PREPARED FOR REXCO DEVELOPMENT

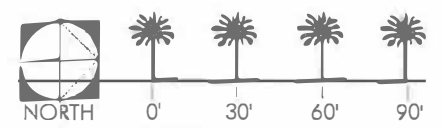


EXHIBIT 8



WALL AND FENCE LEGEND		
SYMBOL	DESCRIPTION	SHEET/DTL
---	W-01 6' TALL TUBULAR STEEL FENCE	SHEET 1/ DTL 1
---	W-03 TUBULAR STEEL VEHICULAR SLIDING GATE	SHEET 2/ DTL 1
---	W-04 TUBULAR STEEL VEHICULAR SWING GATE	SHEET 2/ DTL 1
---	W-05 TUBULAR STEEL EMERGENCY SWING GATE	SHEET 2/ DTL 3
---	W-07 6'-6" TALL CMU PILASTER WITH STUCCO FINISH	SHEET 2/ DTL 2
---	W-08 3' WIDE PEDESTRIAN GATE	SHEET 1/ DTL 2
---	W-09 6' STUCCO WALL TO MATCH EXISTING	SHEET 2/ DTL 1
---	W-10 7' TALL VENEER PILASTER TO MATCH EXISTING	SHEET 2/ DTL 1

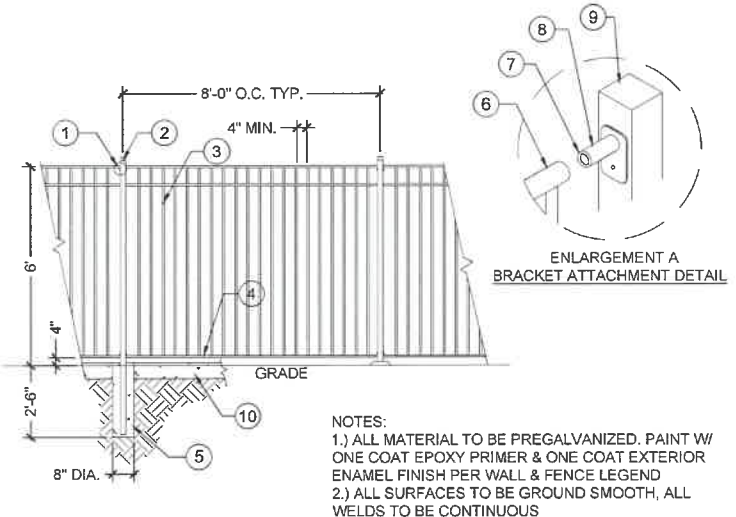


EXISTING TUBULAR STEEL VEHICULAR SLIDING GATE



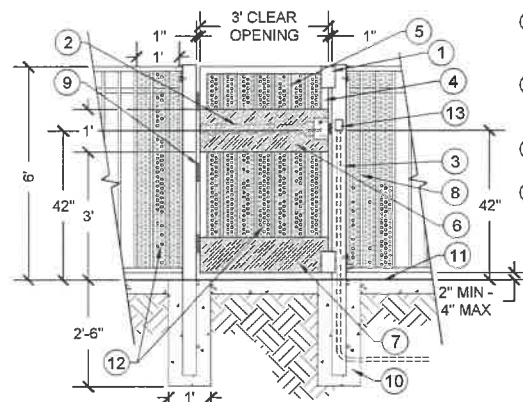
EXISTING TUBULAR STEEL FENCE

- ① SEE ENLARGEMENT A
- ② 2" SQ. TUBULAR STEEL POST W/ CAP @ 8'-0" O.C. MAX.
- ③ 3/4" ROUND PICKETS @ 3-1/2" O.C.
- ④ 1-3/8" ROUND TUBULAR STEEL RAILS TOP & BOTTOM
- ⑤ FOOTING PER STRUCTURAL
- ⑥ FENCE RAIL SLIPS OVER POST ASSEMBLY
- ⑦ CAULK JOINT W/ CLEAR SILICON
- ⑧ OUTSIDE DIAMETER SLIGHTLY LESS THAN INSIDE DIAMETER OF TOP OR BOTTOM RAIL
- ⑨ 2" X 2" FENCE POST (OR BLOCK PORTION OF WALL/PILASTER)
- ⑩ 6" MOW CURB AS SHOWN ON HARDSCAPE PLANS AROUND POOL AREA AND CFD BASIN



ALL DIMENSIONS, THICKNESS, AND SHAPE OF TUBULAR STEEL TO MATCH TERRANO APARTMENTS PH 1 - CONTRACTOR TO VISIT THE SITE PRIOR TO VERIFY PRIOR TO PROVIDING PRICING.

① 6' TUBULAR STEEL FENCE
3/8" = 1'-0"

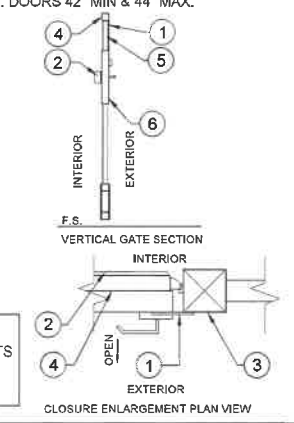


- ① GUARD PLATE - WELD 4"x6" STEEL GUARD PLATE ON OUTSIDE OF GATE FRAME (2). LOCATE AS SHOWN.
- ② ADA COMPLIANT EXTERIOR GRADE PANIC BAR ADA COMPLIANT LEVER HANDLE
- ③ 3" SQ. 12 GA. TUBULAR STEEL FENCE POST W/ FLAT CAP (TYP.)
- ④ 2" SQ. STEEL GATE FRAME.
- ⑤ 3/4" SQ. STEEL PICKETS AT 4 3/4" O.C.
- ⑥ MOUNTING PLATE PER HARDWARE KIT.
- ⑦ 10" X 48" STEEL KICK PLATE. BOTH SIDES OF GATE. TACK WELD TO GATE FRAME.
- ⑧ ADJACENT POOL FENCE - REFER TO DETAIL 2, THIS SHEET.
- ⑨ (3) HEAVY DUTY SELF CLOSING HINGES.
- ⑩ CONCRETE FOOTING.
- ⑪ ADJACENT HARDSCAPE PER PLAN.
- ⑫ PERFORATED STEEL MESH, BY MCNICHOLS, QUALITY ROUNDED PERFORATED, 16 GAUGE PLAIN STAGGERED 1/2" ROUND ON 11X16 STAGGER, TACK WELD TO GATE FRAME & FENCE.
- ⑬ SELF-CLOSING LATCH LOCK SYSTEM WITH FOB ENTRY, TO BE ACTIVATED W/ BLDG. DOORS 42" MIN & 44" MAX.

② 3' WIDE PEDESTRIAN GATE
1/2" = 1'-0"

NOTES:
A. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
B. GRIND ALL WELDS SMOOTH. WELD ALL CONNECTIONS CONTINUOUS.
C. PAINT ALL EXPOSED METAL SURFACES WITH 2 COATS EPOXY PRIMER AND 2 COATS POLYURETHANE GLOSS PAINT, COLOR PER CONSTRUCTION SCHEDULE.
D. ALL HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS WILL BE ADA COMPLIANT AND OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST.

ALL DIMENSIONS, THICKNESS, AND SHAPE OF TUBULAR STEEL TO MATCH TERRANO APARTMENTS PH 1 - CONTRACTOR TO VISIT THE SITE PRIOR TO VERIFY PRIOR TO PROVIDING PRICING.



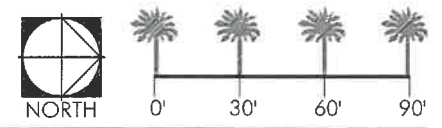
TERRANO II APARTMENTS



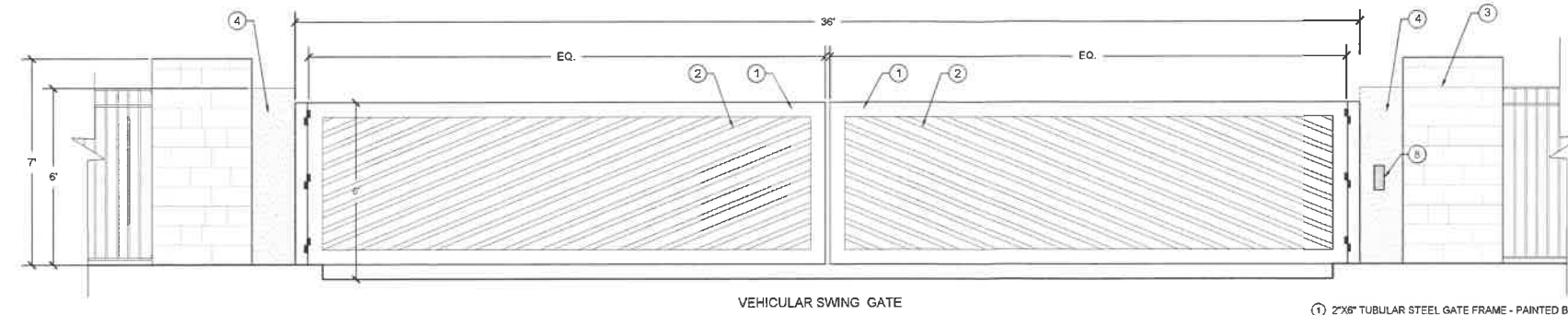
310 NORTH JOY STREET | CORONA, CA 92879
T: 951.737.1124 | F: 951.737.6551

WALL AND FENCE PLAN - SHEET 1

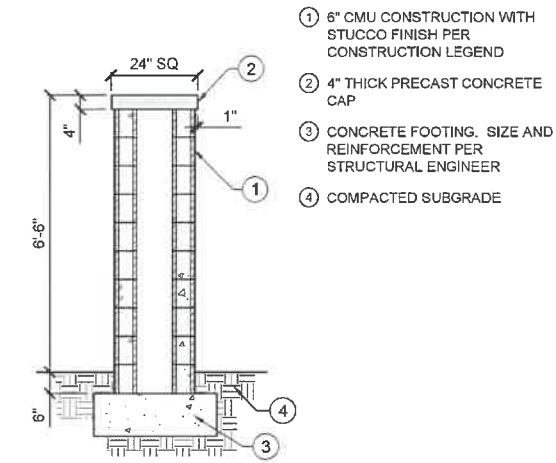
PREPARED FOR REXCO DEVELOPMENT



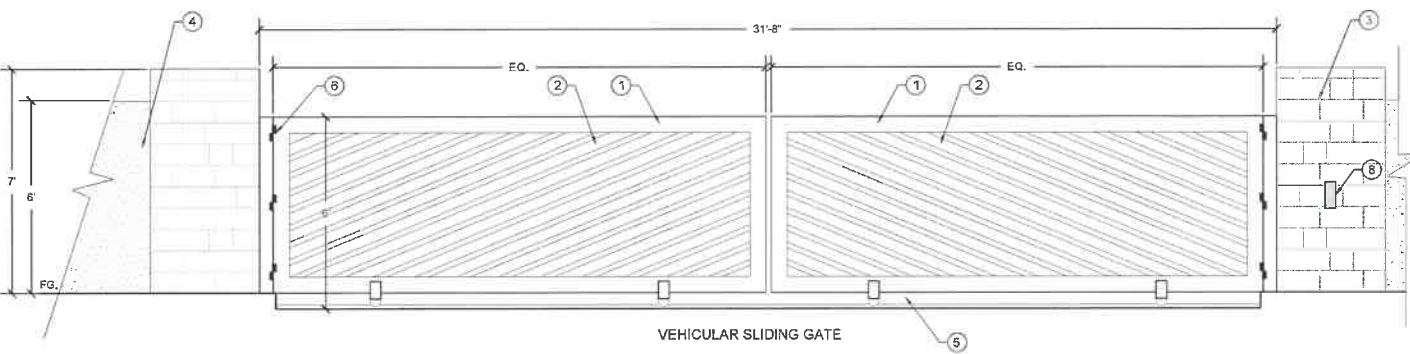
1285 CORONA POINTE COURT, SUITE 102, CORONA, CA 92879
May 9, 2023



VEHICULAR SWING GATE



2 6'-6" TALL CMU PILASTER WITH STUCCO FINISH
1/2" = 1'-0"

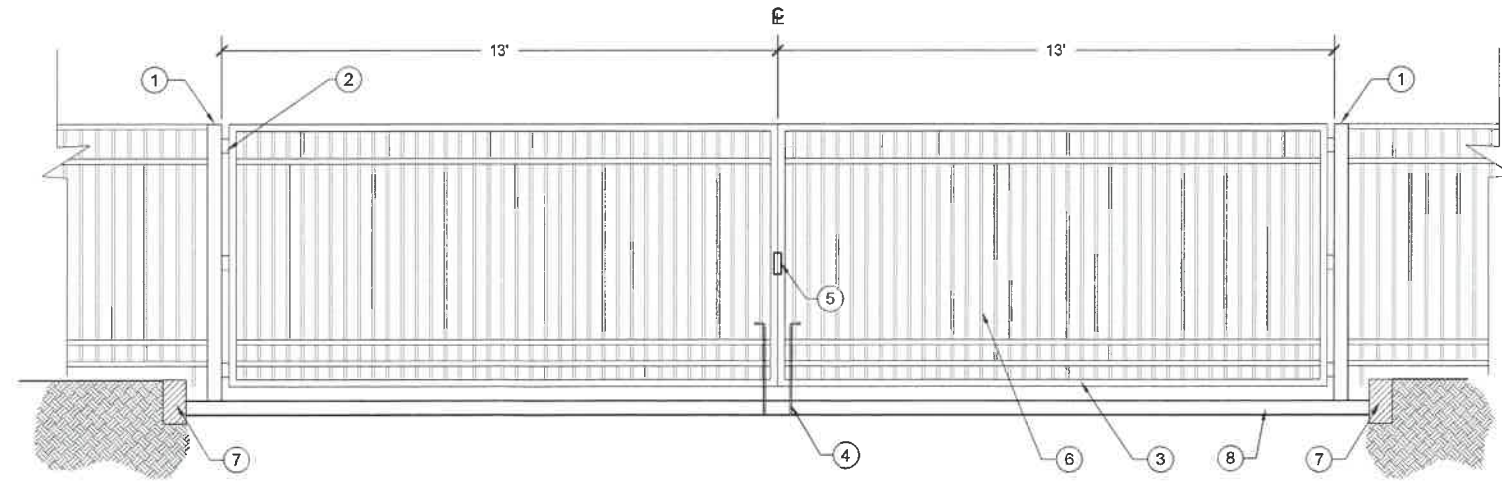


VEHICULAR SLIDING GATE

1 TUBULAR STEEL VEHICULAR SLIDING AND SWING GATE
1/2" = 1'-0"

- 1 2"x8" TUBULAR STEEL GATE FRAME - PAINTED BLACK.
- 2 2"x4" TUBULAR STEEL GATE MEMBER @ 22.5 DEGREE ANGLE - PAINTED BLACK.
- 3 DECORATIVE MONUMENT PILASTER WITH VENEER TO MATCH EXISTING @ TERRANO APARTMENTS PH 1.
- 4 6"x8"x16" CMU MASONRY WALL WITH STUCCO TO MATCH EXISTING DECORATIVE WALL @ TERRANO APARTMENTS PH 1 - COLOR TO BE BROWN.
- 5 GATE TRACKING SYSTEM AS REQUIRED.
- 6 HEAVY DUTY GATE HINGES.
- 7 6" TALL TUBULAR STEEL TO MATCH EXISTING TERRANO APARTMENTS PH 1.
- 8 KNOX LOCK PER CITY AND COUNTY FIRE STANDARDS

- NOTES:
- A. PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL.
 - B. GRIND ALL WELDS SMOOTH.
 - C. WELDS TO BE CONTINUOUS.
 - D. ALL HARDWARE SHALL BE STAINLESS STEEL.
 - E. PRIOR TO GATE FABRICATION, VERIFY STEEL MATERIAL SIZES AND GATE DESIGN FITS WITH ACCESS CONTROL EQUIPMENT, LATCHES, HINGES, ETC.
 - F. GATE FABRICATOR SHOULD MEASURE AS-BUILT FIELD CONDITIONS FOR CLEARANCES BETWEEN WALLS, ETC. BEFORE GATE FABRICATION.
 - G. CONTRACTOR TO SUBMIT GATE SYSTEM TO LANDSCAPE ARCHITECT FOR APPROVAL.
 - H. ALL HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS WILL BE ADA COMPLIANT AND OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST.
 - I. REFER TO ELECTRICAL SITE LIGHTING PLANS FOR ELECTRICAL INFORMATION.



3 TUBULAR STEEL EMERGENCY SWING GATE
1/2" = 1'-0"

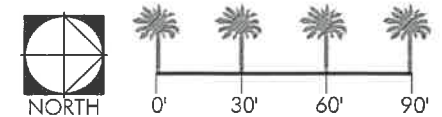
- 1 (2) 4" SQ TUBULAR STEEL POST, PROVIDE FOOTINGS AS REQUIRED
- 2 HEAVY DUTY GATE HINGES, NUMBER AS REQUIRED - ATTACH TO 4" SQ STEEL POSTS, GATE TO SWING INTO PROJECT PER CITY OF HIGHLAND FIRE DEPT STD.
- 3 2"x3" TUBULAR STEEL GATE FRAME
- 4 CRANE BOLT - ASSEMBLY AS REQUIRED
- 5 KNOX LOCK PER CITY AND COUNTY FIRE STANDARDS
- 6 5/8" SQ 16 GA WROUT IRON PICKETS @ 4" O.C.
- 7 CONCRETE CURB PER CIVIL
- 8 PAVING PER CIVIL ENGINEER

- NOTES
- 1. CONTRACTOR TO CONFIRM FIELD MEASUREMENTS TO ENSURE THAT GATES DO NOT STRIKE ADJACENT CURBS WHILE OPENING.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
 - WELD ALL CONNECTIONS CONTINUOUS.
 - GRIND ALL WELDS SMOOTH.
 - PAINT ALL EXPOSED METAL SURFACES WITH 2 COATS EPOXY PRIMER AND 2 COATS POLYURETHANE EXTERIOR PAINT.

TERRANO II APARTMENTS



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WALL AND FENCE PLAN - SHEET 2

PREPARED FOR REXCO DEVELOPMENT

1285 CORONA POINTE COURT, SUITE 102, CORONA, CA 92879
May 9, 2023



Project Conditions

City of Corona

Project Number: CUP2023-0002

Description: **Develop 50 apartment units on 2.96 acres in Dos Lagos.**

Applied: **2/13/2023**

Approved:

Site Address: **Fashion Dr & Temescal Canyon Rd ,**

Closed:

Expired:

Status: **RECEIVED**

Applicant: **REXCO, LLC**

Parent Project:

2518 N. SANTIAGO AVE ORANGE CA, 92867

Details:

LIST OF CONDITIONS

DEPARTMENT	CONTACT
BUILDING	<ol style="list-style-type: none"> 1. Construction activity shall not occur between the hours of 8:00 pm to 7:00 am, Monday thru Saturday and 6:00 pm to 10:00 am on Sundays and Federal Holidays. 2. Roofing material shall be Class A. 3. Pool area shall be enclosed with fencing in compliance with Corona Municipal Code (CMC) Sec 15.24. 4. Submit pool plans to Riverside County Health Department for approval. 5. Submit five (5) complete sets of plans including the following - * Plot Plan * Foundation Plan * Floor Plan * Ceiling and roof framing plan * Electrical Plans (electrical service shall be underground per Corona Municipal Code Section 15.06), including size of main switch, number and size of service entrance conductors, circuit schedule and demand load. * Plumbing and sewer plan, isometric, including underground diagram, water piping diagram, sewer or septic tank location, fixture units, gas piping and vents, heating and air conditioning diagram. * Landscape and Irrigation plans; Submit four (4) complete sets detached from building plans. Landscape Maintenance District plans shall be submitted directly to the Planning and Development Department, Development Services Division. Landscape plans shall be approved prior to the issuance of any Building Permits. 6. Submit two (2) sets of structural calculations, energy conservation calculations and soils reports. Architects/Engineers stamp and wet signature is required prior to submittal of plan check. 7. Separate permits are required for all fences, walls and paving. 8. Comply with the Corona Burglary Ordinance # 15.52. Copies are available at the Building Department counter. 9. All contractors must show proof of State and City licenses, and workmen's compensation insurance to the City prior to the issuance of permits. 10. Business' shall not open for operation prior to posting of Certificate of Occupancy issued by the Building Department. 11. In addition, refer to original DPR comments already received and acknowledged.
FIRE	Cindi Schmitz
	<ol style="list-style-type: none"> 1. Site plan shall show a minimum drive width of 28 feet. 2. Utility plan shall show fire hydrants spacing on Temescal Canyon Road at a minimum of 250 feet.
PLANNING	Eva Choi
	<ol style="list-style-type: none"> 1. The project shall comply with all applicable requirements of the Corona Municipal Code (CMC) and ordinances, and the Dos Lagos Specific Plan, including the payment of all required fees.

EXHIBIT 9



Project Conditions

City of Corona

PLANNING	Eva Choi
<ol style="list-style-type: none"> 2. To the fullest extent permitted by law, the applicant shall defend, indemnify and hold the City of Corona and its directors, officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, proceedings, costs, expenses, liabilities, losses, damages or injuries of any kind, in law or equity, in any manner arising out of, pertaining to, or incident to any attack against or attempt to challenge, set aside, void or annul any approval, decision or other action of the City of Corona, whether such approval, decision or other action was by its City Council, Planning and Housing Commission or other board, director, official, officer, employee, volunteer or agent. To the extent that Government Code Section 66474.9 applies, the City will promptly notify the applicant of any claim, action or proceeding made known to the City to which Government Code Section 66474.9 applies and the City will fully cooperate in the defense. The Applicant's obligations hereunder shall include, without limitation, the payment of any and all damages, consultant and expert fees, and attorney's fees and other related costs and expenses. The City shall have the right to retain such legal counsel as the City deems necessary and appropriate. 3. Nothing herein shall be construed to require City to defend any attack against or attempt to challenge, set aside, void or annul any such City approval, decision or other action. If at any time Applicant chooses not to defend (or continue to defend) any attack against or attempt to challenge, set aside, void or annul any such City approval, decision or other action, the City may choose, in its sole discretion, to defend or not defend any such action. In the event that the City decides not to defend or continue the defense, Applicant shall be obligated to reimburse City for any and all costs, fees, penalties or damages associated with dismissing the action or proceeding. If at any time both the Applicant and the City choose not to defend (or continue to defend) any action noted herein, all subject City approvals, decisions or other actions shall be null and void. The Applicant shall be required to enter into any reimbursement agreement deemed necessary by the City to effectuate the terms of this condition. 4. This permit hereby allowed is conditional upon the privileges being utilized by the securing of the first permit thereof, or compliance with all conditions on the granting of this conditional use permit within two (2) years after the effective date thereof, and if they are not utilized, or construction work is not begun within said time and carried on diligently to completion, this authorization shall become void, and any privilege or permit granted shall be deemed to have lapsed. 5. The applicant or his successor in interest shall comply with the Mitigation Monitoring and Reporting Program adopted for PP2018-0003 and CUP2018-0007. 6. All landscape plans shall be prepared by a licensed professional. Plans shall be prepared in accordance with the Landscape Architectural Plans checklist and the Corona Municipal Code (available at the Community Development Department). 7. Separate landscape plans shall be submitted to the Building Division at the time of building plan check and shall be approved prior to the issuance of a building permit. At the time of submittal, the developer shall pay the Building Division's plan check submittal fee for landscape plans. Additionally, the developer shall submit a separate landscape deposit in the amount of \$5,000 directly to the Planning Division for third-party plan check services related to the landscape plans. Any funds remaining from the deposit will be returned to the developer upon completion of the project. 8. The project shall provide trash enclosures in compliance with Section 17.79.050. 9. The developer shall submit separate plans for the perimeter fencing and gates for plan check and permits. 10. All landscaping and fencing shall be installed per the approved plans prior to the issuance of a Certificate of Occupancy. 11. The project is subject to the Riverside County's Multiple Species Habitat Conservation Plan fee for residential development (Density Between 8.0 and 14.0 Dwelling Units Per Acre). The developer shall pay the fee rate that is in effect at the time of payment. Payment shall be made prior to the issuance of a building. 	
PUBLIC WORKS	Noe Herrera
<ol style="list-style-type: none"> 1. The Public Works, Planning and Development, and Utilities Department comments for the subject application shall be completed at no cost to any government agency. All questions regarding the intent of the comments shall be referred to the Planning and Development Department, Development Services Division. Should a conflict arise between City of Corona standards and design criteria and any other standards and design criteria, City of Corona standards and design criteria shall prevail. 2. The developer shall comply with the State of California Subdivision Map Act and all applicable City ordinances and resolutions. 3. Prior to issuance of grading permit, the applicant shall demonstrate to the satisfaction of the Public Works Director that the proposed project will not unreasonably interfere with the use of any easement holder of the property. 	



Project Conditions

City of Corona

PUBLIC WORKS

Noe Herrera

4. All improvement and grading plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch Mylar and signed by a registered civil engineer or other registered/licensed professional as required.
5. The submitted site plan shall correctly show all existing easements, traveled ways, and drainage courses. Any omission or misrepresentation of these documents may require said site plan to be resubmitted for further consideration.
6. In the event that off-site right-of-way or easements are required for the City of Corona master plan facilities to comply with these conditions of approval, the developer is required to secure such right-of-way or easements at no cost to the City.
7. All existing and new utilities adjacent to and on-site shall be placed underground in accordance with City of Corona ordinances.
8. Prior to issuance of a Certificate of Occupancy, the developer shall cause the engineer of record to submit project base line work for all layers in AutoCAD DXF format on Compact Disc (CD) to the Public Works Department. If the required files are unavailable, the developer shall pay a scanning fee to cover the cost of scanning the as-built plans.
9. The developer shall monitor, supervise and control all construction and construction related activities to prevent them from causing a public nuisance including, but not limited to, insuring strict adherence to the following:
 - a) Removal of dirt, debris or other construction material deposited on any public street no later than the end of each working day.
 - b) Construction operations, including building related activities and deliveries, shall be restricted to Monday through Saturday from 7:00 a.m. to 8:00 p.m., excluding holidays, and from 10:00 a.m. to 6:00 p.m. on Sundays and holidays, in accordance with City Municipal Code 15.04.060, unless otherwise extended or shortened by the Public Works Director or Building Official.
 - c) The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site. Violation of any condition or restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedies as noted in the City Municipal Code. In addition, the Public Works Director or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.
10. Prior to building permit issuance, the developer shall address the maintenance of the shared facilities and common areas by recording a reciprocal easement agreement, establishing a property owners association and recording the associated covenants, conditions, and restrictions (CC&Rs), or by providing sufficient easements and/ or agreements to the satisfaction of the Planning and Development Director. The recorded or final documents shall address all private utilities, drainage, landscaping, retaining walls, driveways, and pavement shared between this development, the hotel parcel to the north, and the fuel service station parcel to the south.
11. Prior to issuance of a building permit, the developer shall finish the construction or post security guaranteeing the construction of all public improvements. Said improvements shall include, but are not limited to, the following:
 - a) All drainage facilities, including the relocation of the existing 24-inch and 36-inch storm drain lines through the site.
 - b) All required grading, including erosion control.
 - c) All required sewer, water, electrical, and reclaimed water facilities.
 - d) All under grounding of overhead utilities, except for cables greater than 32k volts.
12. Prior to issuance of a grading permit, all utilities in conflict with the proposed structures shall be relocated within dedicated public easements, including: the existing 36-inch public storm drain located onsite to the north of Fashion Drive and the existing 24-inch public storm drain located onsite to the south of Fashion Drive.
13. Prior to issuance of a building permit, all easements that are excess due to the relocation or abandonment of public facilities shall be vacated, unless otherwise approved by the Planning and Development Director. Easements include but are not limited to:
 - a) The 20-foot reclaimed water easement located on the north side of the project site
 - b) The 20-foot sewer easement as shown as easement 10 on Parcel Map 37070
 - c) The 20-foot storm drain easement located to the north of Fashion Drive and to the south of Fashion Drive.
14. All the grading design criteria shall be per City of Corona standards, Corona Municipal Code Title 15 Chapter 15.36 and City Council Ordinance Number 2568, unless otherwise approved by the Public Works Director.



Project Conditions

City of Corona

PUBLIC WORKS

Noe Herrera

15. Prior to approval of grading plans, the applicant shall submit two (2) copies of a soils and geologic report prepared by a Registered Engineer to the Planning and Development Department, Development Services Division. The report shall address the soil's stability and geological conditions of the site. If applicable, the report shall also address: deep seated and surficial stability of existing natural slopes; modified natural slopes which are subject to fuel zones; manufactured slopes and stability along proposed daylight lines; minimum required setbacks from structures; locations and length of proposed bench drains, sub-drains or french drains; and any other applicable data necessary to adequately analyze the proposed development.
16. Prior to approval of grading plans, erosion control plans and notes shall be submitted and approved by the Planning and Development Department, Development Services Division.
17. Prior to approval of grading plans, the applicant shall obtain a General Construction Activity Storm Water Permit from the State Water Resources Control Board in compliance with National Pollutant Discharge Elimination System (NPDES) requirements. Proof of filing a Notice of Intent (NOI) will be required by the City. The WDID # shall be displayed on the title sheet of the grading plans.
18. Prior to approval of grading plans, the applicant shall comply with the Federal Clean Water Act and shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be available at the project site for review.
19. Prior to issuance of building permits, the developer shall cause the civil engineer of record and soils engineer of record for the approved grading plans to submit pad certifications and compaction test reports for the subject lots where building permits are requested.
20. Prior to release of grading security, the developer shall cause the civil engineer of record for the approved grading plans to submit a set of as-built grading plans with respect to Water Quality Control facilities.
21. All City of Corona NPDES permit requirements for NPDES and Water Quality Management Plans (WQMP) shall be met per Corona Municipal Code Title 13 Chapter 13.27 and City Council Ordinance Numbers 2291 and 2828 unless otherwise approved by the Public Works Director.
22. Prior to the issuance of a grading permit, a Final WQMP, prepared in substantial conformance with the approved Preliminary WQMP, shall be submitted to the Planning and Development Department, Development Services Division for approval. Upon its final approval, the applicant shall submit one copy on a CD-ROM in PDF format.
23. Prior to issuance of the first Certificate of Occupancy, the applicant shall provide proof of notification to the future homeowners and/or occupants of all non-structural BMPs and educational and training requirements for said BMPs as directed in the approved WQMP.
24. Prior to issuance of Certificate of Occupancy, the applicant shall ensure all structural post construction BMPs identified in the approved project specific Final WQMP are constructed and operational.
25. All the drainage design criteria shall be per City of Corona standards and the Riverside County Flood Control and Water Conservation District standards unless otherwise approved by the Public Works Director.
26. Prior to approval of any improvement plans, the applicant shall submit an updated hydrology study. Said study shall include the existing, interim and the ultimate proposed hydrologic conditions including key elevations, drainage patterns and proposed locations and sizes of all existing and proposed drainage devices. The hydrology study shall present a full breakdown of all the runoff generated on- and off-site.
27. Prior to approval of improvement plans, the improvement plans submitted by the applicant shall address the following: The project drainage design shall be designed to accept and properly convey all on- and off-site drainage flowing on or through the site. The project drainage system design shall protect downstream properties from any damage caused by alteration of drainage patterns such as concentration or diversion of flow. All residential lots shall drain toward an approved water quality or drainage facility. Once onsite drainage has been treated it may continue into an approved public drainage facility.
28. Prior to approval of improvement plans, the improvement plans submitted by the applicant shall include the following:
 - a) All driveways shall conform to the applicable City of Corona standards and shall be shown on the street improvement plans.
 - b) Under grounding of existing and proposed utility lines.
 - c) All other public improvements shall conform to City of Corona standards.
29. Prior to release of public improvement security, the developer shall cause the civil engineer of record for the approved improvement plans to submit a set of as-built plans for review and approval by the Planning and Development Department, Development Services Division.



Project Conditions

City of Corona

PUBLIC WORKS	Noe Herrera
	<p>30. Prior to building permit issuance, the applicant shall provide all of the necessary documents and fees needed to annex this project into a City of Corona Community Facilities District (CFD) 2016-1 (Public Services). All assessable parcels therein shall be subject to annual CFD charges (special taxes or assessments). The developer shall be responsible for all costs incurred during annexation into the CFDs.</p> <p>31. Prior to the issuance of a Certificate of Occupancy, any damage to existing landscape easement areas due to project construction shall be repaired or replaced by the developer, or developer's successors in interest, at no cost to the City of Corona.</p> <p>32. Prior to issuance of a building permit and/or issuance of a Certificate of Occupancy, the applicant shall pay all development fees, including but not limited to Development Impact Fees (DIF) per City Municipal Code 16.23 and Transportation Uniform Mitigation Fees (TUMF) per City Municipal Code 16.21. Said fees shall be collected at the rate in effect at the time of fee collection as specified by the current City Council fee resolutions and ordinances.</p> <p>33. All the potable water, reclaimed water, and sewer design criteria shall be per City of Corona Utilities Department standards and Riverside County Department of Health Services Standards unless otherwise approved by the Public Works and Utilities Department Directors.</p> <p>34. Prior to issuance of any building permits, including model home permits, a domestic water and fire flow system shall be approved by the Public Works Department and constructed by the developer, to the satisfaction of the Public Works Director and Fire Chief.</p> <p>35. Prior to issuance of the first Certificate of Occupancy, all weather access road(s) shall be provided to all sewer manholes not located within public right-of-way.</p> <p>36. Prior to improvement plans approval, the applicant shall ensure that all water meters, fire hydrants or other water appurtenances shall not be located within a drive aisle or path of travel.</p> <p>37. Prior to issuance of any building permits, the developer shall pay all water and sewer fees, including but not limited to connection fees, wastewater treatment fees, sewer capacity fees and all other appropriate water and sewer fees.</p> <p>38. Prior to building permit issuance, the applicant shall construct or guarantee the construction of all required public improvements including but not limited to, the potable water line, sewer line, reclaimed water line, potable water services, sewer laterals, reclaimed water services, electrical services, double detector check assemblies and reduced pressure principle assemblies within the public right of way and-or easements.</p> <p>39. Prior to approval of the public improvement plans, the engineer shall provide the design to relocate the reclaimed lines that conflict with City Engineering Standards and Design Policy. All private utilities shall be located outside of the public street right-of-way unless otherwise approved by the Planning and Development Director and City Attorney.</p> <p>40. The applicant shall dedicate easements for all public water, reclaimed water, sewer and electric facilities needed to serve the project in accordance the Department of Water and Power standards. The minimum easement width shall be 20 feet for one utility and 30 feet for more than one public utility facility unless otherwise approved by the Utilities Department. All public water and sewer facilities shall be provided a minimum 20 foot wide paved access road unless otherwise approved by the Utilities Department Director. Structures and trees shall not be constructed or installed within a public utility easement. The applicant shall dedicate an easement for the existing reclaimed water hydrant and meters located west of Temescal Canyon Road and north of Fashion Drive.</p> <p>41. Prior to building permit issuance, the applicant shall construct or guarantee the construction of a private fire system with double detector check assemblies at all public fire services to the satisfaction of the Utilities Department and Fire Chief.</p> <p>42. Fire Hydrants shall be a maximum 250-300 feet apart or as directed by the Fire Department.</p> <p>43. Manhole rim elevations shall be lower than all pad elevations immediately downstream. Otherwise a back flow prevention valve will be required.</p> <p>44. Static pressures exceeding 80 psi require an individual pressure regulator.</p> <p>45. Reclaimed water shall be used for any construction activity, unless otherwise approved by the Utilities Director or their designee. Prior to obtaining a reclaimed construction meter from the City, a Reclaimed Water Application shall be submitted for the contractor to receive certification to handle reclaimed water.</p>



Project Conditions

City of Corona

PUBLIC WORKS	Noe Herrera
<p>46. The City of Corona Utilities Department shall provide electric service to the development, subject to availability as determined by the Utilities Department.</p> <p>47. The electric distribution system shall be applicant designed, procured and installed in accordance with City of Corona Utilities Department Electric Distribution Standards and Service Requirements. The developer shall prepare and submit electrical improvement plans to the Development Services Division for review and approval.</p> <p>48. The applicant shall provide a separate irrigation water service for all HOA landscaped lots or easements.</p>	

Terrano Plaza, LLC

2518 N. Santiago BLVD
Orange, CA 92867
951-898-1502

May 11 2023

Attn: Eva Choi

City of Corona
400 S. Vicentia Avenue
Corona, CA 92882

Re: CUP2023-0002 Applicant Letter to construct 50 apartment units

Terrano Plaza, LLC proposes a 50-unit addition to the existing Terrano Apartment project to be located on the North and South sides of Fashion Drive in the commercial designation of the Dos Lagos Specific plan. The Terrano phase 2 development would include (7) residential buildings with unit plans ranging from 600 SF to 1,265 SF. The proposed architectural and landscape design includes 2-story and 3-story buildings with color and design features similar to the first phase of the Terrano project. This project would include site amenities such as a new pickle-ball court and BBQ area. Residents of this phase will have equal access to the amenities at the completed Terrano phase 1 project. The location of Terrano Phase 2 puts it at the heart of the Dos Lagos residential and commercial community, providing its residents with additional amenities at the shops at Dos Lagos, including a gas station to the south, a hotel to the north, and a golf course to the east. This complex provides adequate site access and additional parking above the city's requirements, as well as perimeter fencing to give its residents a more private community experience with a complete range of public amenities nearby.



Patrick Tritz

Principal

EXHIBIT 10

CUP2023-0002

**ADDENDUM TO THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
FOR A DEVELOPMENT PROJECT
ENTITLED UNDER PRECISE PLAN PP2018-0003
WITHIN PLANNING AREA 1 OF THE DOS LAGOS SPECIFIC PLAN
CORONA, CALIFORNIA**



Prepared by:

City of Corona
Planning and Development Services Department
400 S. Vicentia Avenue
Corona, CA 92882
951-736-2437

Contact: Eva Choi, Associate Planner

July 10, 2023

EXHIBIT 11

CITY OF CORONA

**ADDENDUM TO INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR
PRECISE PLAN PP2018-0003, A DEVELOPMENT WITHIN
PLANNING AREA 1 OF THE DOS LAGOS SPECIFIC PLAN**

A. PROJECT INFORMATION

- 1. Project Title:** Conditional Use Permit (CUP2023-0002) for the development of 50 multiple-family residential units on 2.96 acres within Planning Area 1 of the Dos Lagos Specific Plan
- 2. Lead Agency Name and Address:** City of Corona,
400 S. Vicentia Avenue, Corona, CA 92882
- 3. Contact Person(s) and Phone Numbers:** Eva Choi, Associate Planner
City of Corona Planning & Development
Department

Numbers: 951-736-2437
- 4. Project Location:** The Project is located on the west side of Temescal Canyon Road and on the north and south sides of Fashion Drive, in the City of Corona.

BACKGROUND & PROJECT DESCRIPTION:

The proposed 50-unit Multiple-Family project, known as Terrano II, is located on the west of Temescal Canyon Road and north of Dos Lagos Drive within Planning Area 1 of the Dos Lagos Specific Plan, in the City of Corona.

Within the Dos Lagos Specific Plan, Planning Area 1 allows a mix of land uses that include commercial, entertainment, office and residential with internal pedestrian connectivity. In June 2016, a 276-unit multiple-family project in 38 apartment buildings, Terrano I, was approved through a Conditional Use Permit review (CUP16-002) and an Initial Study/Mitigated Negative Declaration (IS/MND) was adopted for the project. Terrano I is located along the western edge of Planning Area 1, adjacent to Interstate-15. The eastern edge of the Planning Area 1 fronting Temescal Canyon Road was identified for commercial development. At a public hearing held on August 20, 2018, the commercial component envisioned for the remainder of Planning Area 1 was approved through Precise Plan review (PP2018-0003) and a separate IS/MND was adopted for the commercial project. The entitled commercial development included a 101-room, 4-story hotel; 11,000 square feet of restaurant space including a drive-through; 15,800 square feet of retail floor area including a convenience store with a 10-pump service station and a 2,000-square-foot ancillary drive-through carwash. The Terrano I apartment complex, hotel, and gas station with convenience store and car wash are completed and in operation.

The proposed Terrano II Multiple Family project consists of replacing the entitled 2,500-square foot drive-through restaurant and 15,100 square feet of restaurant and retail space with 50 multi-family apartment dwelling units in Planning Area 1, located specifically to the north and south sides of Fashion Drive. Figure 1 shows the proposed Terrano II Multiple-Family project location. It is the last development piece to Planning Area 1 of the Dos Lagos Specific Plan, therefore, access for the proposed apartments will be provided via the existing internal circulation system and no new public access driveway are proposed. For the purposes of this Addendum document, the Terrano II Multiple Family project (CUP2023-0002) is the “Modified Project”.

Figure 1:



The purpose of the Addendum is to evaluate the changes that are proposed to the original commercial development entitled under PP2018-0003. In connection with the Addendum, many of the previously approved technical studies have been updated to ensure the Addendum will not result in any environmental impacts not already analyzed in the MND that was previously adopted

for PP2018-0003 or that was not known or could have been known in 2018. These updated studies include a noise assessment, a greenhouse gas assessment, an air quality report, a health risk assessment, and a traffic circulation update. The Addendum results in no additional or increased significant environmental impacts than those discussed in the 2018 MND or could have been discussed in 2018. However, the Addendum will reduce all of the impacts identified in the MND.

Thus, the Addendum is addressed in the Mitigated Negative Declaration, as all impacts of the Addendum are less than those analyzed in the adopted Mitigated Negative Declaration. The proposed modified Project does not result in new or increased significant impacts.

CEQA REQUIREMENTS FOR AN ADDENDUM: (CEQA Guidelines, § 15164(a).) (CEQA Guidelines, § 15162(a).)

As discussed above, the applicant has proposed to develop a 50-unit multi-family residential project to replace the previously entitled retail and restaurant uses within Planning Area 1 of the Dos Lagos Specific Plan. As the proposed residential project (Terrano II) modifies the previously adopted IS/MND, an addendum to the IS/MND is necessary to meet the requirements of the California Environmental Quality Act (CEQA).

The CEQA Guidelines (Sections 15162 and 15164) allow a lead agency to prepare an addendum to a previously adopted IS/MND if minor technical changes or additions to the environmental evaluation are necessary, but none of the following occurs:

Substantial changes are proposed in the project which will require major revisions to the Environmental Impact Report or negative declaration due to the involvement of new significant effects;

1. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous Environmental Impact Report or negative declaration due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
2. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous Environmental Impact Report or negative declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effect not discussed in the Environmental Impact Report;
 - b. Significant effects previously examined will be substantially more severe than shown;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

- d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous Environmental Impact Report or negative declaration would substantially reduce one or more significant effects on the environments, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum documents that included modifications to the approved Project do not trigger any of the conditions described above. Specifically, given the Project description and knowledge of supplemental analyses comparing the proposed project with the previously entitled commercial component of Planning Area 1 that the proposed project intends to replace, the city has concluded that the Modified Project would not result in any new significant impacts not previously disclosed in the circulated IS/MND, nor would it result in a substantial increase in the magnitude of any significant environmental impact previously identified. For these reasons, an addendum to the adopted IS/MND is sufficient to meet the requirements of CEQA.

The Addendum need not be circulated for public review (CEQA Guidelines Section 15164[c]); however, an Addendum must be considered by the decision-making body prior to a decision on the project (CEQA Guidelines Section 15164[d]). This Addendum to the previously adopted IS/MND demonstrates that the environmental analysis, impacts, and mitigation requirements identified in the previously approved Final IS/MND remains substantively unchanged despite minor project refinements described herein and supports the finding that the proposed project does not raise any new issues and does not exceed the level of impacts identified and analyzed in the previously approved Final IS/MND.

The approved mitigation measures provided in the adopted IS/MND Mitigation Monitoring and Reporting Program (MMRP) have been incorporated by reference, with modifications (additions, deletions, renumbering/renaming, or other minor revisions) made as necessary to apply to the modified Project as shown in Appendix A. The adjusted mitigation measures do not change the original impact conclusions from the IS/MND, nor are they considerably different from that analyzed in the IS/MND.

ENVIRONMENTAL CHECKLIST:

CEQA Guidelines 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in an original project's IS/MND. The focus of this analysis is on the identified changes associated with the proposed Modified Project (CUP2023-0002) and whether there would be any difference in identified impacts or required mitigation measures from those identified in the previously approved IS/MND.

The following analysis is used to: (1) compare the environmental impacts of the proposed Modified Project with impacts evaluated in the previously adopted IS/MND; (2) to identify whether the proposed Modified Project would result in new or more severe significant environmental impacts; and (3) to identify if there have been substantial changes with respect to the circumstances under which the Modified Project would be undertaken since adoption of the previously approved IS/MND that would result in new or more severe significant environmental effects.

This analysis confirms that the Modified Project is within the scope of the previously approved IS/MND, and the Modified Project would cause no new or more severe significant effects and no new mitigation measures are required.

The following discussion has been undertaken pursuant to the provisions of CEQA Guidelines Sections 15162 and 15164 to provide the factual basis for determining whether any changes associated with the Proposed Project Modifications, any changes in circumstance, or any new information since adoption of the previously approved IS/MND requires additional environmental review.

Note: This form represents an abbreviation of the complete Environmental Checklist found in the City of Corona CEQA Guidelines. Sources of reference information used to produce this checklist may be found in the City of Corona Community Development Department, 400 S. Vicentia Avenue, Corona, CA.

1. LAND USE AND PLANNING:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with any land use plan/policy or agency regulation (general plan, specific plan, zoning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with surrounding land uses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Physically divide established community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previously adopted IS/MND concluded that the mixed-use commercial project will have no impact related to land use and planning and no mitigation is warranted for this topic.

Proposed Modified Project:

The modified Project will be constructed within Planning Area 1 of the Dos Lagos Specific Plan, which is intended to provide flexibility to market driven development that fosters opportunities for people to live in the same area where neighborhood supportive commercial, entertainment, shopping, and potentially employment are within walking distance reducing the need for vehicle trips. The residential project does not create land use incompatibility as it is consistent with the C (Commercial) zoning and Mixed-Use I General Plan designations. The residential project site is an infill location. It will not divide an established community and is consistent with local land use plans and development standards prescribed in the Dos Lagos Specific Plan. The modified Project will have no impact to land use and planning within Planning Area 1.

2. POPULATION AND HOUSING:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Induce substantial growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing or people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The modified Project will not induce substantial population growth or displace housing or people. The proposed 50 dwelling units will provide rental housing opportunities in addition to the existing Terrano I project which included 276 rental units built in 2017. Overall, at completion of the proposed modified Project, there will be a total of 326 residential rental units available within Planning Area 1 which is below the maximum of 450 units previously evaluated with the master planning of the Dos Lagos area. Therefore, the modified Project will not induce substantial growth.

The modified Project provides additional residential rental units that do not exist presently; therefore, the project will not displace existing residents or remove existing housing units from the market. Therefore, no mitigation is warranted.

3. GEOLOGIC PROBLEMS:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fault /seismic failures (Alquist-Priolo zone) /Landslide/Liquefaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Grading of more than 100 cubic yards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Grading in areas over 10% slope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantial erosion or loss of topsoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Unstable soil conditions from grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Expansive soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND disclosed that the project site is not located within an Alquist-Priolo Seismic Special Study Zone, and no known active or potentially active fault crosses the project site. It was also found that the site is not subject to liquefaction because of the soil conditions and combined with the relatively dense nature of the soils. Furthermore, the project site was previously rough graded for commercial development associated with the original project (PP2018-0003). The previous evaluation for the commercial project recognizes the site will need to be further graded in accordance with city's grading regulation and finished in a manner that achieve positive drainage. Any potential impacts are mitigated by compliance with city's grading ordinance through the grading permit and inspection process. The proposed modified Project is subject to implementation of an erosion control plan, grading permit

requirements and inspection; therefore, it does not cause new or increased significant impacts on geology and soils and no further mitigation is warranted with respect to geologic problems.

4. HYDROLOGY AND WATER QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than significant Impact	No Impact
a. Violate water quality standards/waste discharge requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deplete groundwater supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Alter existing drainage pattern	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Increase flooding hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Degrade surface or ground water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Within 100-year flood hazard area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Increase exposure to flooding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Exceed capacity of storm water drainage system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND identified less than significant impact to the water quality standards and waste discharge requirements because the applicant is required to submit a final Water Quality Management Plan (WQMP) for review and approval by the Development Service Division. Additionally, the commercial project was required to implement on-site Best Management Practices (BMPs) identified in the WQMP, install underground stormwater detention and infiltration systems in order to minimize pollutant run-off into the city’s storm water drainage system. The full development entitled for Planning Area 1, both the residential units (Terrano I) and the commercial development were evaluated in a hydrology study and found that the project design at that time would result in less than significant impact provided that the storm water collection and conveyance systems identified in the hydrology study are implemented.

The proposed modified Project is subject to provision of an updated WQMP and hydrology study for review and approval by the Development Service Division. The previously evaluated WQMP accounted for the entirety of construction within Planning Area 1 and was found to be adequate in reducing water quality impacts to less than significant. The proposed modified Project is subject to on-site Best Management Practices and WQMP requirements based on the previous IS/MND which is has a similar or negligible increase of water flow, therefore with the implementation of previously required BMPs, stormwater collection and conveyance systems, the proposed modified Project does not cause new or increased significant impacts on water quality and drainage pattern, and no further mitigation is warranted.

5. AIR QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with air quality plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate air quality standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Net increase of any criteria pollutant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose sensitive receptors to pollutants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND provided evaluations of air quality based on based on the worst-case scenario related to trip generation of the mixed-use commercial project. As the proposed modified Project reduces daily trip generation by approximately 50%, as stated in the updated traffic circulation assessment (Linscott, Law & Greenspan, May 10, 2023), the project, at completion would generate far less operational air quality emissions. Measured in pounds per day, the criteria pollutants that are analyzed for operations of the Project include Respirable Particulate Matter (PM10/PM2s), Nitrogen Oxide (NOx), Sulfur Oxide (SOx), Carbon Monoxide (CO), and Reactive Organic Gases (ROG) When compared to the significance thresholds established by the SCAQMO, no pollutant was identified as expected to exceed such thresholds for the daily operational emissions (LDN Consulting, Inc., January 31, 2023, Table 5, Page 6). Likewise, when compared to the significance thresholds established for daily construction air quality emissions, no pollutant will exceed such thresholds (Ibid. Table 4, Page 5). Therefore, no impacts related to air quality emission are anticipated from the proposed modified Project.

An updated air quality health risk screening letter (LDN Consulting, Inc., January 31, 2023) identify the proposed modified Project's health risk impacts resulting from exposure to toxic air contaminants (TACs). The project site is located north of Dos Lagos Drive and south of Cabot Drive with the I-15 Freeway located to the west, which is consider a source of pollutant. Generally, risks are stated to be greater for sensitive receptors within 500 feet of a freeway or busy traffic corridor calculated based on a 70-year lifetime exposure and meteorological data. The north portion of the project site is 700 feet from the eastern edge of the I-15 and the south portion is 600 feet from the eastern edge of the I-15. Given the close proximately to the I-15, the applicant stated that all residential units will have mechanical ventilation filtration systems as required by the latest building codes such as California's Title 24 which required a Minimum Efficiency Reporting Value (MERV) rating of 13. The MERV 13 filtration systems was a mitigation measure for the existing residential component (Terrano I) within Planning Area 1, entitled under CUP16-002. Along with written disclosure in the leasing agreement to inform residential of its close proximity to a gasoline station. Given the residential nature of the proposed modified Project and its location within Planning Area 1, the same mitigation measures remain applicable in order to reduce air quality impacts.

Mitigation Measures -

- (1) *Each unit shall be installed with mechanical air quality filtration system with fresh air intake having a minimum efficiency reporting value (MERV) of 13. Such system must be clearly displayed on all plans for plan check and construction.*
- (2) *The developer shall provide written disclosure in the leasing documents for each unit that is located within 300 feet of the existing gasoline station located to the south of the project site regarding the potential health risks to the residents associated with potential exposure to benzene that may be emitted from gasoline refueling operations.*

6. TRANSPORTATION/TRAFFIC:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with an applicable congestion management program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Change in air traffic patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Traffic hazards from design features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Emergency access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with alternative transportation policies (adopted policies, plans or programs for public transit, bicycle or pedestrian facilities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND provided mitigation measures that remain applicable to the proposed modified Project as it pertains to the overall access of Planning Area 1. Additionally, updated traffic circulation assessment (Linscott, Law & Greenspan, May 10, 2023) provided a net trip generation comparison between the entitled, unbuilt commercial uses within Planning Area 1 and the proposed 50-unit residential use. The result is a reduction in 2-way daily net trip generation by 68% for the proposed modified Project. The proposed Project will utilize the existing internal circulation system and will not require new public access driveway. With implementation of the previously identified mitigation measures, the proposed modified Project will have no impacts to traffic, and circulation and no additional mitigation measures are warranted.

The table below compares the traffic generation rates and forecast between the proposed 50-unit residential project and the previously entitled commercial component that the proposed project intends to replace.

PROJECT TRAFFIC GENERATION RATES AND FORECAST¹
TERRANO II APARTMENTS AT DOS LAGOS, CORONA

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<u>Trip Generation Rates:</u>							
▪ 220: Multifamily Housing (Low-Rise) Not Close to Rail Transit (TE/DU)	6.74	24%	76%	0.40	63%	37%	0.51
<u>Proposed Project Trip Generation Forecast:</u>							
▪ Terrano II Apartments at Dos Lagos (50 DU)	337	5	15	20	16	10	26
Total Proposed Project Trip Generation	337	5	15	20	16	10	26
<u>Entitled Trip Generation Forecast:</u>							
▪ Terrano Retail & Restaurants (16,400 SF) ²	1,075	31	32	63	39	24	63
Total Entitled Trip Generation	1,075	31	32	63	39	24	63
Net Project Trip Generation Forecast (Proposed Project vs. Entitled)	(738)	(26)	(17)	(43)	(23)	(14)	(37)

Notes:

- TE/DU = trip end per dwelling unit

7. BIOLOGICAL RESOURCES:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Endangered or threatened species/habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Riparian habitat or sensitive natural community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Adversely affects federally protected wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interferes with wildlife corridors or migratory species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflicts with local biological resource policies or ordinances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflicts with any habitat conservation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND did not identify any biological impacts. The required development fees due to Riverside County's Multiple Species Habitat Conservation Plan remains applicable to the residential project. Given that there are no water courses or vegetation existing on the site, the proposed modified Project will have no impact on biological resources.

8. MINERAL RESOURCES:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Loss of mineral resource or recovery site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

As disclosed in the previous IS/MND, the project site does not contain mineral resources. Therefore, the project does not impact mineral resources, and no mitigation is warranted.

9. HAZARDS AND HAZARDOUS MATERIALS:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Transport, use or disposal of hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Risk of accidental release of hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Hazardous materials/emissions within ¼ mile of existing or proposed school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Located on hazardous materials site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with Airport land use plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair emergency response plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Increase risk of wildland fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

As discussed in the previous IS/MND, the project site was historically a silica mine from the 1980's to 1990's and a Phase I Environmental Site Assessment (ESA) found no evidence of hazardous materials from the prior use at the site. Therefore, hazards or hazardous materials are not considered an impact with the proposed 50-unit residential project and no mitigation is warranted.

10. NOISE:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed noise level standards	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure to excessive noise levels/vibrations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Permanent increase in ambient noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Temporary increase in ambient noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with Airport Land Use Plan noise contours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND stated that temporary increase in ambient noise level is to be expected during the construction phase. This concern is addressed by strict adherence to city ordinance that regulate construction activities and noise. The prior analysis did not warrant special mitigation beyond city ordinance to prevent noise impacts.

A noise assessment for the proposed modified Project (LDN Consulting, Inc., January 31, 2023) found that city ordinance in regulating construction hours remain effective in preventing potential noise impact. The assessment also recommended that all equipment should be properly fitted with mufflers and all staging and maintenance should be conducted as far away from the existing residence as possible. Construction vibrations impacting existing residential uses to the west (Terrano I) are found to be less than the Federal Transit Administration criteria for nuisance for nearby residential uses, therefore the assessment found the potential vibration impact to be less than significant. The assessment also recommended that the architectural plans to be designed to reduce interior noise to 45 dBA CNEL (Community Noise Exposure Level). These specific measures will be confirmed with the construction documents and during the plan check review process, prior to issuance of building permit. Therefore, the proposed modified Project will not result in any new or increased significant noise impacts.

11. PUBLIC SERVICES:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Police protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks & recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND for the commercial development did not consider the additional student enrollment in the Corona Norco Unified School District. As such the proposed modified Project has the potential to increase school enrollment not previously evaluated. The added

residential units is subject to payment of statutory school fees at the time of building permit issuance.

As the proposed modified Project and the implemented Terrano I project yield a total of 326 dwelling units, Planning Area 1 remains below the 450 residential units ascribed in the Specific Plan. The addition of 50 dwelling units does not change the demand for services that warrant the construction of additional fire facilities, police facilities, schools, or other similar facilities. To offset the cost of public services, the developer is required to applicable development impact fees at the time of issuance of building permits for the project. Therefore, no further mitigation is warranted.

12. UTILITIES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Involve construction/expansion of water or wastewater treatment facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Involve construction/expansion of storm drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Sufficient water supplies/compliance with Urban Water Management Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Adequate wastewater treatment capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Adequate landfill capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with solid waste regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND discussion on utilities concluded that the commercial project would have no impact on utilities demands. The proposed modified Project increases the residential units within Planning Area 1 but Planning Area 1 will remain below the 450 units prescribed by the Specific Plan which is within the growth parameters of the city’s 2020-2024 General Plan. The developer is responsible for coordinating with utilities providers to provide service to the new residential units. Therefore, the proposed modified Project poses no new impact or increased impacts on public services or utilities and no mitigation measures are warranted.

13 AESTHETICS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Scenic vista or highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Degrade visual character of site & surroundings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Light or glare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Scenic resources (forest land, historic buildings within state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The project site is not considered a scenic vista per the City’s Environmental Resources Element of the General Plan, therefore development of the project site will not impact scenic vista.

The previous IS/MND evaluated a commercial design with retail and restaurant uses at the project site. The proposed modified Project is residential and adhere to design guidelines established for High Density Residential development, along with landscaping requirements for the site. The proposed site layout and exterior building design, including finishes treatments are similar to the existing residential project to the west (Terrano I) and the hotel to the immediate north. The proposed modified Project provides a sense of cohesiveness with existing development within Planning Area 1 and enhances the aesthetic along Temescal Canyon Road. The proposed modified Project will not result in impacts related to aesthetics and light pollution. Therefore, no mitigation is warranted.

14. CULTURAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Historical resource	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Archaeological resource	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Paleontological resource or unique geologic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Disturb human remains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND reference a prior study related to Cultural Resources for the entire Dos Lagos Specific Plan area and concluded that the subject site has low potential for prehistoric or historic archaeological resources. The site was historically excavated and filled up to 14 feet and re-compacted in anticipation of future development. However, the study still prescribes that if unanticipated cultural materials are unearthed during construction, work should be halted in the area until a qualified archaeologist can assess the significance of the find.

In accordance with standard mitigation required for the protection of cultural resources and in keeping with applicable laws, if human remains are encountered, State 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 PRC Section 5097.98. Therefore, to ensure the preservation of any potential cultural or Paleontological resources, mitigation is warranted to ensure the project will have a less than significant effect on the environment with respect to cultural resources. The existing mitigation measures in the previously adopted MND for the original project remain applicable to the proposed modified Project.

15. AGRICULTURE RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Williamson Act contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conversion of farmland to nonagricultural use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND disclosed that the project site was previously used for mining purposes, it is not under any agricultural preserve contract pursuant to the Williamson Act. Therefore, the proposed modified Project to construct residential uses in place of previously analyzed commercial use would not alter the conclusion that any development on the subject property would result in no impact to agricultural operations and no mitigation is warranted.

16. GREENHOUSE GAS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Generate greenhouse gases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with a plan, policy or regulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

An updated greenhouse gas (GHG) letter (LDN Consulting, Inc., January 31, 2023) compared the previously entitled retail and restaurant uses and the proposed 50-unit resident use found that the project yields a reduction in GHG by 53.7%. Greenhouse gas emission generated from the previous commercial land use and the proposed residential use are presented in Ibid. Tables 1 and 2, page 3. The updated letter further stated the proposed residential project would not be required to implement GHG design features beyond state and local requirements. Due to the reduction GHG emissions, the proposed project would have no impact.

17. TRIBAL CULTURAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 subsection © of Public Resources Code Section 5024.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Please see Item 14 above for discussions and mitigation measures related to preservation of tribal resources.

18. MANDATORY FINDING OF SIGNIFICANCE:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fish/ wildlife population or habitat or important historical sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cumulatively considerable impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantial adverse effects on humans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Short-term vs. long-term goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The previous IS/MND did not identify negative impacts to fish or wildlife as the site contains no bodies of water or known wildlife habitat. The site is the remaining vacant areas (comprising of 2.96 acres) within Planning Area 1 and was previously rough graded with existing commercial development on the adjacent property to the north and major street frontage on three frontages including Interstate 15 along the west site boundary. There is no evidence before the city that the project will have an adverse effect on fish or wildlife resources or cumulatively considerable impacts.

The proposed modified Project will not cause any additional mandatory findings of significance. The significance conclusions under the proposed modified Project are the same as the previous IS/MND because the additional 50 dwelling units will not cause any new or increased significant impacts and in fact, will result in decreased impacts in many categories such as traffic, noise, and greenhouse gas emissions.

19. PREVIOUS ENVIRONMENTAL ANALYSIS:

Earlier analysis may be used when one or more of the environmental effects have been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063).

One or more portions of this Initial Study may have relied upon previous analysis in the IS/MND prepared for PP2018-0003 and CUP2018-0007 adopted on August 20, 2018, containing pertinent evaluation related to the subject project site.

DOCUMENTS INCORPORATED BY REFERENCE:

- (1) City of Corona General Plan, March 17, 2004
- (2) Dos Lagos Specific Plan, June 21, 2000
- (3) IS/MND prepared for PP2018-0003 and CUP2018-0007, adopted on August 20, 2018
- (4) Traffic Impact Analysis, prepared by Linscott, Law & Greenspan, May 21, 2018, Revised May 10, 2023
- (5) Air Quality Screening Letter, prepared LDN Consulting, Inc., January 31, 2023
- (6) Green House Gas Screening Letter, prepared by LDN Consulting, Inc., January 31, 2023
- (7) Noise Assessment, prepared by LDN Consulting, Inc., January 31, 2023
- (8) Health Risk Letter, prepared by LDN Consulting, Inc., January 31, 2023

January 17, 2023

Mr. Patrick Tritz
1285 Corona Pointe Court
Suite 102
Corona, CA. 92879

LLG Reference: 2.22.4630.1

Subject: **Traffic Circulation Assessment for the Proposed
Terrano II Apartments at Dos Lagos Project**
Corona, California

Engineers & Planners

Traffic
Transportation
Parking

**Linscott, Law &
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Dear Mr. Tritz:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit the following Traffic Impact Assessment for the proposed Terrano II Apartments at Dos Lagos Project to replace the current entitlement on this portion of Planning Area 1 of Dos Lagos in the City of Corona, California. This analysis evaluates the potential traffic circulation impacts associated with the proposed multifamily residential replacement Project consistent with City of Corona requirements based on the *City of Corona Traffic Impact Study Guidelines, (June 2006)*. It should be noted that this trip generation comparison analysis is based on the approved *Traffic Impact Analysis (TIA) report for Planning Area 1 Terrano at Dos Lagos, prepared by LLG (May 21, 2018)* and attached for reference.

PROJECT LOCATION AND DESCRIPTION

Planning Area 1 of the Dos Lagos Specific Plan was entitled in 2018 and included a 276-unit apartment complex, a 107 room hotel, 6,100 square-foot (SF) of commercial uses, 10,300 SF of restaurant uses (4,000 SF quality restaurant use and 6,300 SF high-turnover sit-down restaurant use), and a 20-fueling position gas station with convenience store and car wash, of which the apartment complex, hotel, and gas station are completed and opened. **Figure 1** presents the proposed site plan for the Project, prepared by Summa Architecture, which shows the proposed apartment development and existing Planning Area 1 development. As shown in **Figure 1**, the proposed Project consists of replacing the entitled retail and restaurant uses with 50 multifamily (low-rise) apartment dwelling units within eight (8) buildings. Access for the proposed apartments will be provided via the existing internal circulation system and no new public access driveway are proposed.

Pasadena
Irvine
San Diego
Woodland Hills

Philip M. Linscott, PE (1924-2000)
Jack M. Greenspan, PE (Ret.)
William A. Law, PE (Ret.)
Paul W. Wilkinson, PE
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David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE

PROJECT TRAFFIC CHARACTERISTICS

Trip Generation Forecast Comparison

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the Eleventh Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2021].

Table 1, attached, summarizes the trip generation rates used in forecasting the vehicular trips generated for the proposed Project and entitled land use and also presents the proposed Project's net forecast peak hour and daily traffic volumes. As shown in the upper portion of *Table 1*, the trip generation potential of the proposed Project was estimated using the using ITE Land Use 220: *Multifamily Housing (Low-Rise) Not Close to Rail Transit* trip rates whereas the entitled retail and restaurant uses trip generation is based on the trip generation forecast (*Tables 5-1 and 5-2*) contained in the approved LLG TIA (May 21, 2018) on Pages 13 and 14.. Review of the middle of *Table 1* indicates that the proposed apartment Project is forecast to generate 337 daily trips, with 20 trips (5 inbound, 15 outbound) produced in the AM peak hour and 26 trips (16 inbound, 10 outbound) produced in the PM peak hour on a "typical" weekday.

Next, review of the following section of *Table 1* indicates that the entitled 6,100 square-foot (SF) of commercial uses and 10,300 SF of restaurant uses (4,000 SF quality restaurant use and 6,300 SF high-turnover sit-down restaurant use) is forecast to generate 1,075 daily trips, with 63 trips (31 inbound, 32 outbound) produced in the AM peak hour and 63 trips (39 inbound, 24 outbound) produced in the PM peak hour on a "typical" weekday.

As shown on the last row of *Table 1*, the net trip generation potential of the proposed Project compared to the trip generation of the entitled retail and restaurant uses is 738 net fewer daily trips, with 43 net fewer trips (-26 inbound, -17 outbound) produced in the AM peak hour and 37 net fewer trips (-23 inbound, -14 outbound) produced in the PM peak hour on a "typical" weekday.

As a result, based on the negative net trip generation forecast for the proposed Project compared to the entitled uses for Planning Area 1 of the Dos Lagos development, the proposed Project will not significantly impact the surrounding transportation system and does not require the preparation of a traffic impact study including level of service.

CONCLUSION

Based on the results of the aforementioned net project trip generation forecast for the proposed Terrano II Apartments at Dos Lagos Project, which is 738 net fewer daily trips, with 43 net fewer trips (-26 inbound, -17 outbound) produced in the AM peak hour and 37 net fewer trips (-23 inbound, -14 outbound) produced in the PM peak hour on a “typical” weekday, we conclude that the proposed Project’s traffic circulation impact is considered “insignificant” based on the City of Corona TIS Guidelines. Therefore, the Project would not require any specific traffic analysis including level of service.

We appreciate the opportunity to provide this Traffic Impact Assessment. Should you need further assistance, or have any questions regarding this analysis, please call us at (949) 825-6175.

Very truly yours,

Linscott, Law & Greenspan, Engineers



Keil D. Maberry, P.E.
Principal

Attachments



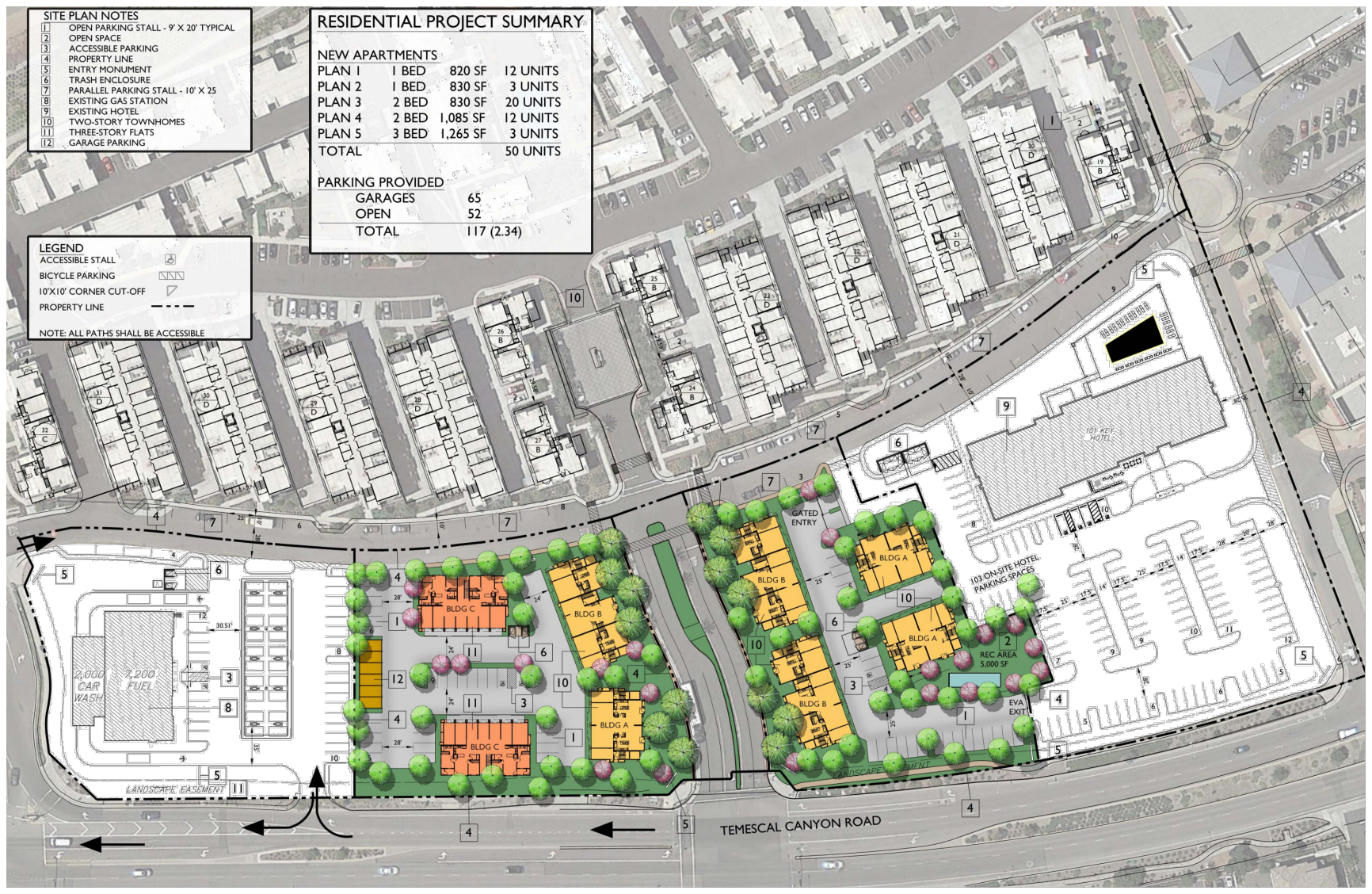
- SITE PLAN NOTES**
- 1 OPEN PARKING STALL - 9' X 20' TYPICAL
 - 2 OPEN SPACE
 - 3 ACCESSIBLE PARKING
 - 4 PROPERTY LINE
 - 5 ENTRY MONUMENT
 - 6 TRASH ENCLOSURE
 - 7 PARALLEL PARKING STALL - 10' X 25'
 - 8 EXISTING GAS STATION
 - 9 EXISTING HOTEL
 - 10 TWO-STORY TOWNHOMES
 - 11 THREE-STORY FLATS
 - 12 GARAGE PARKING

RESIDENTIAL PROJECT SUMMARY

NEW APARTMENTS				
PLAN 1	1 BED	820 SF	12 UNITS	
PLAN 2	1 BED	830 SF	3 UNITS	
PLAN 3	2 BED	830 SF	20 UNITS	
PLAN 4	2 BED	1,085 SF	12 UNITS	
PLAN 5	3 BED	1,265 SF	3 UNITS	
TOTAL			50 UNITS	

PARKING PROVIDED	
GARAGES	65
OPEN	52
TOTAL	117 (2.34)

- LEGEND**
- ACCESSIBLE STALL
 - BICYCLE PARKING
 - 10'X10' CORNER CUT-OFF
 - PROPERTY LINE
- NOTE: ALL PATHS SHALL BE ACCESSIBLE



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LINSCOTT
LAW &
GREENSPAN
engineers

NO SCALE

SOURCE: SUMMA ARCHITECTURE

FIGURE 1

PROPOSED SITE PLAN
TERRANO II APARTMENTS AT DOS LAGOS, CORONA

TABLE 1
PROJECT TRAFFIC GENERATION RATES AND FORECAST¹
TERRANO II APARTMENTS AT DOS LAGOS, CORONA

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<u>Trip Generation Rates:</u>							
▪ 220: Multifamily Housing (Low-Rise) Not Close to Rail Transit (TE/DU)	6.74	24%	76%	0.40	63%	37%	0.51
<u>Proposed Project Trip Generation Forecast:</u>							
▪ Terrano II Apartments at Dos Lagos (50 DU)	337	5	15	20	16	10	26
<i>Total Proposed Project Trip Generation</i>	337	5	15	20	16	10	26
<u>Entitled Trip Generation Forecast:</u>							
▪ Terrano Retail & Restaurants (16,400 SF) ²	1,075	31	32	63	39	24	63
<i>Total Entitled Trip Generation</i>	1,075	31	32	63	39	24	63
Net Project Trip Generation Forecast (Proposed Project vs. Entitled)	(738)	(26)	(17)	(43)	(23)	(14)	(37)

Notes:

- TE/DU = trip end per dwelling unit

¹ Source: *Trip Generation*, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021).

² Source: *Table 5-2*, Planning Area 1 - Terrano at Dos Lagos Traffic Impact Analysis (LLG) dated May 21, 2018, which consists of 6,100 SF retail, 4,000 SF quality restaurant, and 6,300 SF high-turnover restaurant uses. The residential, hotel and gas station are currently constructed.

TRAFFIC IMPACT ANALYSIS REPORT
PLANNING AREA 1
TERRANO AT DOS LAGOS
Corona, California
May 21, 2018
(Update of Report dated December 29, 2017)

Prepared for:
Rexco Development
1285 Corona Pointe Court
Suite 102
Corona, CA 92879

LLG Ref. 2-12-3291-1

Prepared by:
Angela Besa
Transportation Engineer I

Under the Supervision of:
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APPENDIX

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EXECUTIVE SUMMARY

- The proposed Project consists of developing a 276-unit apartment complex, a 107 room hotel, 6,100 square-feet (SF) of commercial uses, 10,300 SF of restaurant uses, and a 20-fueling position gas station with convenience store and car wash. The Project site is located on the northwest quadrant of Temescal Canyon Road and Dos Lagos Drive, in the southeast area of the City of Corona, California. Project access will be provided via three (3) driveways along Temescal Canyon Road and one (1) driveway along Dos Lagos Drive. The Project is anticipated to be completed and fully occupied by Year 2020.
- The proposed Project is expected to generate 4,775 daily trips (one half arriving, one half departing), with 329 trips (134 inbound, 195 outbound) produced in the AM peak hour and 326 trips (192 inbound, 134 outbound) produced in the PM peak hour.
- Ten (10) existing key study intersections and four (4) proposed Project driveways were designated for evaluation based on City of Corona Traffic Impact Analysis (TIA) criteria and discussions with City staff. The key intersections selected for evaluation in this report provide access to the study area and are listed as follows:
 1. Grand Oaks at Cajalco Road
 2. Temescal Canyon Road at Cajalco Road
 3. Temescal Canyon Road at Blue Springs Drive
 4. Temescal Canyon Road at Pronio Circle
 5. Temescal Canyon Road at Lakeshore Drive
 6. Temescal Canyon Road at Cabot Drive
 7. Temescal Canyon Road at Dos Lagos Drive
 8. I-15 Northbound Ramps at Weirick Road/Dos Lagos Drive
 9. I-15 Southbound Ramps at Weirick Road
 10. Weirick Road/Retreat Parkway at Weirick Road/Knabe Road
 11. Temescal Canyon Road at Project Driveway 1
 12. Temescal Canyon Road at Project Driveway 2/Fashion Drive
 13. Temescal Canyon Road at Project Driveway 3 (proposed)
 14. Project Driveway 4 at Dos Lagos Drive (proposed)

Existing Traffic Conditions

- For the Existing traffic conditions, all ten (10) existing key study intersections currently operate at acceptable levels of service (LOS D or better) during the AM and PM peak hours when compared to the LOS standards defined in this report.

Existing With Project Traffic Conditions

- For the Existing With Project traffic conditions, all ten (10) key study intersections are forecast to operate at acceptable levels of service (LOS D or better) during the AM and PM peak hours when compared to the LOS standards defined in this report.

Year 2020 With Project Traffic Conditions

- For the Year 2020 With Project traffic conditions, one (1) of the ten key study intersections (Temescal Canyon Road at Cajalco Road) is forecast to operate at an unacceptable level of service during the PM peak hour when compared to the LOS standards defined in this report, and will be significantly impacted for the Year 2020 With Project traffic conditions. However, the implementation of the recommended improvements will offset the Project impacts and return the operating condition of the intersection to an acceptable level of service. The remaining key study intersections are projected to operate at acceptable service.
- The following improvements listed below have been identified to mitigate the traffic impacts at the intersection impacted by Project traffic:
 - Temescal Canyon Road at Cajalco Road: Restripe the northbound approach to provide a third exclusive northbound left-turn lane and restripe the shared northbound through/right-turn lane to an exclusive northbound right-turn lane. Install eastbound right-turn overlap traffic signal phasing that will yield to northbound U-turn movements.
- The Project's fair share responsibility toward the restriping the northbound approach and the installation of an eastbound right-turn overlap is **30.36%**. As the total cost of the improvements is estimated to be \$20,000, the Project's fair share contribution is approximately **\$6,072.00**.
- The Project driveways are forecast to operate at acceptable levels of service during the AM and PM peak hours under the Year 2020 With Project traffic conditions.
- The on-site circulation was evaluated in terms of vehicle-pedestrian conflicts. Based on our review of the preliminary site plan, the overall layout does not create significant vehicle-pedestrian conflict points such that access for the residential and commercial components are not impacted by internal vehicle queuing/stacking. Project traffic is not anticipated to cause significant internal queuing/ stacking at the Project driveway. The on-site circulation is acceptable based on our review of the proposed site plan. The alignment and spacing of the Project driveway is also deemed adequate. Turning movements into and out of the Project site at the Project driveway are anticipated to operate at an acceptable service levels. As such, motorists entering and exiting the Project site from this driveway will be able to do so comfortably, safely, and without undue congestion.

- All existing or proposed left-turn or right-turn storage is sufficient at the Project driveways along Temescal Canyon Road and Cajalco Road under Existing With Project and Year 2020 With Project traffic conditions.

TRAFFIC IMPACT ANALYSIS REPORT
PLANNING AREA 1
TERRANO AT DOS LAGOS
Corona, California
May 21, 2018
(Update of Report dated December 29, 2017)

1.0 INTRODUCTION

This traffic impact analysis evaluates the potential traffic impacts of the proposed Planning Area 1 Terrano at Dos Lagos project (hereinafter referred to as Project), on the area traffic circulation. The proposed Project consists of developing a 276-unit apartment complex, a 107 room hotel, 6,100 square-feet (SF) of commercial uses, 10,300 SF of restaurant uses, and a 20-fueling position gas station with convenience store and car wash. The Project site is located on the northwest quadrant of Temescal Canyon Road and Dos Lagos Drive, in the southeast area of the City of Corona, California. Project access will be provided via three (3) driveways along Temescal Canyon Road and one (1) driveway along Dos Lagos Drive. The Project is anticipated to be completed and fully occupied by Year 2020.

This report documents the findings and recommendations of a traffic impact analysis conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts the Project may have on the local network in the vicinity of the Project site. The traffic impact analysis evaluates the operating conditions at ten (10) existing key study intersections and four (4) proposed Project driveways within the Project vicinity, estimates the trip generation potential of the Project and forecasts future (near-term) operating conditions without and with the Project.

The Project site has been visited and an inventory of adjacent area roadways and intersections was performed. Existing (i.e. baseline) peak hour traffic information has been collected at the ten (10) key study intersections on a “typical” weekday for use in the preparation of intersection level of service calculations. This traffic report analyzes existing (i.e. baseline) and future (near-term) weekday AM and PM peak hour traffic conditions for Existing (i.e. baseline) and Year 2020 traffic conditions without and with the proposed Project. Peak hour traffic forecasts for the Year 2020 traffic conditions have been projected by increasing existing traffic volumes by an annual growth rate of two percent (2%) per year and adding the traffic from nine (9) cumulative projects.

The work program for this traffic study was developed in conjunction with the City of Corona Public Works Department staff. *Appendix A* contains a copy of the approved City of Corona Traffic Impact Study Scoping Agreement.

1.1 Study Area

1.1.1 Intersections

The ten (10) existing key study intersections and four (4) proposed Project driveways were designated for evaluation based on City of Corona Traffic Impact Analysis (TIA) criteria and discussions with City staff. The key intersections selected for evaluation in this report provide access to the study area and are listed as follows:

1. Grand Oaks at Cajalco Road
2. Temescal Canyon Road at Cajalco Road
3. Temescal Canyon Road at Blue Springs Drive
4. Temescal Canyon Road at Pronio Circle
5. Temescal Canyon Road at Lakeshore Drive
6. Temescal Canyon Road at Cabot Drive
7. Temescal Canyon Road at Dos Lagos Drive
8. I-15 Northbound Ramps at Weirick Road/Dos Lagos Drive
9. I-15 Southbound Ramps at Weirick Road
10. Weirick Road/Retreat Parkway at Weirick Road/Knabe Road
11. Temescal Canyon Road at Project Driveway 1
12. Temescal Canyon Road at Project Driveway 2/Fashion Drive
13. Temescal Canyon Road at Project Driveway 3 (proposed)
14. Project Driveway 4 at Dos Lagos Drive (proposed)

1.2 Traffic Impact Analysis Components

The Highway Capacity Manual (HCM) and corresponding Level of Service (LOS) calculations at the key study locations were used to evaluate the potential traffic-related impacts associated with area growth, cumulative projects, and the Project. When necessary, this report recommends intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service and/or addresses the impact of the Project.

Included in this Traffic Impact Analysis are:

- Existing Traffic Counts,
- Estimated Project traffic generation/distribution/assignment,
- AM and PM peak hour LOS analyses for Existing (i.e. Baseline) Conditions,
- AM and PM peak hour LOS analyses for Existing (i.e. Baseline) Conditions with Project traffic,
- AM and PM peak hour LOS analyses for Near-Term (Year 2020) Conditions without and with Project traffic,

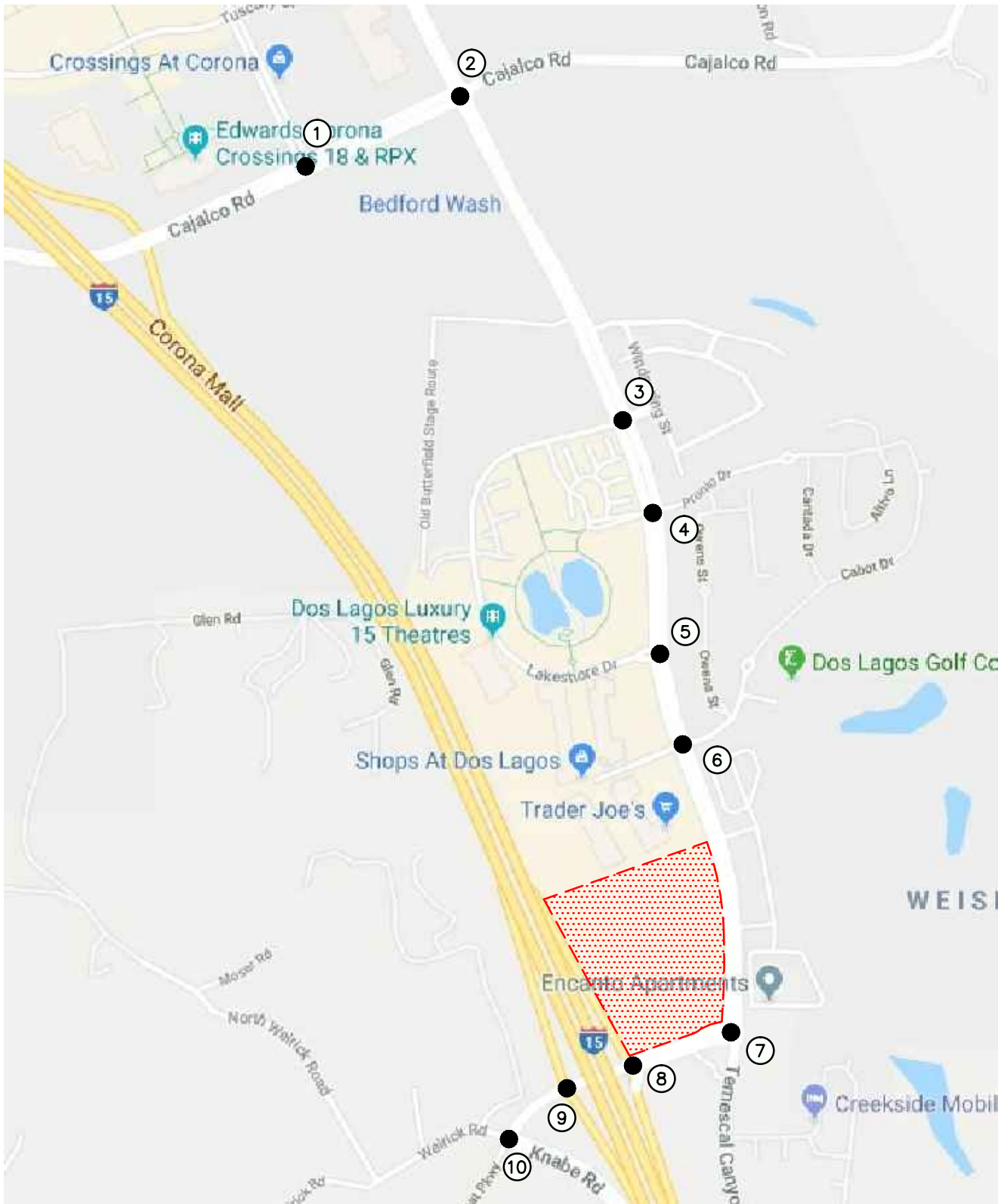
- Project-Specific Traffic Improvements, if any,
- Site Access and Internal Circulation Evaluation, and
- Queuing Analysis.

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the Project and depicts the study locations and surrounding street system.

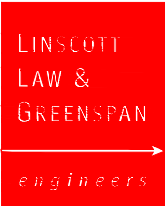
1.3 Traffic Impact Analysis Scenarios

The following scenarios are those for which Delay and corresponding LOS calculations have been performed at the key intersections for existing and near-term (Year 2020) traffic conditions:

- A. Existing (i.e. Baseline) Traffic Conditions,
- B. Existing (i.e. Baseline) With Project Traffic Conditions,
- C. Scenario (B) with Recommended Improvements, if any,
- D. Year 2020 Without Project Traffic Conditions,
- E. Year 2020 With Project Traffic Conditions, and
- F. Scenario (E) With Recommended Improvements, if any.



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NO SCALE

SOURCE: GOOGLE MAPS

KEY

= STUDY INTERSECTION

[Red dotted pattern] = PROJECT SITE

FIGURE 1-1

VICINITY MAP

PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA

2.0 PROJECT DESCRIPTION AND LOCATION

The Project is comprised of the development of a 276-unit apartment complex, a 107 room hotel, 6,100 SF of commercial uses, 10,300 SF of restaurant uses (4,000 SF of quality restaurant and 6,300 SF of high-turnover restaurant), and a 20-fueling position gas station with convenience store and car wash. The Project site is located on the northwest corner of Temescal Canyon Road and Dos Lagos Drive in the southeast area of the City of Corona, California. Project access will be provided via three (3) driveways along Temescal Canyon Road and one (1) driveway along Dos Lagos Drive. The Project is anticipated to be completed and fully occupied by Year 2020.

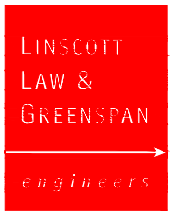
Figure 2-1 presents an aerial depiction of the existing site for the proposed Project. *Figure 2-2* presents the proposed site plan, prepared by Summa Architecture.

2.1 Site Access

As shown in *Figure 2-2*, primary access to the Project site will be provided via four (4) driveways. Driveways 1 and 3 (located along Temescal Canyon Road) and Driveway 4 (located along Dos Lagos Road) will be stop-controlled right-in/right-out only driveways. Driveway 2 (located along Temescal Canyon Road) will be a signalized (six-phase) full movement driveway aligned with the main access for the existing Encanto Apartment development on the east side of Temescal Canyon Road. It should be noted that this access is currently signalized and denoted as Fashion Drive.



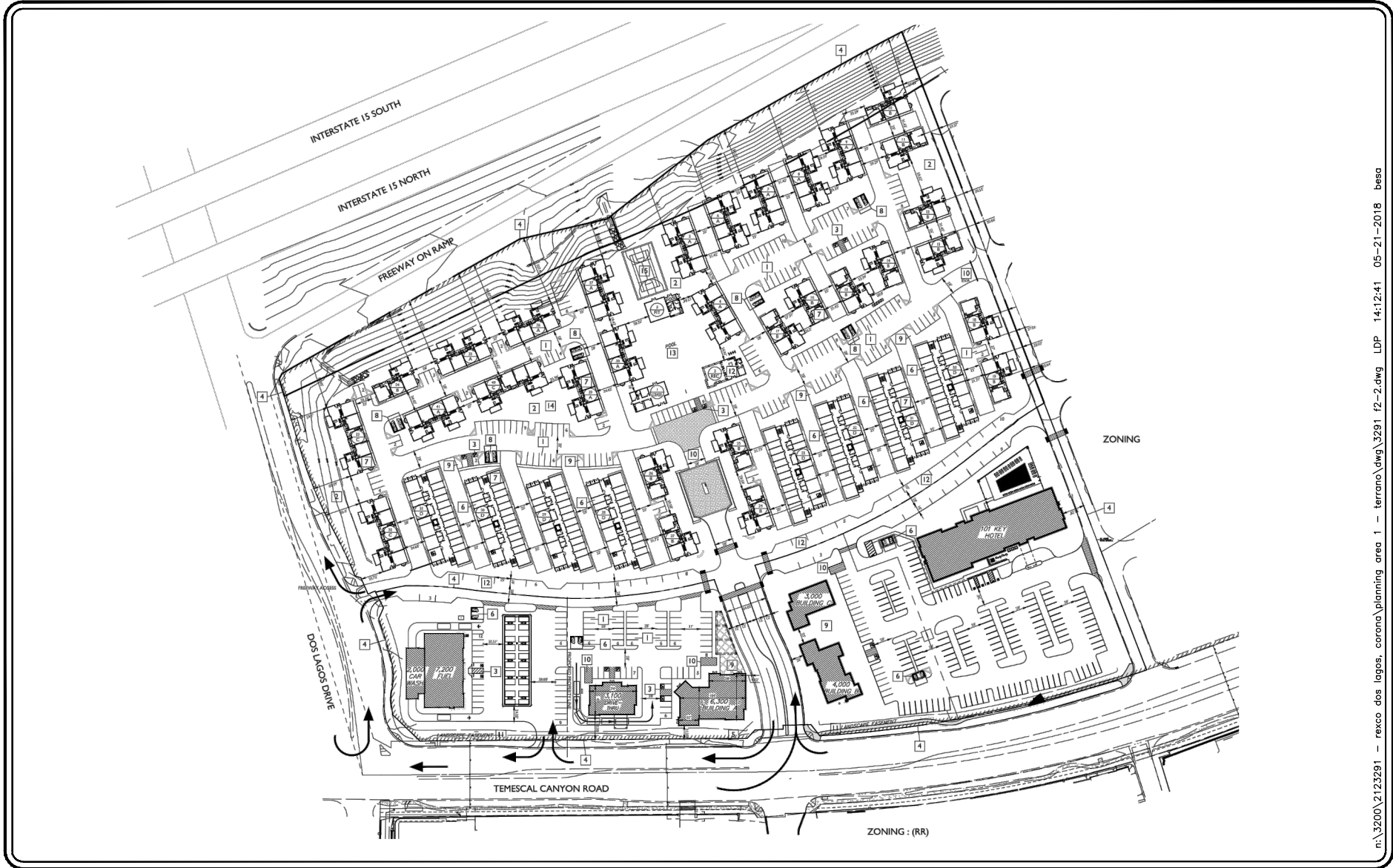
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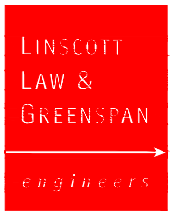
SOURCE: GOOGLE
 KEY
 [Red dotted pattern] = PROJECT SITE

FIGURE 2-1

EXISTING SITE
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



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SOURCE: SUMMA ARCHITECTURE


KEY
 = PROJECT SITE

FIGURE 2-2

PROJECT SITE PLAN

PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA

3.0 ANALYSIS CONDITIONS AND METHODOLOGY

The principal local network of streets serving the site consists of Temescal Canyon Road, Cajalco Road, Blue Springs Drive, Lakeshore Drive, Cabot Drive, and Dos Lagos Drive/Weirick Road. The following discussion provides a brief synopsis of the key area streets.

3.1 Existing Street Network

The **Corona Freeway (I-15)** provides regional access to the Project site. The I-15 Freeway is located in close proximity west of the Project site.

Temescal Canyon Road is a north-south, four-lane divided roadway located east of the Project site. Parking is not permitted along Temescal Canyon Road within the vicinity of the Project. The posted speed limit on Temescal Canyon Road is 45 miles per hour (mph). The intersections of Temescal Canyon Road at Cajalco Road, Blue Springs Drive and Lakeshore Drive are controlled by 8-phase, 6-phase and 3-phase traffic signals, respectively.

Cajalco Road is generally an east-west, six-lane divided roadway located north of the Project site. East of Temescal Canyon Road, Cajalco Road is a two-lane undivided roadway. Parking is not permitted along Cajalco Road within the vicinity of the Project. The posted speed limit on Cajalco Road is 45 mph.

Blue Springs Drive is an east-west, two-lane divided roadway that borders the Project site on the north and west. Parking is not permitted along Blue Springs Drive within the vicinity of the Project. The posted speed limit on Blue Springs Drive is 15 mph. Project access will be located along Blue Springs Drive via a full-access, unsignalized driveway.

Lakeshore Drive is an east-west as well as a north-south, two-lane undivided roadway located south and west and south of the Project site. Parking is not permitted along Lakeshore Drive within the vicinity of the Project. The posted speed limit on Lakeshore Drive is 15 mph.

Dos Lagos Drive is an east-west, two-lane divided Secondary classification roadway that borders the Project site on the south. Parking is not permitted along Dos Lagos Drive within the vicinity of the Project. The posted speed limit on Dos Lagos Drive is 35 mph.

Cabot Road is an east-west, two-lane undivided roadway that borders the Project site on the north. Parking is permitted along Cabot Road within the vicinity of the Project. The posted speed limit on Cabot Road is 25 mph.

Figure 3-1 presents an inventory of the existing roadway conditions within the study area evaluated in this report. The number of travel lanes and intersection controls for the key area study intersections are identified.

Appendix B contains the most current aerials available online for all the key study intersections. **Figure 3-2** shows the current City of Corona General Plan Circulation Element.

3.2 Existing Transit Services

The study area is served by the Riverside Transit Agency (RTA) and "Corona Cruiser," a Fixed Route Service by the City of Corona. Corona Cruiser runs along pre-designated Blue Line and Red Line fixed routes. A description of the transit services is as follows:

Riverside Transit Agency (RTA)

- Route 206 runs from Corona Transit Center to Promenade Mall, and traverses the Project area along Temescal Canyon Road, Cajalco Road, and Dos Lagos Drive. During the AM peak hour, there is one (1) southbound bus. During the PM peak hour, there are two (2) northbound buses and one (1) southbound bus.

Corona Cruiser

- This route does not traverse any of study intersections analyzed in this report during weekdays, but the Red Line provides service to The Promenade Shops at Dos Lagos on Saturdays via Temescal Canyon Road from the north.

3.3 Existing Area Traffic Volumes

Existing AM and PM peak hour traffic volumes for the ten (10) key study intersections evaluated in this report, were collected by *Counts Unlimited, Inc.* in October 2017. **Appendix C** contains the existing intersection turning movement traffic count data.

Figures 3-3 and **3-4** present the existing AM and PM peak hour traffic volumes, respectively, for the ten (10) existing key study intersections.

3.4 Level Of Service (LOS) Analysis Methodologies

AM and PM peak hour operating conditions for the key study intersections were evaluated using the methodology outlined in *Chapter 19 of the Highway Capacity Manual 6 (HCM 6)* for signalized intersections and the methodology outlined in *Chapter 20 of the HCM 6* for two-way stop-controlled intersections.

3.4.1 Highway Capacity Manual (HCM) Method of Analysis (Signalized Intersections)

In conformance with City of Corona requirements, AM and PM peak hour operating conditions for the key study intersections were evaluated using the HCM operations method of analysis. Based on the HCM operations method of analysis, level of service for signalized intersections and approaches is defined in terms of control delay, which is a measure of the increase in travel time due to traffic signal control, driver discomfort, and fuel consumption. Control delay includes the delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed. LOS criteria for traffic signals are stated in terms of the control delay in seconds per vehicle. The LOS thresholds established for the automobile mode at a signalized intersection are shown in **Table 3-1**.

3.4.2 Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. LOS criteria for unsignalized intersections differ from LOS criteria for signalized intersections as signalized intersections are designed for heavier traffic and therefore a greater delay. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable, which can reduce users' delay tolerance.

Two-way stop-controlled intersections are comprised of a major street, which is uncontrolled, and a minor street, which is controlled by stop signs. Level of service for a two-way stop-controlled intersection is determined by the computed or measured control delay. The control delay by movement, by approach, and for the intersection as a whole is estimated by the computed capacity for each movement. LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. The worst side street approach delay is reported. LOS is not defined for the intersection as a whole or for major-street approaches, as it is assumed that major-street through vehicles experience zero delay. The HCM control delay value range for two-way stop-controlled intersections is shown in *Table 3-2*.

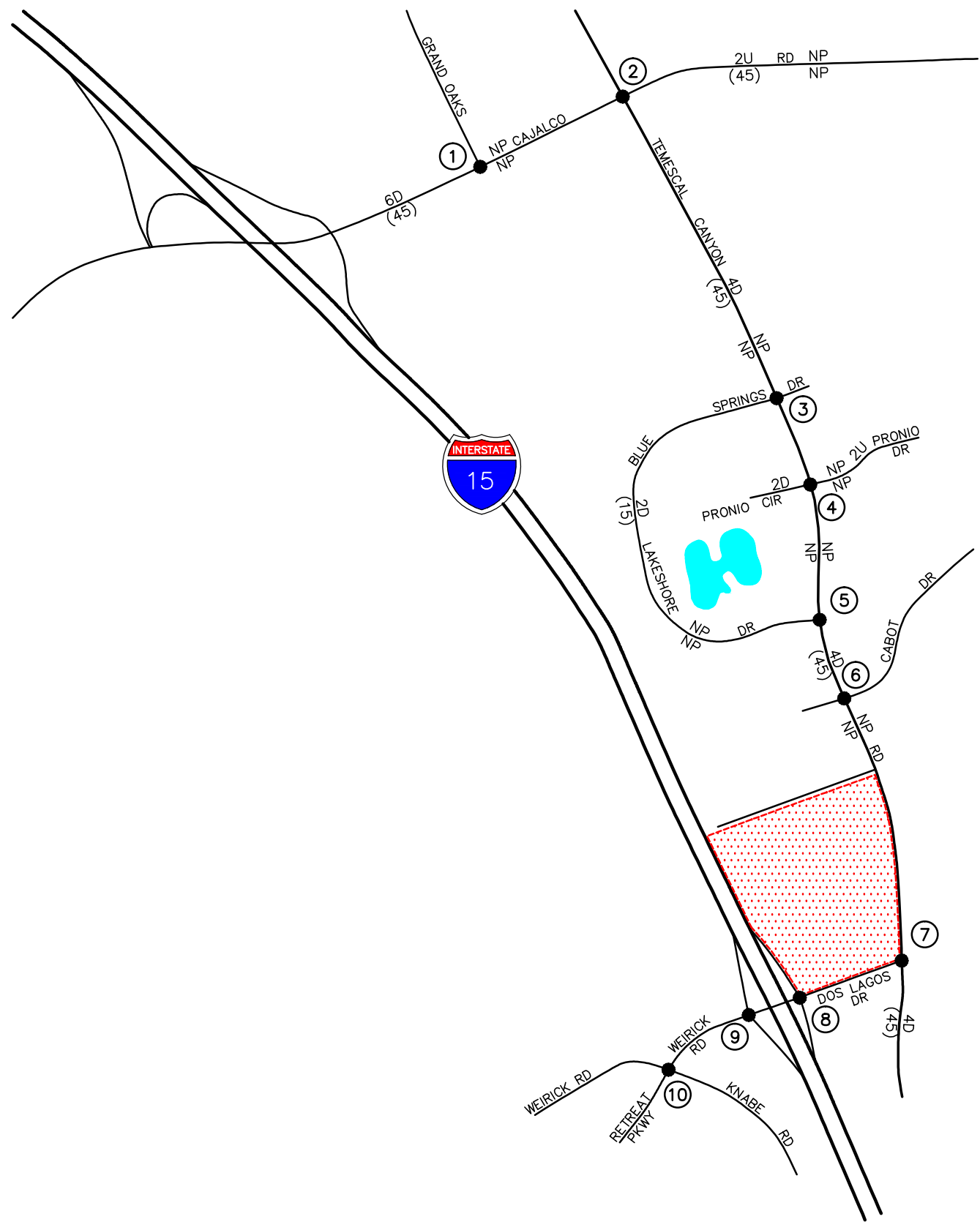
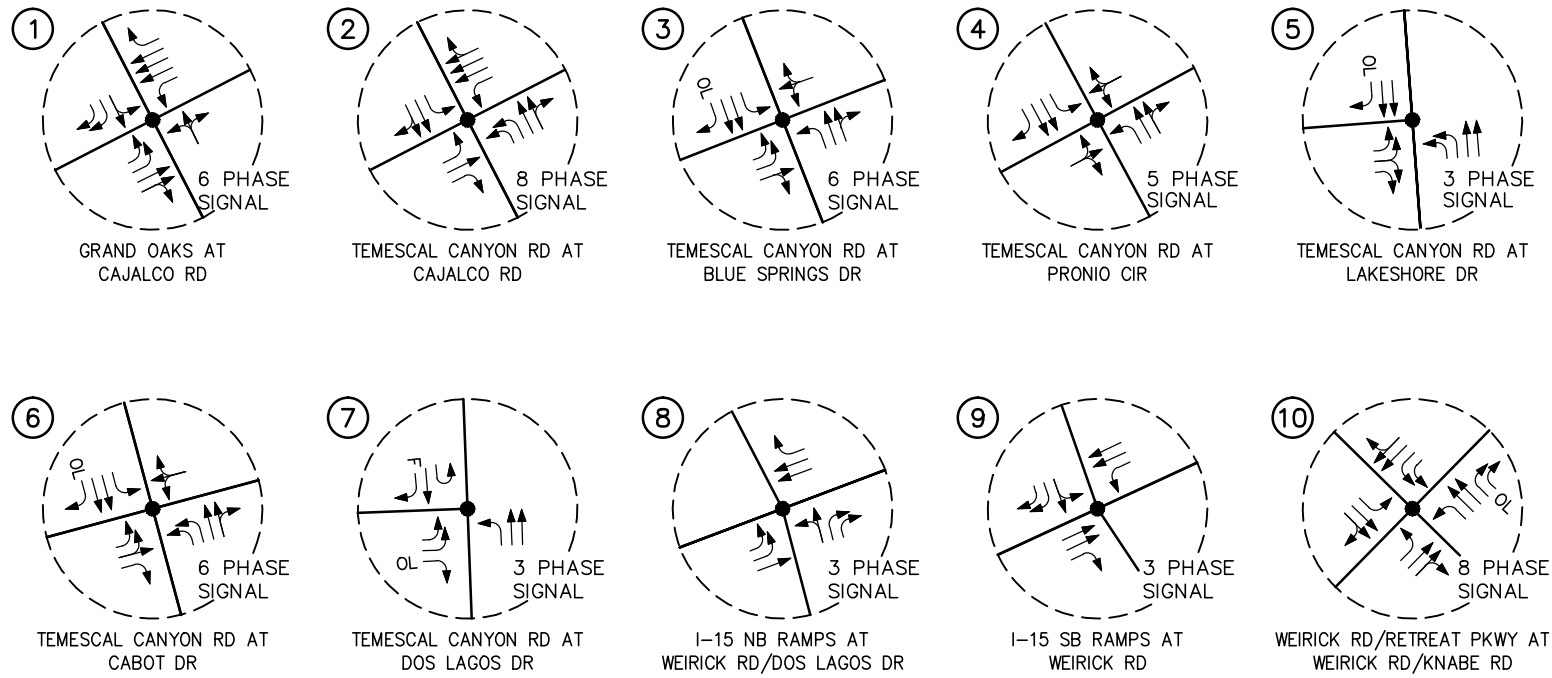
3.5 Impact Criteria and Thresholds

3.5.1 Intersections

The City of Corona considers LOS D to be the minimum acceptable LOS for all intersections that consist of collector and arterial roadways and LOS E for the Weirick Road at I-15 Ramp intersections based on the City of Corona General Plan Circulation Element Policy 6.1.6. In addition, the City of Corona considers LOS C to be the minimum acceptable LOS for local and collector streets in residential and industrial areas.

The City of Corona General Plan Circulation Element Policy 6.1.6 (adopted March 17, 2004) states:

- *Maintain Level of Service D or better on arterial streets wherever possible. At some key locations, such as at heavily traveled freeway interchanges, LOS E may be adopted as the acceptable standard, on a case-by-case basis. Locations that may warrant the LOS E standard include Lincoln Avenue at SR-91, Main Street at SR-91, McKinley Avenue at SR-91, Hidden Valley Parkway at I-15, Cajalco Road at I-15 and Weirick Road at I-15. A higher standard such as Level of Service C or better may be adopted for local and collector streets in residential areas.*



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LINSCOTT
LAW &
GREENSPAN
engineers



KEY

- # = STUDY INTERSECTION
- = APPROACH LANE ASSIGNMENT
- = TRAFFIC SIGNAL
- P = PARKING, NP = NO PARKING
- U = UNDIVIDED, D = DIVIDED
- 2 = NUMBER OF TRAVEL LANES
- (XX) = POSTED SPEED LIMIT (MPH)
- OL = RIGHT-TURN OVERLAP
- F = FREE RIGHT
- [Red Hatched Box] = PROJECT SITE

FIGURE 3-1

EXISTING ROADWAY CONDITIONS
AND INTERSECTION CONTROLS

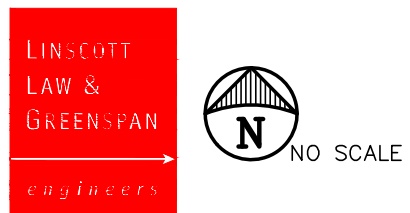
PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



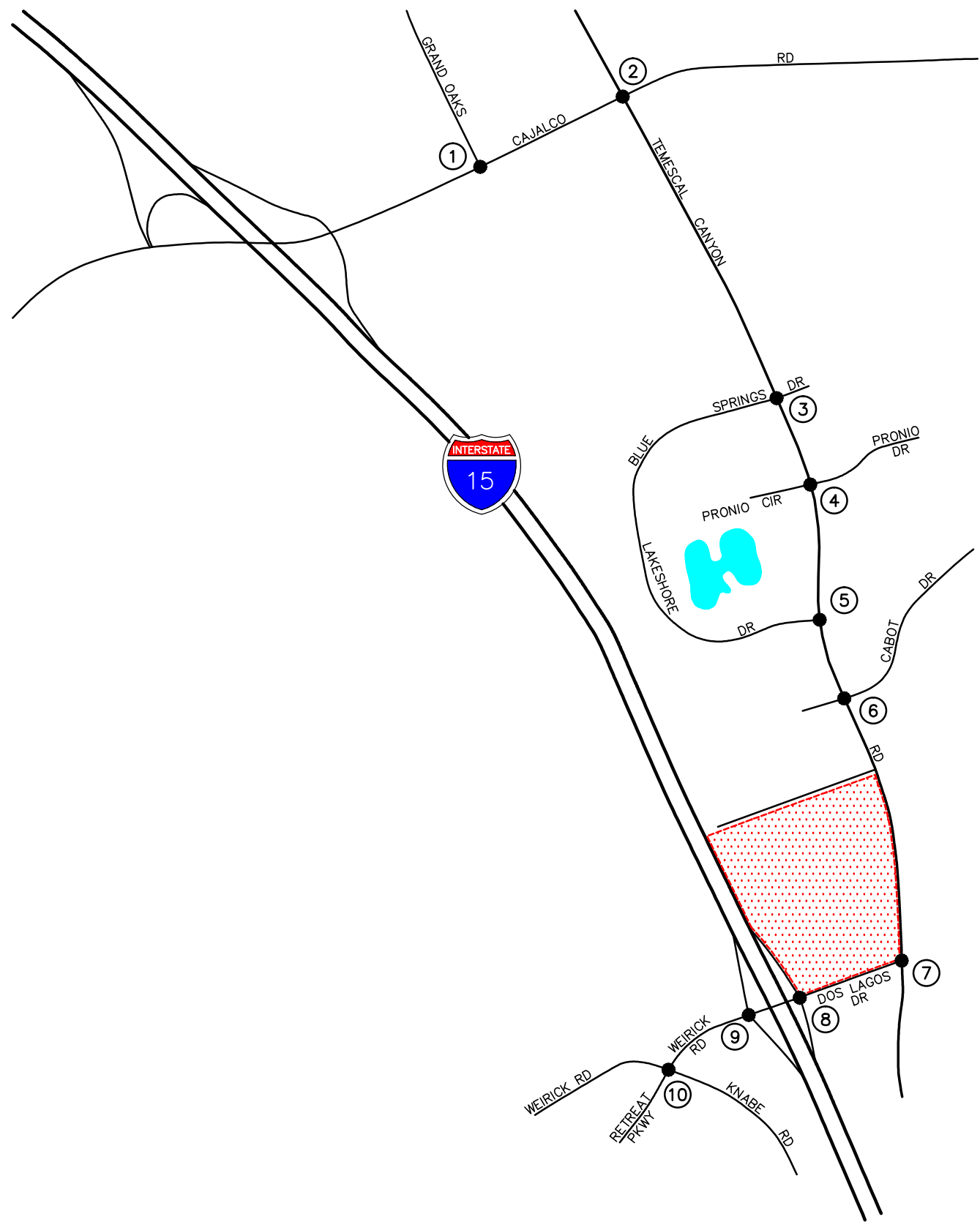
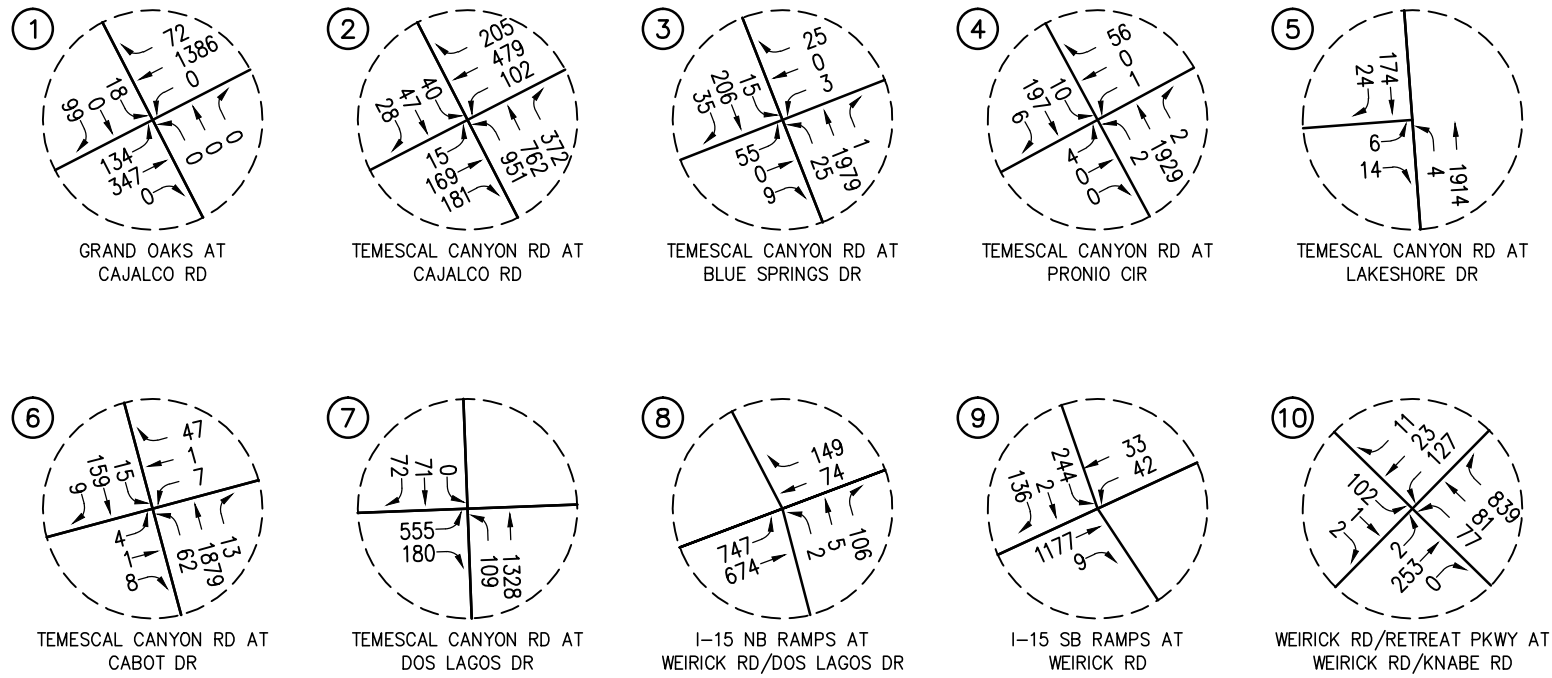
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SOURCE: CITY OF CORONA

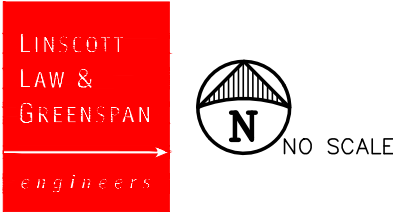
FIGURE 3-2



CITY OF CORONA GENERAL PLAN CIRCULATION ELEMENT
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



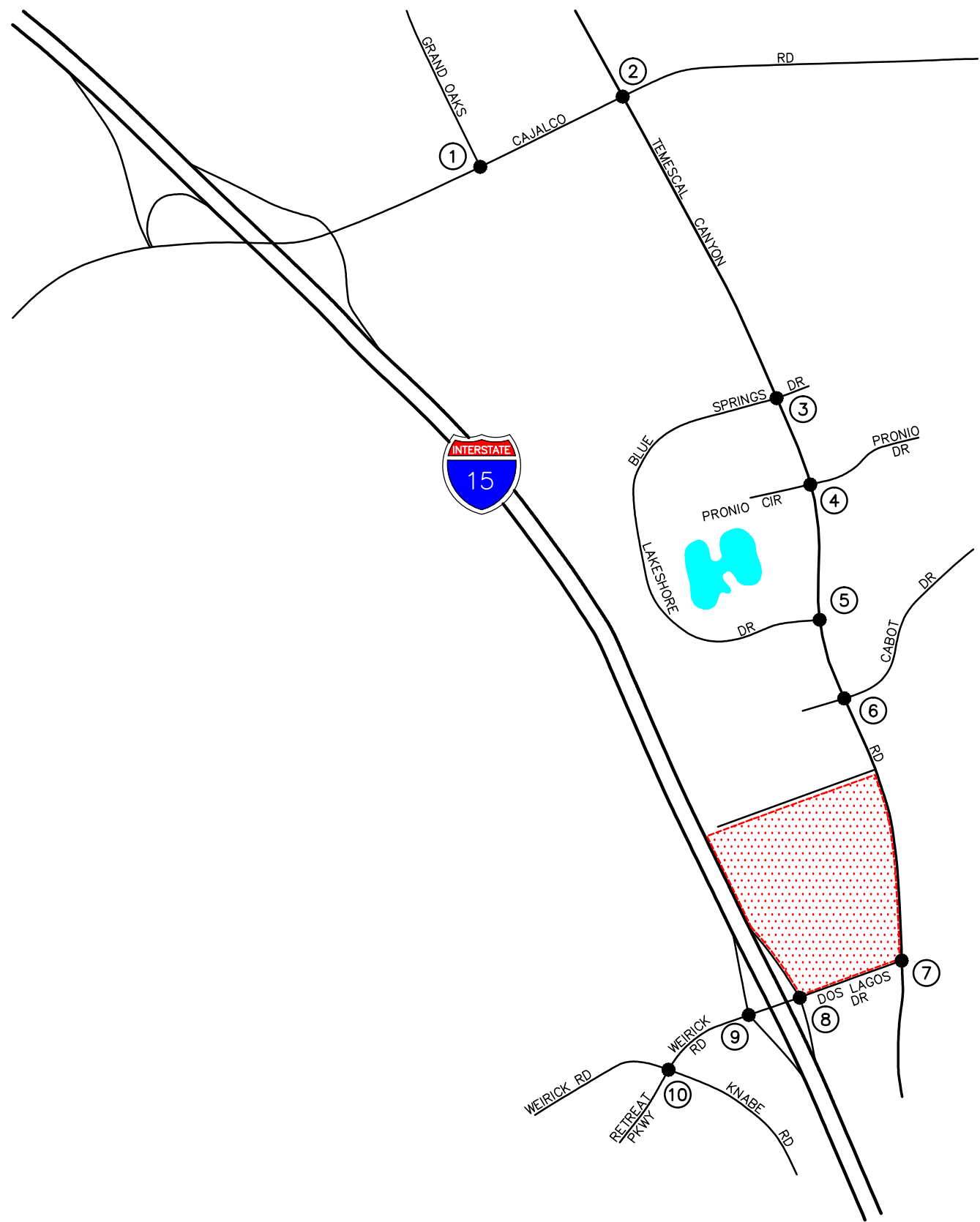
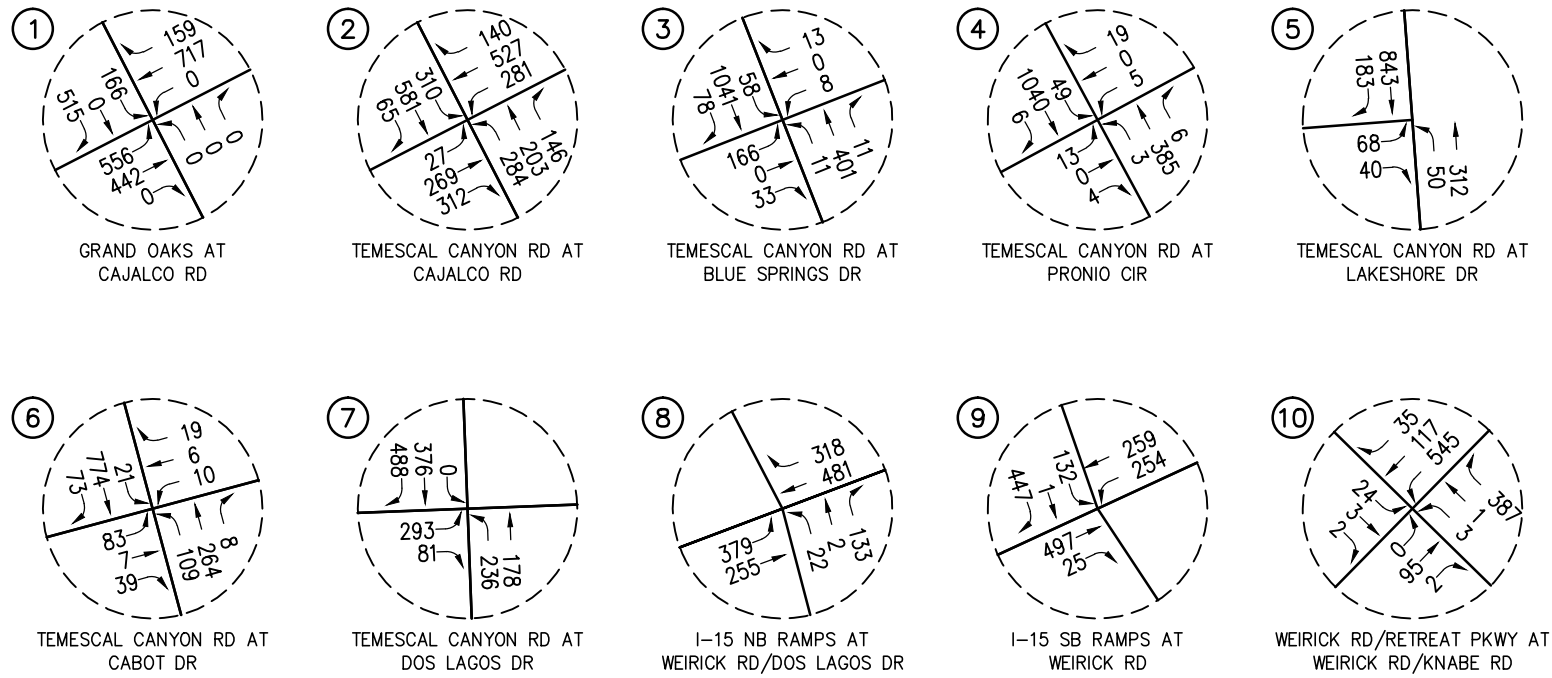
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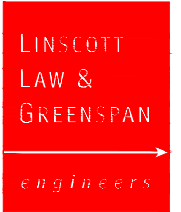
KEY
 (1) = STUDY INTERSECTION
 [Red Hatched Box] = PROJECT SITE

FIGURE 3-3

EXISTING AM PEAK HOUR TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



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KEY
 (1) = STUDY INTERSECTION
 [Red Dotted Area] = PROJECT SITE

FIGURE 3-4

EXISTING PM PEAK HOUR TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA

TABLE 3-1
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (HCM METHODOLOGY)¹

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	Very long traffic delays This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

¹ Source: *Highway Capacity Manual 6*, Chapter 19: Signalized Intersections.

TABLE 3-2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM METHODOLOGY)²

Level of Service (LOS)	Highway Capacity Manual (HCM) Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

² Source: *Highway Capacity Manual 6*, Chapter 20: Two-Way Stop-Controlled Intersections. The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations and/or rates to the Project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound Project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds.

Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway segments and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast Project traffic. If necessary, the need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Trip Generation Forecast

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the Ninth Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2012].

Table 5-1 summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project. The trip generation potential for the proposed Project was forecast using the ITE Land Use rates shown in *Table 5-1*.

Table 5-2 presents the forecast daily and peak hour Project traffic volumes for a "typical" weekday. Applicable pass-by reduction and internal capture factors were incorporated into the daily, AM peak hour and PM peak hour traffic forecasts. The factors used in this report, which are summarized in the footnotes of *Table 5-2*, are based on information published in the *Trip Generation Handbook*, published by ITE, August 2014.

Hence, the net traffic generation potential of the proposed project totals 4,775 daily trips (one half arriving, one half departing), with 329 trips (134 inbound, 195 outbound) produced in the AM peak hour and 326 trips (192 inbound, 134 outbound) produced in the PM peak hour. The potential traffic impacts of the aforementioned net project trips are evaluated in the traffic analysis section of this report. The trip generation methodology and forecasts were approved by the City of Corona staff prior to proceeding with further analysis.

5.2 Project Trip Distribution and Assignment

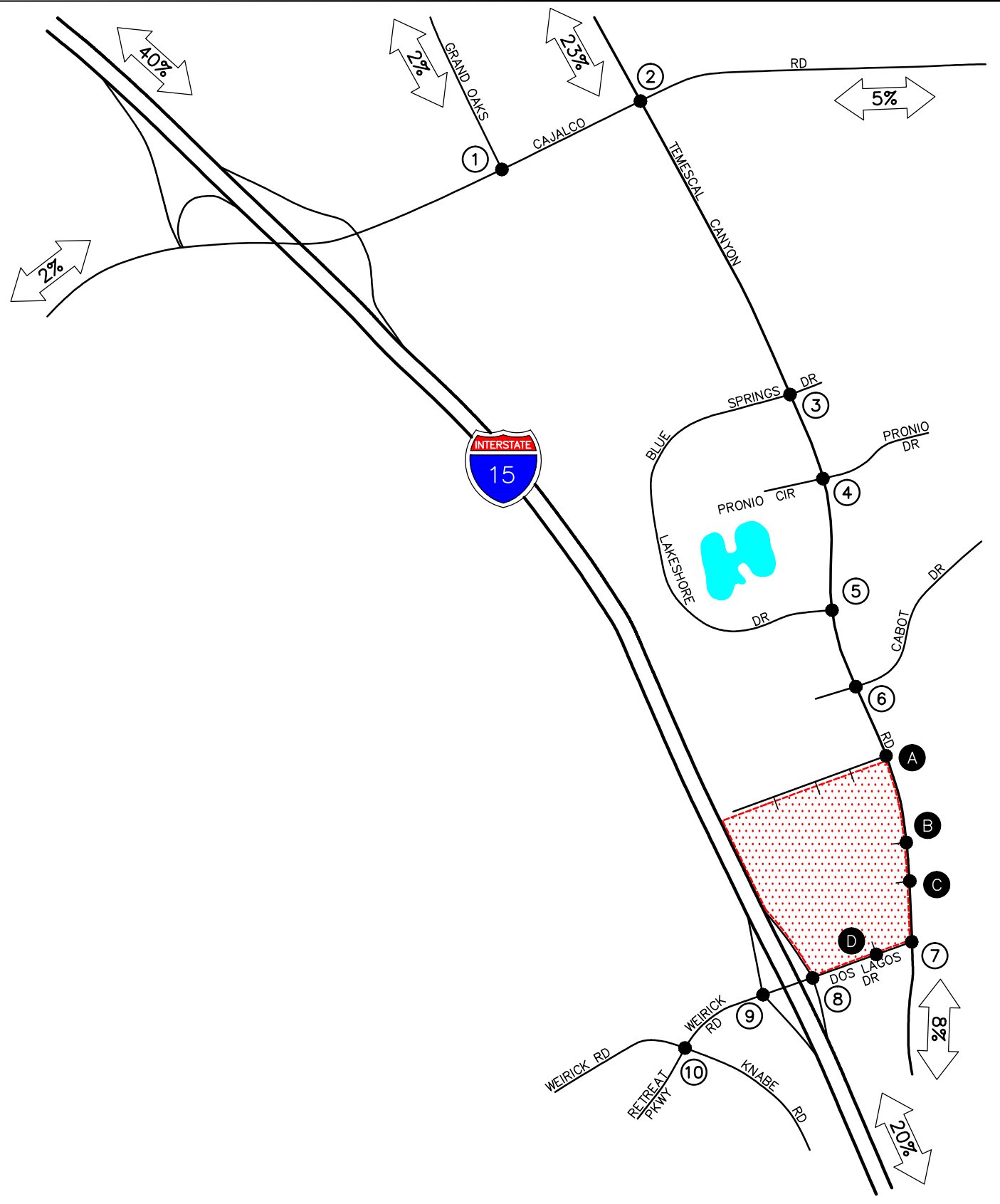
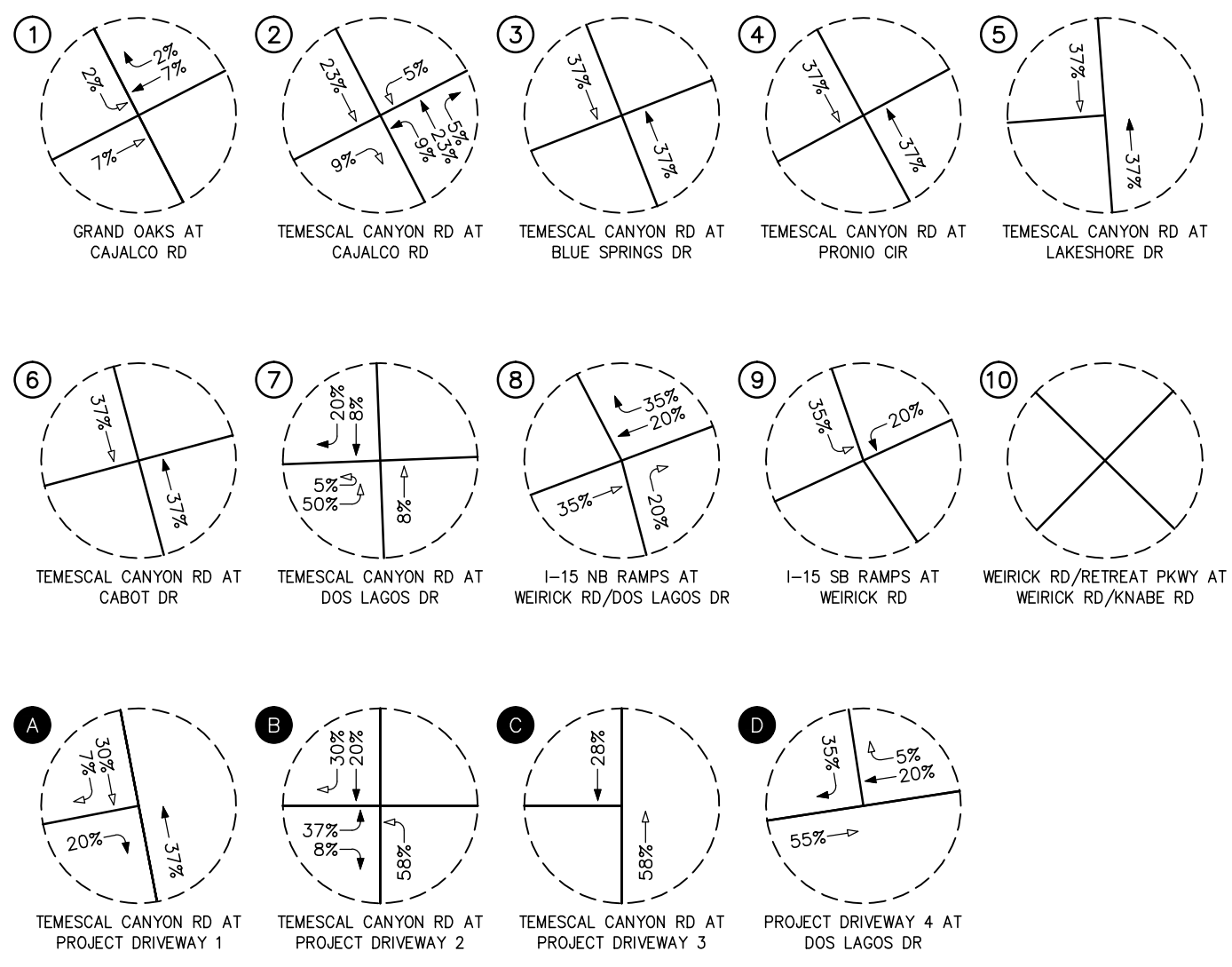
The directional trip distribution patterns for the Residential and Commercial components of the Project are presented in *Figures 5-1* and *5-2*. Project traffic volumes, both entering and exiting the site, have been distributed and assigned to the adjacent street system based on the following considerations:

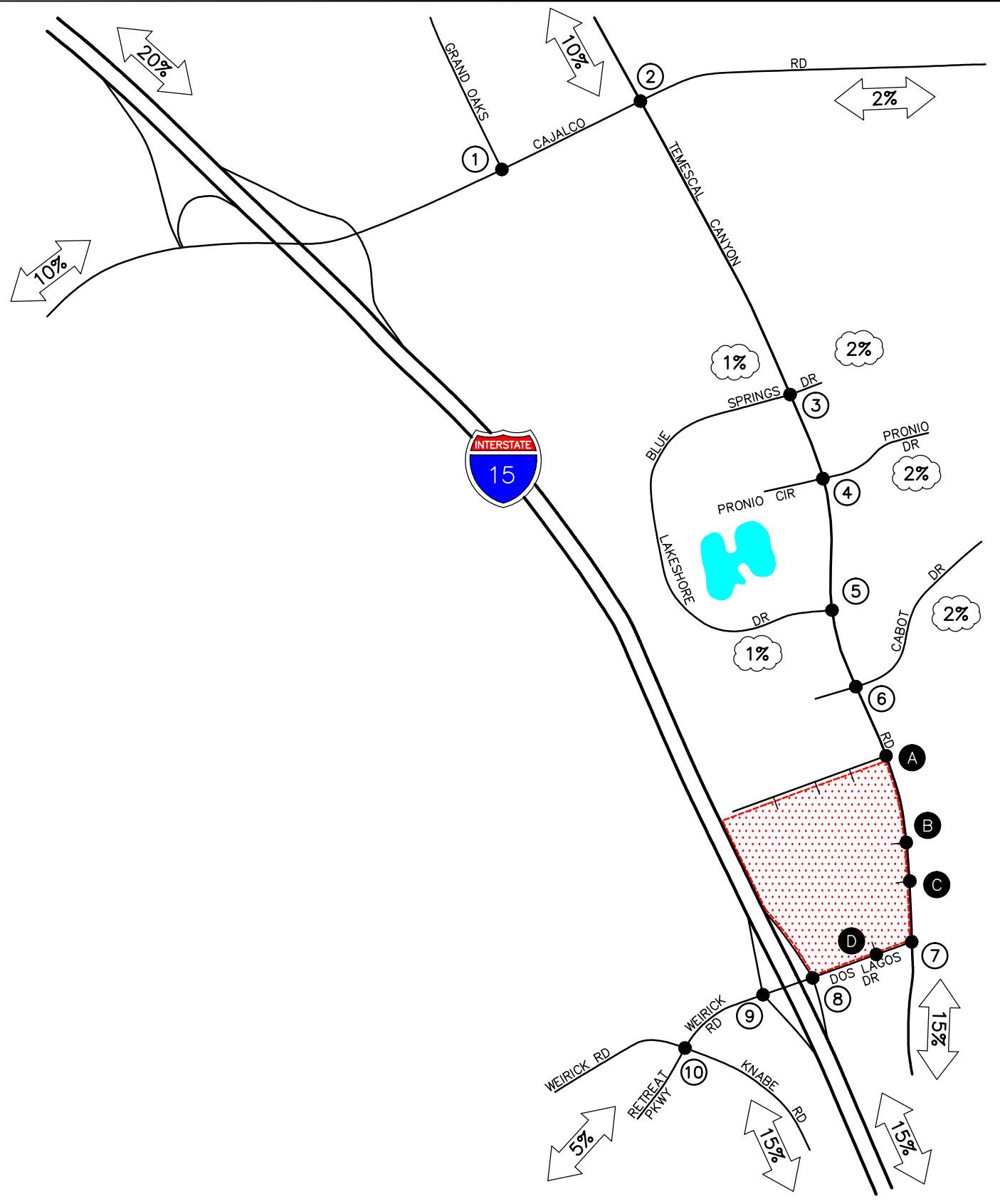
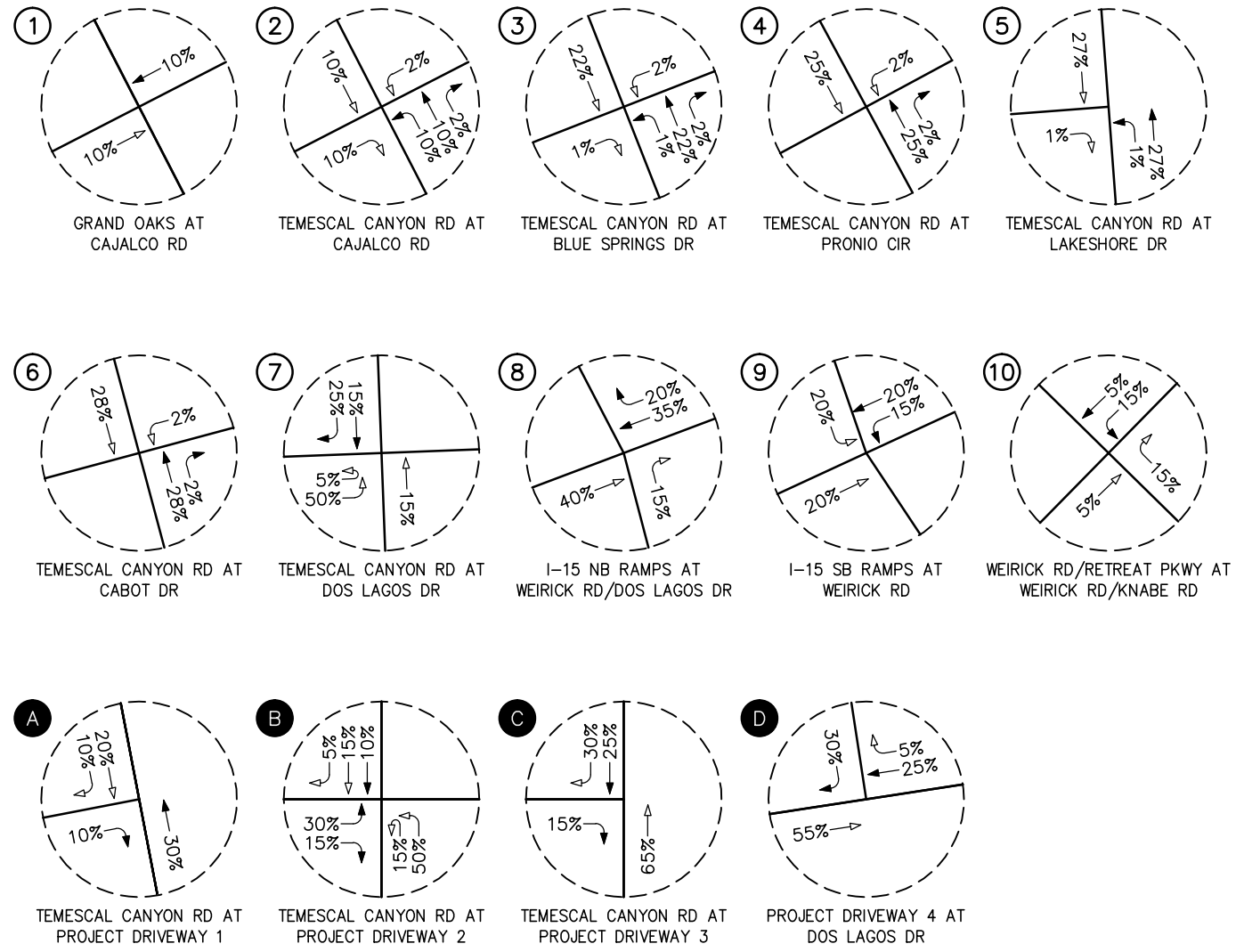
- the site's proximity to major traffic carriers (i.e. I-15 Freeway, Cajalco Road, etc...),
- expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals;
- ingress/egress availability at the Project site; and
- the traffic-carrying capacity and travel speed available on roadways serving the Project site.

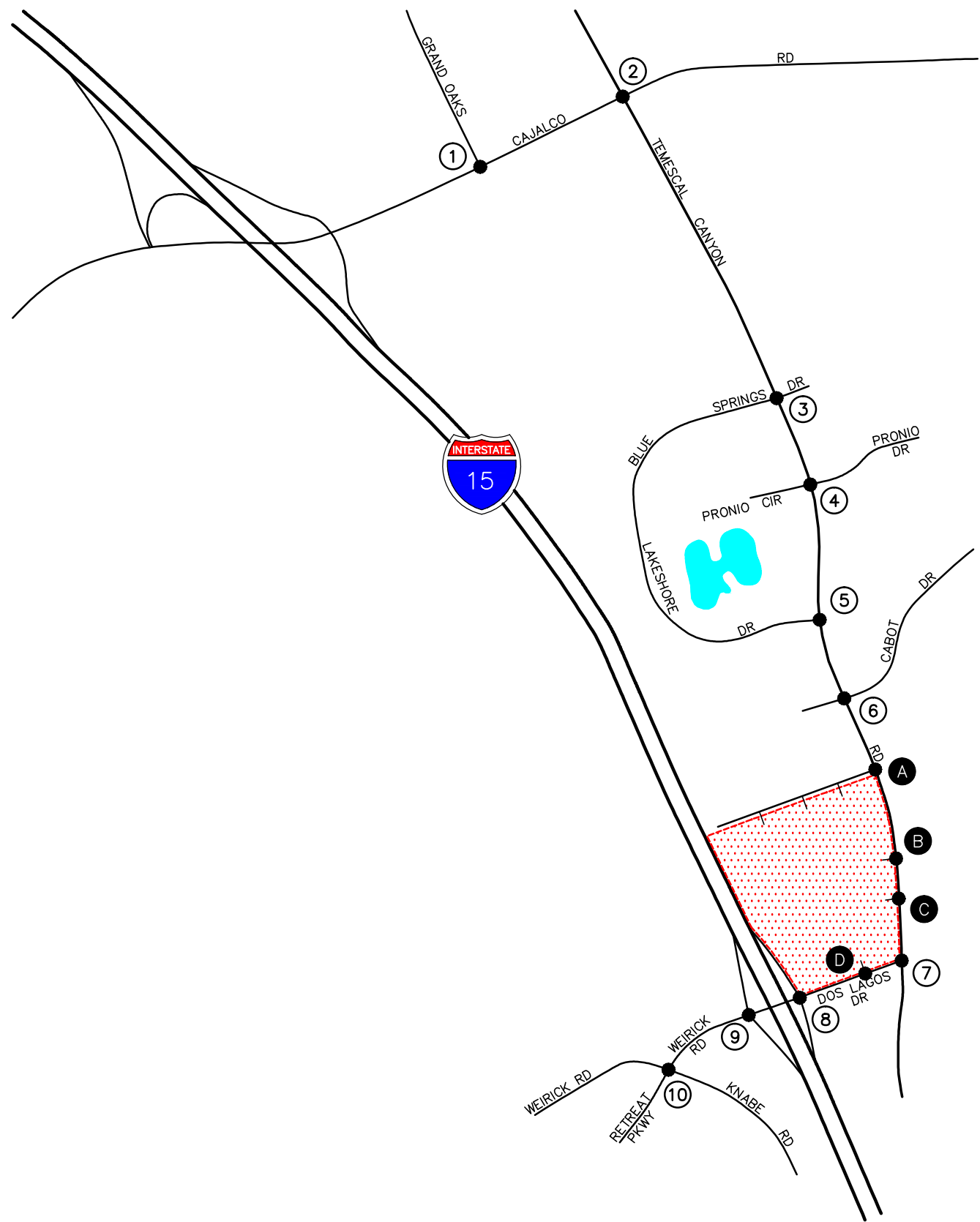
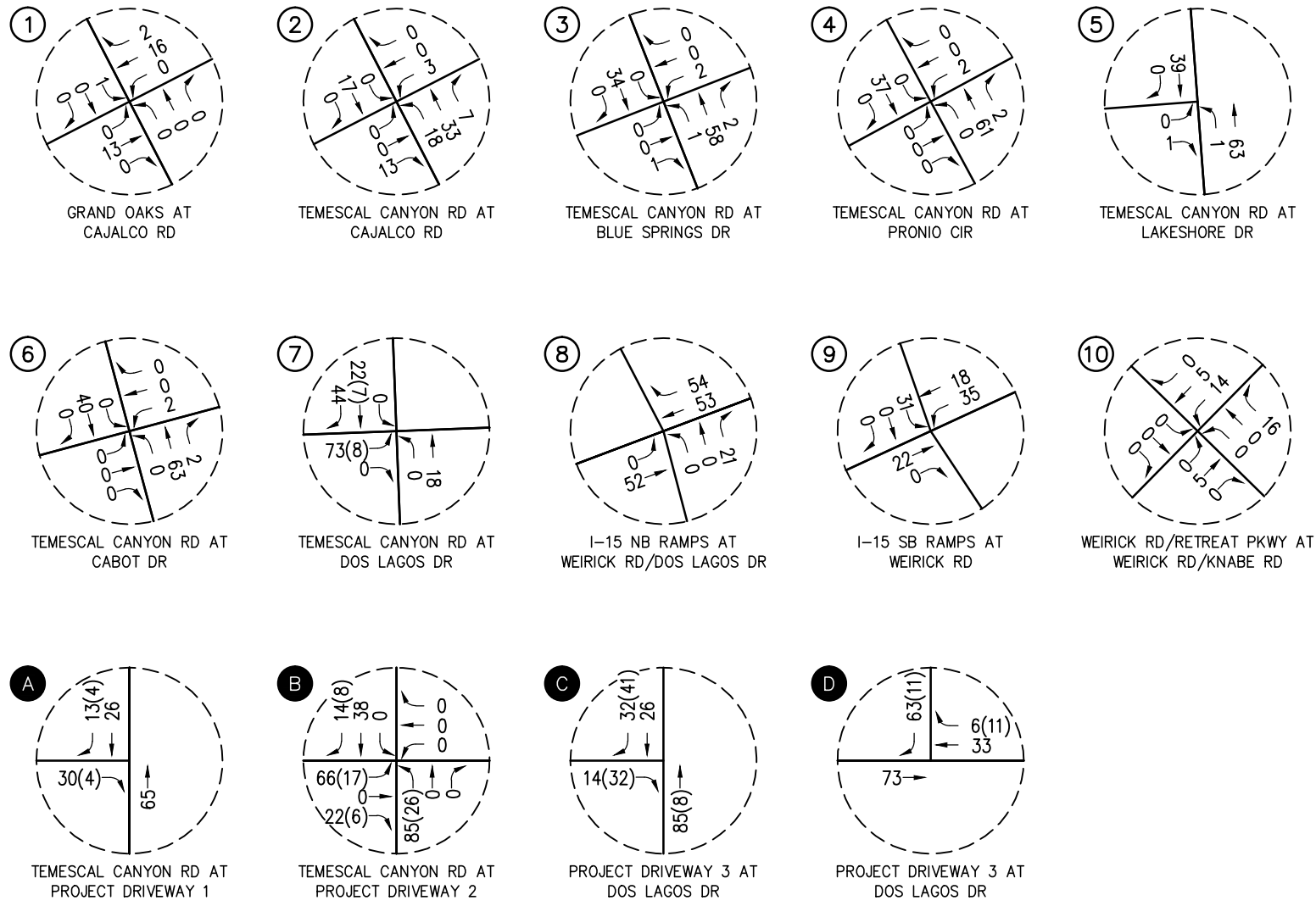
The Project trip distribution pattern was submitted to the City staff for their review and approval prior to proceeding with further analyses.

The anticipated AM and PM peak hour Project traffic volumes at the ten (10) key study intersections and four (4) Project driveways are presented in *Figures 5-3* and *5-4*, respectively. The traffic volume

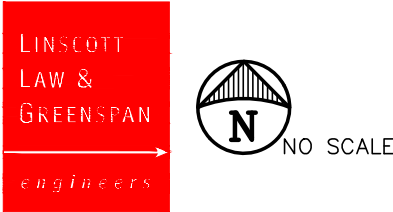
assignment presented in the above mentioned figures reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in the lower portion of *Table 5-2*.







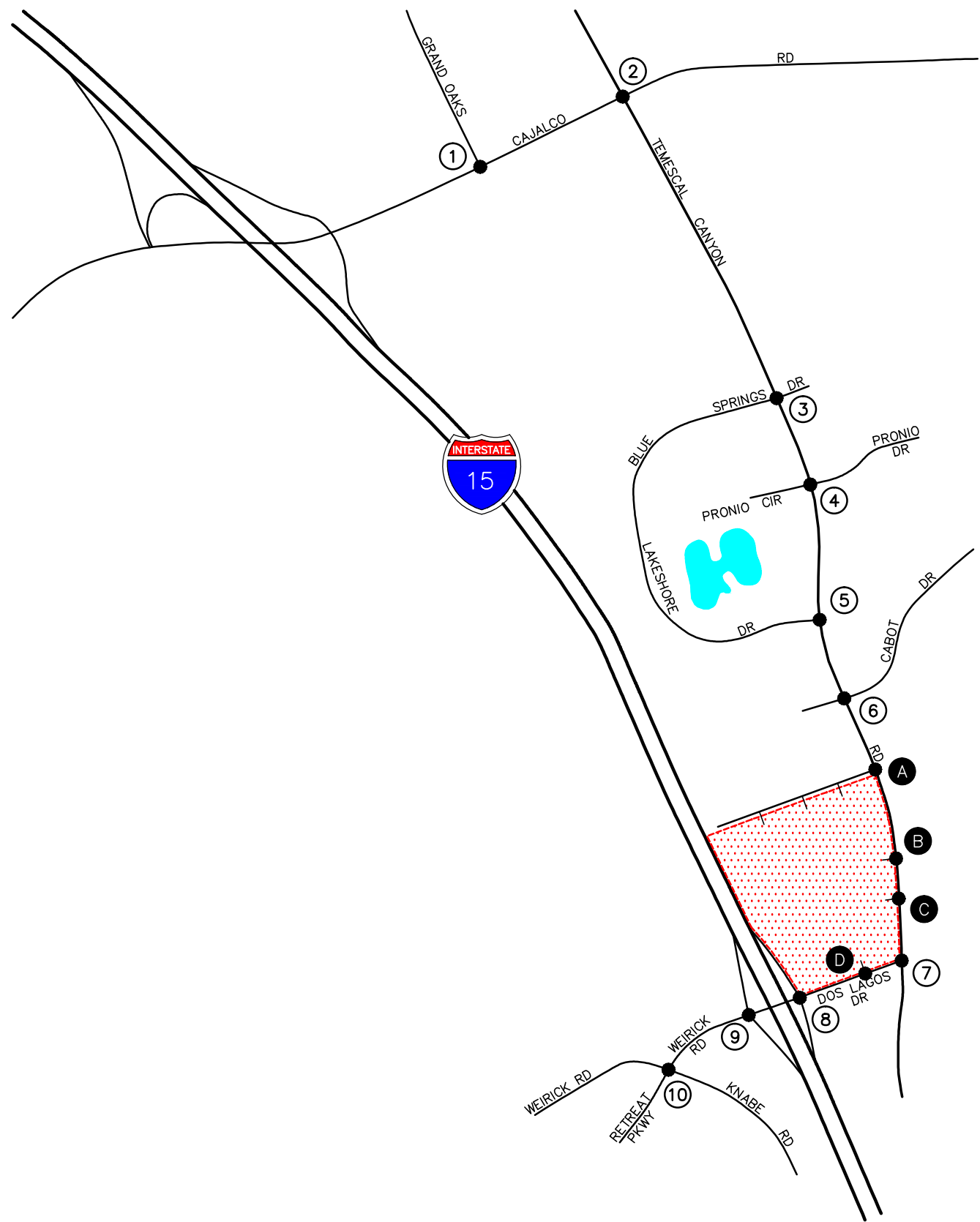
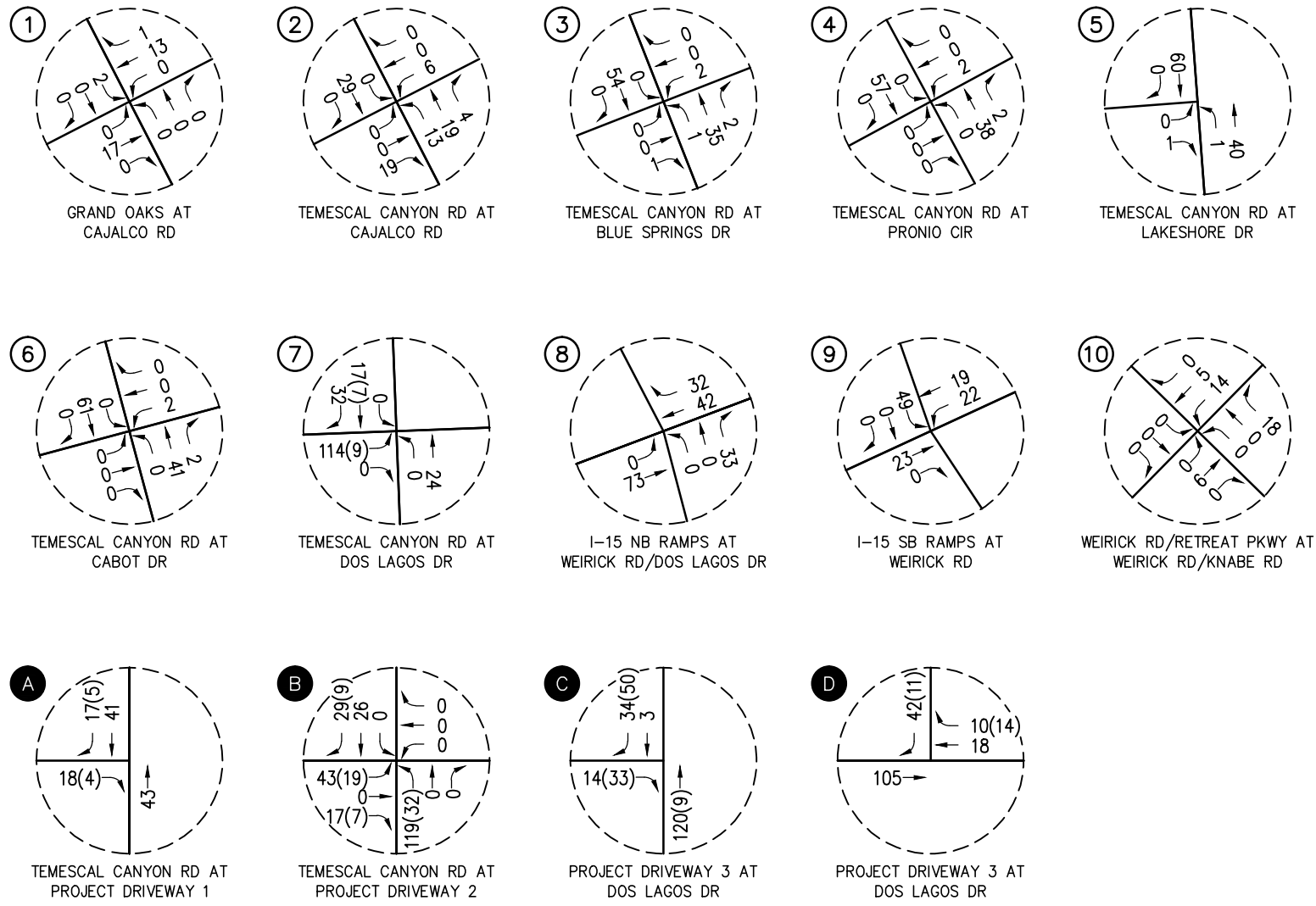
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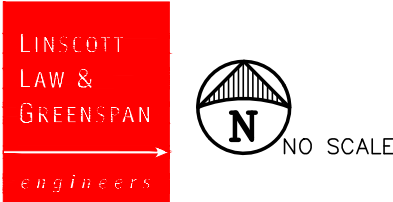
KEY
 # = STUDY INTERSECTION
 (XX) = PASS-BY-TRIPS
 [Red Hatched Box] = PROJECT SITE

FIGURE 5-3

AM PEAK HOUR PROJECT TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



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KEY
 # = STUDY INTERSECTION
 (XX) = PASS-BY-TRIPS
 [Red Hatched Box] = PROJECT SITE

FIGURE 5-4

PM PEAK HOUR PROJECT TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA

**TABLE 5-1
PROJECT TRAFFIC GENERATION RATES³**

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<u>Generation Factors:</u>							
▪ 220: Apartment (TE/DU)	6.65	20%	80%	0.51	65%	35%	0.62
▪ 310: Hotel (TE/Room)	8.17	59%	41%	0.53	51%	49%	0.60
▪ 820: Shopping Center (TE/1,000 SF) ⁴	95.73	62%	38%	2.29	48%	52%	8.28
▪ 931: Quality Restaurant (TE/1,000 SF)	89.95	--	--	0.81	67%	33%	7.49
▪ 932: High-Turnover (Sit-Down) Restaurant (TE/1,000 SF)	127.15	55%	45%	10.81	60%	40%	9.85
▪ 946: Gasoline/Service Station with Convenience Store with Car Wash (TE/Vehicle Fueling Positions)	152.84	51%	49%	11.84	51%	49%	13.86

Notes:

- TE = Trip ends
- DU = Dwelling unit

³ Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012). Average rates used.

⁴ Shopping Center rates based on equation for 6.200 TSF shopping center.

**TABLE 5-2
PROJECT TRAFFIC GENERATION FORECAST⁵**

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Proposed Project Generation Forecast:</i>							
▪ Apartments (276 DU)	1,835	28	113	141	111	60	171
Internal Capture ⁶	-688	-2	-9	-11	-36	-22	-58
<i>Subtotal - Apartments</i>	<i>1,147</i>	<i>26</i>	<i>104</i>	<i>130</i>	<i>75</i>	<i>38</i>	<i>113</i>
▪ Hotel (107 Rooms)	874	34	23	57	33	31	64
Internal Capture ⁶	-190	-1	-5	-6	-10	-5	-15
<i>Subtotal - Hotel</i>	<i>684</i>	<i>33</i>	<i>18</i>	<i>51</i>	<i>23</i>	<i>26</i>	<i>49</i>
▪ Shopping Center (6,100 SF)	1,103	17	11	28	44	48	92
Internal Capture ⁶	-407	-2	-2	-3	-11	-22	-32
Subtotal	696	15	9	25	33	26	60
Pass-by (Daily: 10%, AM: 10% PM: 34%)	-70	-2	-1	-3	-11	-9	-20
<i>Subtotal - Shopping Center</i>	<i>626</i>	<i>13</i>	<i>8</i>	<i>22</i>	<i>22</i>	<i>17</i>	<i>40</i>
▪ Quality Restaurant (4,000 SF)	360	2	1	3	20	10	30
Internal Capture ⁶	-205	-1	0	-1	-10	-6	-16
Subtotal	155	1	1	2	10	4	14
Pass-by (Daily: 10%, AM: 0% PM: 44%)	-16	0	0	0	-4	-2	-6
<i>Subtotal - Quality Restaurant</i>	<i>139</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>6</i>	<i>2</i>	<i>8</i>
▪ High-Turnover Restaurant (6,300 SF)	801	37	31	68	37	25	62
Internal Capture ⁶	-457	-18	-6	-24	-18	-16	-34
Subtotal	344	19	25	44	19	9	28
Pass-by (Daily: 10%, AM: 0% PM: 43%)	-34	-2	-2	-4	-8	-4	-12
<i>Subtotal - High-Turnover Restaurant</i>	<i>310</i>	<i>17</i>	<i>23</i>	<i>40</i>	<i>11</i>	<i>5</i>	<i>16</i>
▪ Gas Station (20 fueling stations)	3,057	121	116	237	141	136	277
Internal Capture ⁶	-565	-6	-8	-15	-17	-31	-49
Subtotal	2,492	115	108	222	124	105	228
Pass-by (Daily: 25%, AM: 62% PM: 56%)	-623	-71	-67	-138	-69	-59	-128
<i>Subtotal - Gas Station</i>	<i>1,869</i>	<i>44</i>	<i>41</i>	<i>84</i>	<i>55</i>	<i>46</i>	<i>100</i>
Total Traffic Generation Forecast	4,775	134	195	329	192	134	326

⁵ Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012). Average rates used.

⁶ Internal capture trips were calculated using the Internal Capture spreadsheet tool developed by NCHRP.

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Existing With Project Traffic Volumes

The estimates of Project-generated traffic volumes were added to the Existing traffic conditions to develop traffic projections for the Existing With Project traffic conditions. *Figures 6-1* and *6-2* present the anticipated AM and PM peak hour Existing With Project traffic volumes, respectively, at the ten (10) key study intersections and four (4) Project driveways.

6.2 Year 2020 Without Project Traffic Volumes

6.2.1 Ambient Growth Traffic

For future traffic conditions, background traffic growth estimates have been calculated using an ambient growth factor. The ambient growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The application of the two percent (2%) annual growth rate to baseline Year 2017 traffic volumes results in a six percent (6%) growth in existing baseline volumes at the ten (10) key study intersections to horizon Year 2020.

6.2.2 Cumulative Projects Traffic

The City of Corona and Riverside County have identified nine (9) cumulative projects within the Project study area. Cumulative projects, as defined by Section 15355 of the CEQA Guidelines, are “closely related past, present and reasonably foreseeable probable future projects.” The Traffic Impact Analysis assumes that these cumulative projects will be developed and operational when the proposed Project is operational, which is the most conservative approach, since the exact timing of each cumulative project is uncertain. In addition, impacts for these cumulative projects would likely be, or have been, subject to mitigation measures, which could reduce potential impacts. Under this analysis, however, those mitigation measures are not considered. The locations of these cumulative projects are presented in *Figure 6-3*.

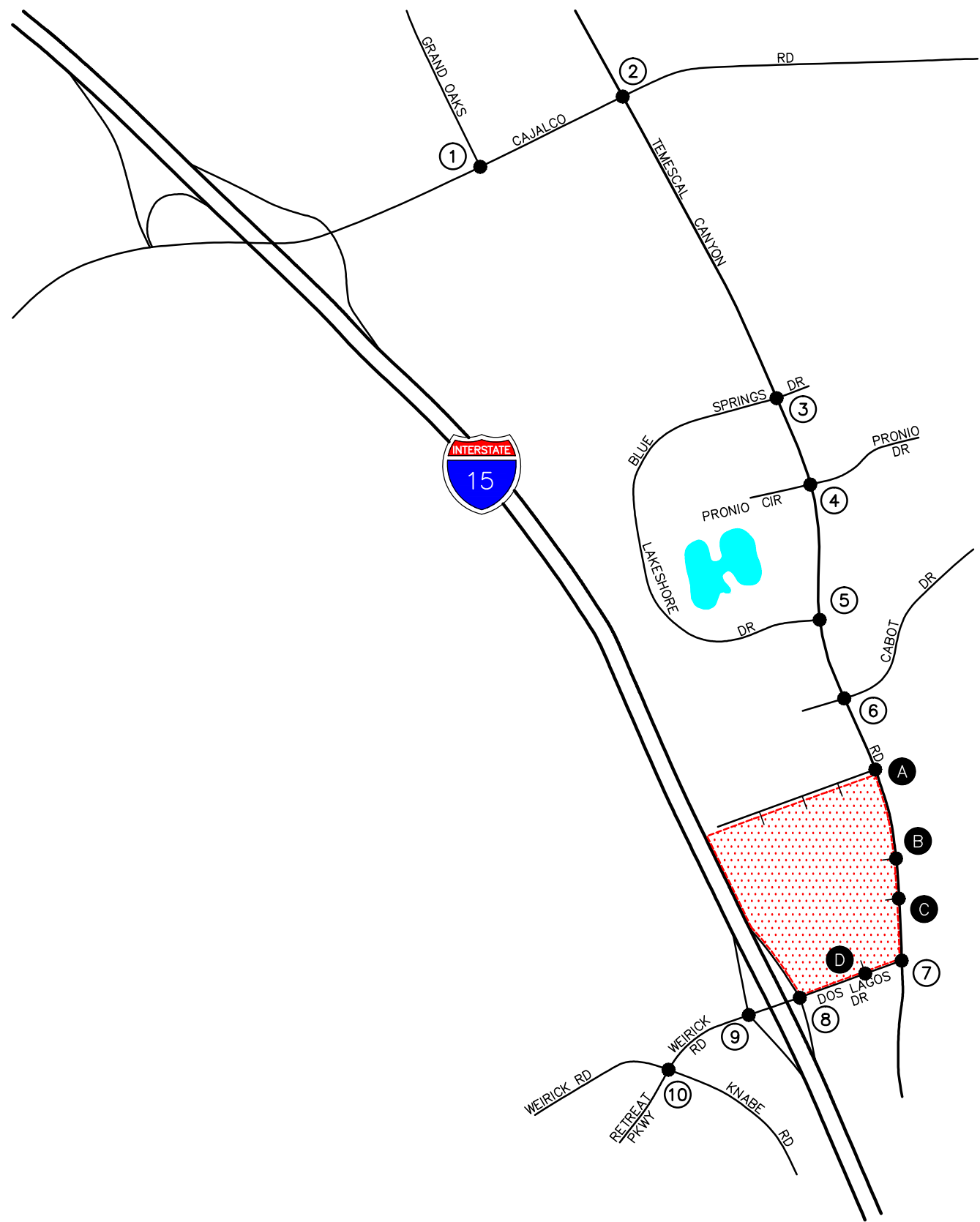
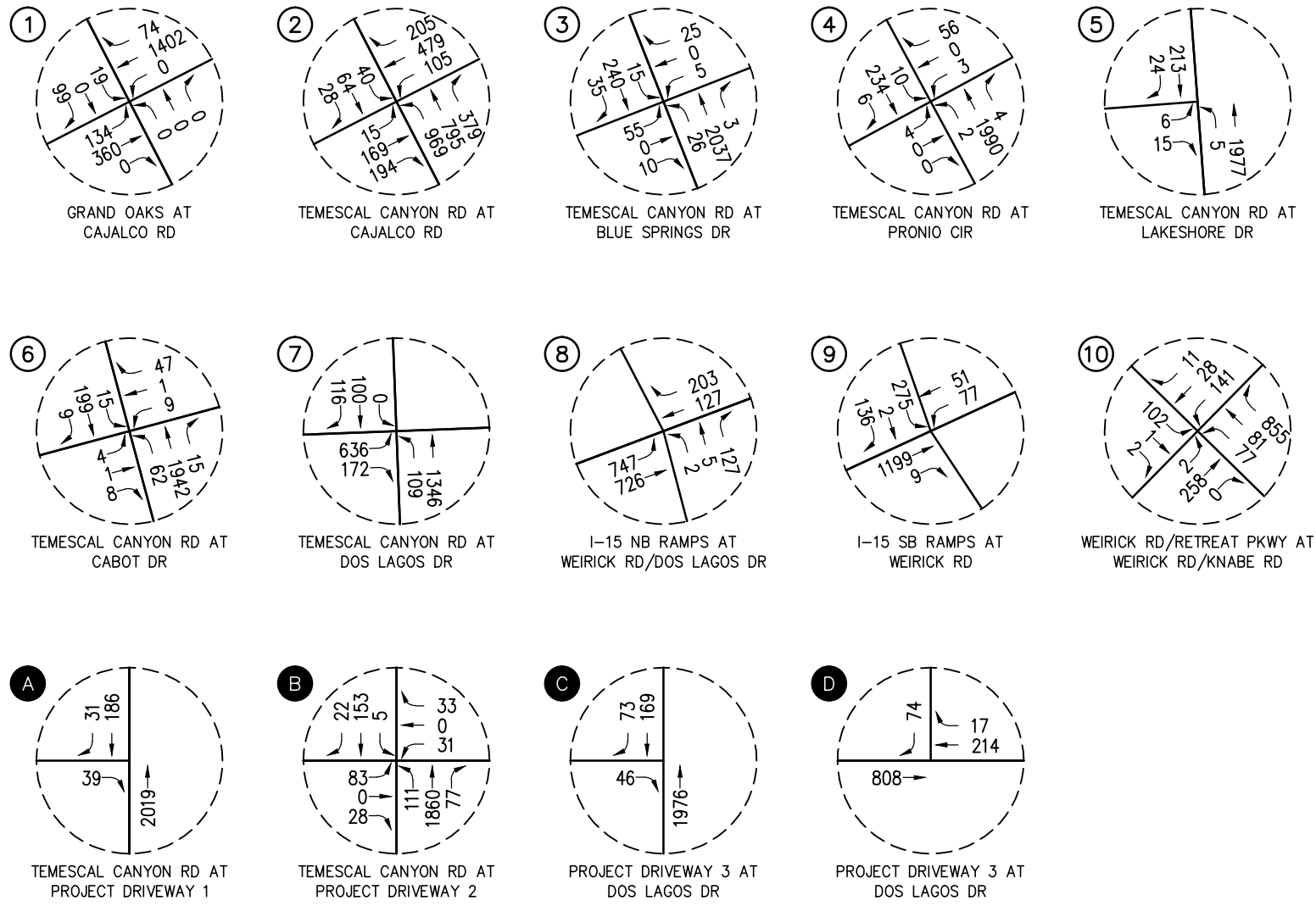
Table 6-1 presents the location, description, and development totals of the cumulative projects. *Table 6-2* presents the resultant trip generation for cumulative projects. As shown in *Table 6-2*, the nine (9) cumulative projects are expected to generate 9,222 daily trips (one half arriving, one half departing) on a “typical” weekday, with 768 trips forecast during the AM peak hour and 913 trips forecast during the PM peak hour.

The anticipated AM and PM peak hour cumulative projects traffic volumes at the ten (10) key study intersections are presented in *Figures 6-4* and *6-5*, respectively. *Figures 6-6* and *6-7* present Year 2020 Without Project AM and PM peak hour traffic volumes at the ten (10) key study intersections, respectively. It should be noted that Year 2020 Without Project traffic volumes include ambient traffic growth as well as the traffic from the nine (9) cumulative projects.

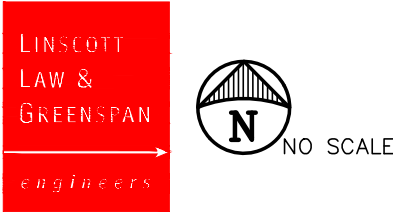
It should be emphasized that because this traffic impact analysis utilizes both an ambient growth factor along with a list of cumulative projects approach to analyze cumulative impacts, this traffic impact analysis is conservative and would tend to overstate cumulative traffic impacts.

6.3 Year 2020 With Project Traffic Volumes

The estimates of Project-generated traffic volumes were added to the Year 2020 Without Project traffic conditions to develop traffic projections for the Year 2020 With Project traffic conditions. *Figures 6-8* and *6-9* present the anticipated AM and PM peak hour Year 2020 With Project traffic volumes, respectively, at the ten (10) key study intersections and four (4) Project driveways.



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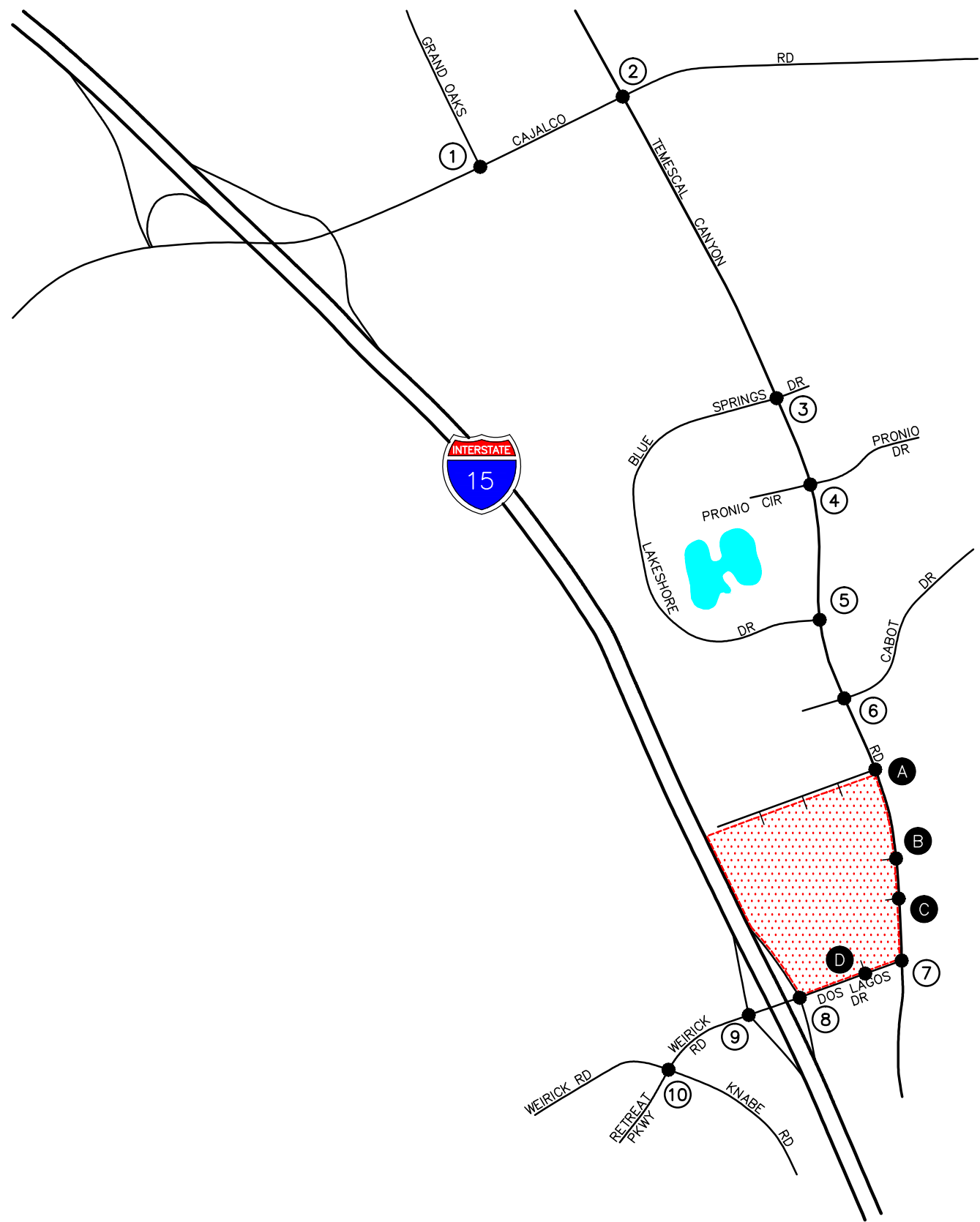
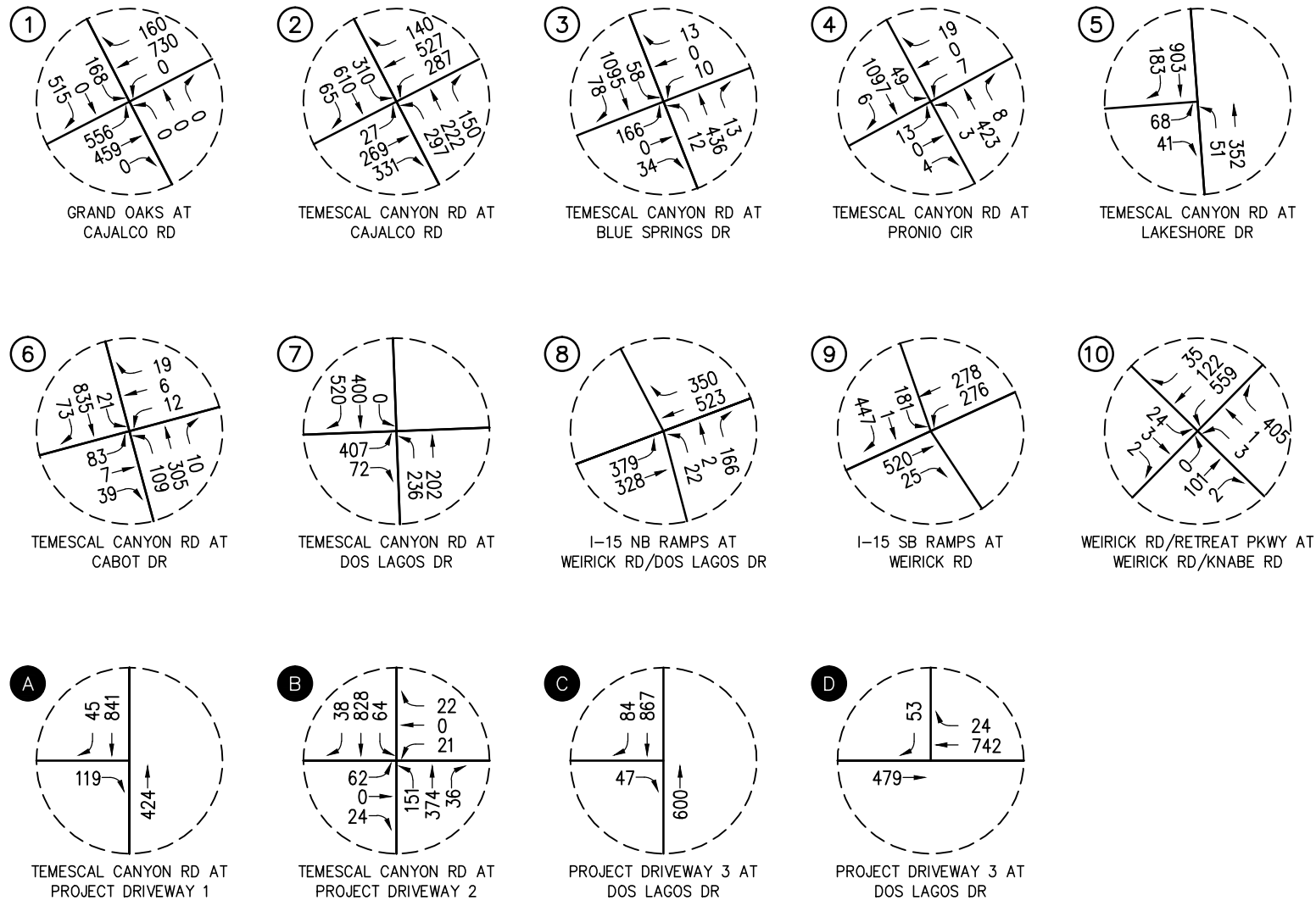
KEY

⊕ = STUDY INTERSECTION

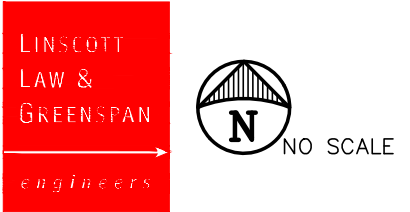
▨ = PROJECT SITE

FIGURE 6-1

EXISTING WITH PROJECT AM PEAK HOUR TRAFFIC VOLUMES
PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



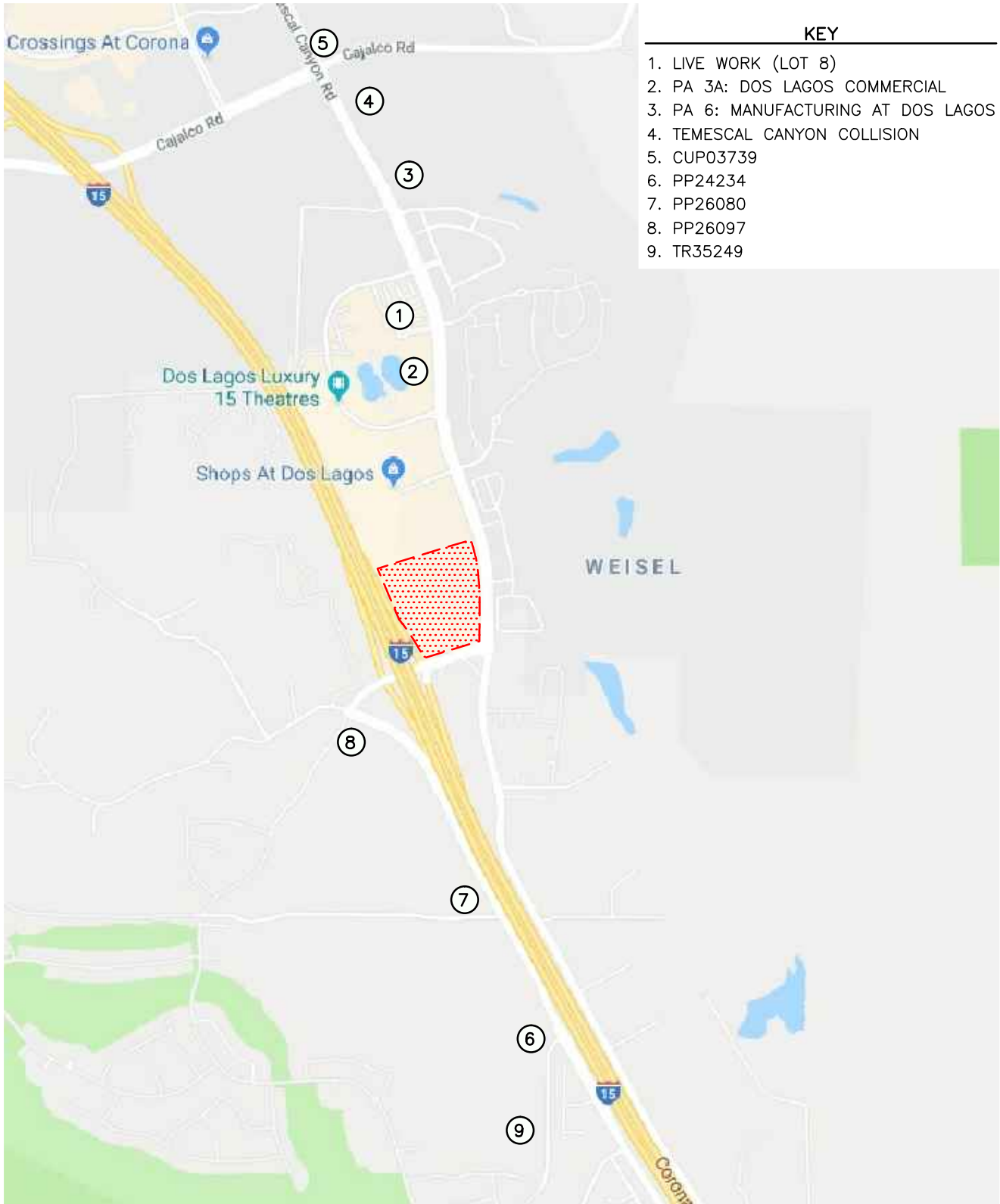
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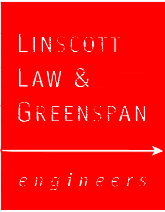
KEY
 (1) = STUDY INTERSECTION
 [Red Hatched Box] = PROJECT SITE

FIGURE 6-2

EXISTING WITH PROJECT PM PEAK HOUR TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



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NO SCALE

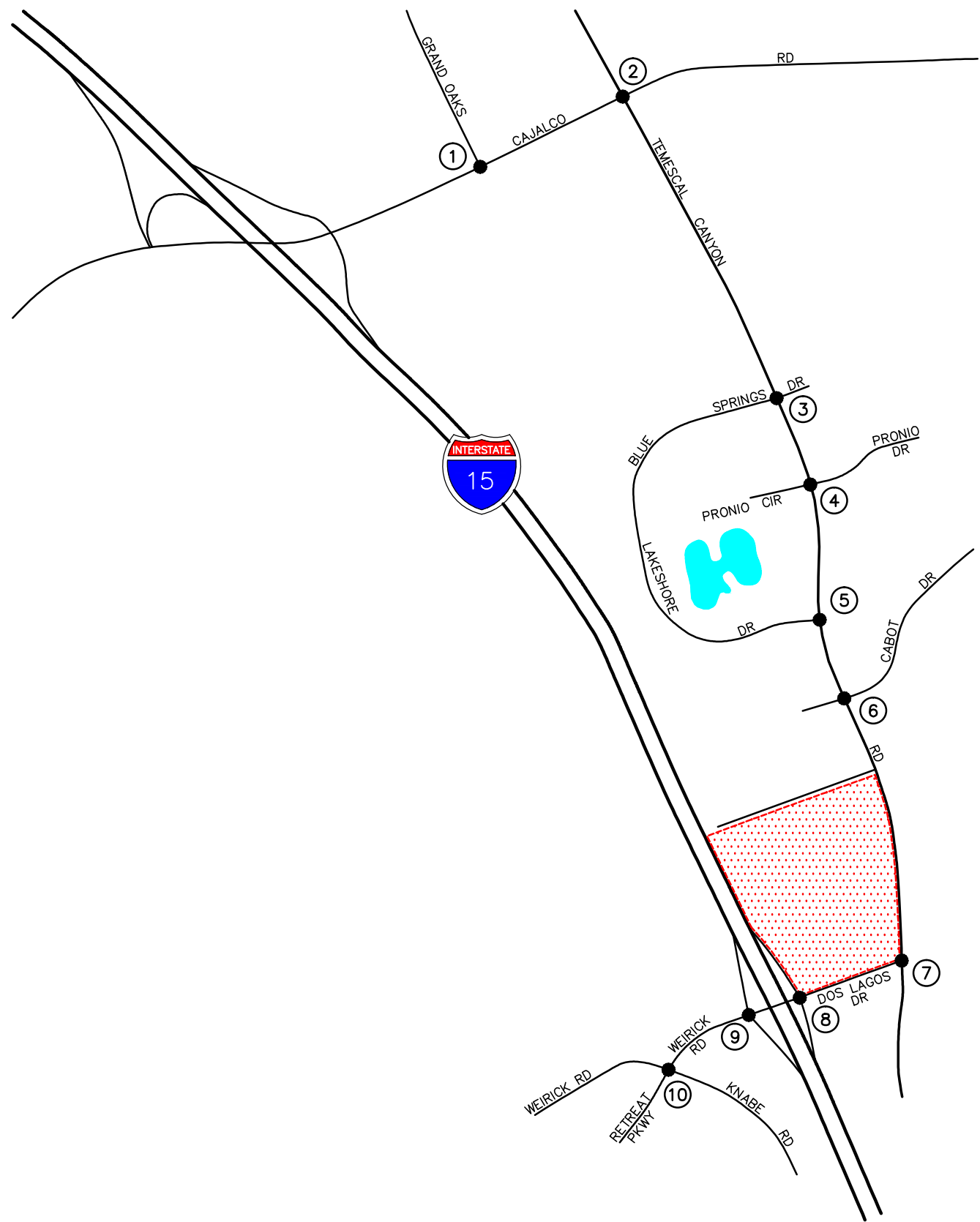
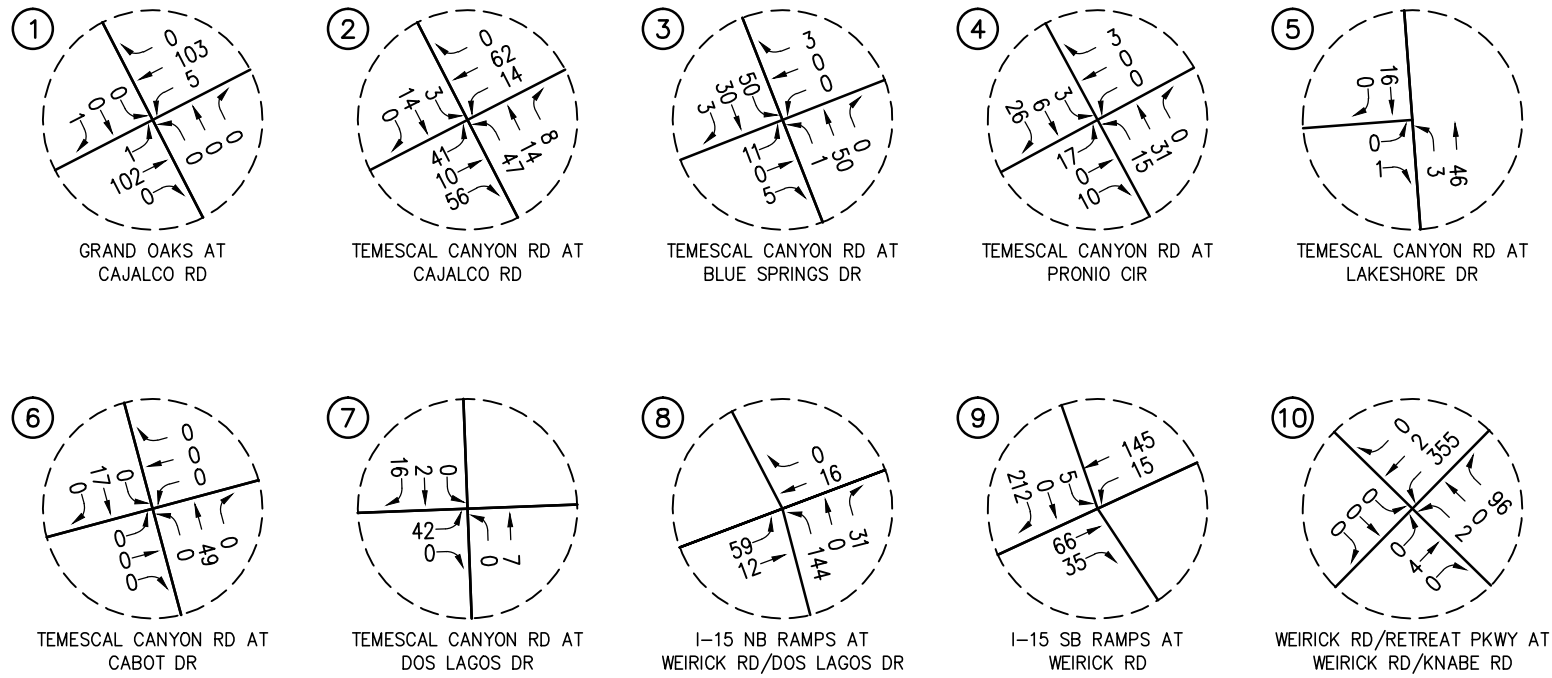
SOURCE: GOOGLE MAPS
KEY

- = CUMULATIVE PROJECT LOCATION
- = PROJECT SITE

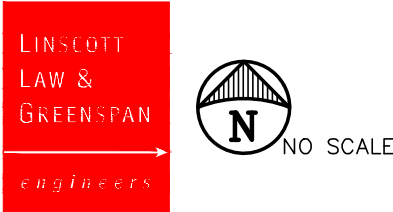
FIGURE 6-3

LOCATION OF CUMULATIVE PROJECTS

PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



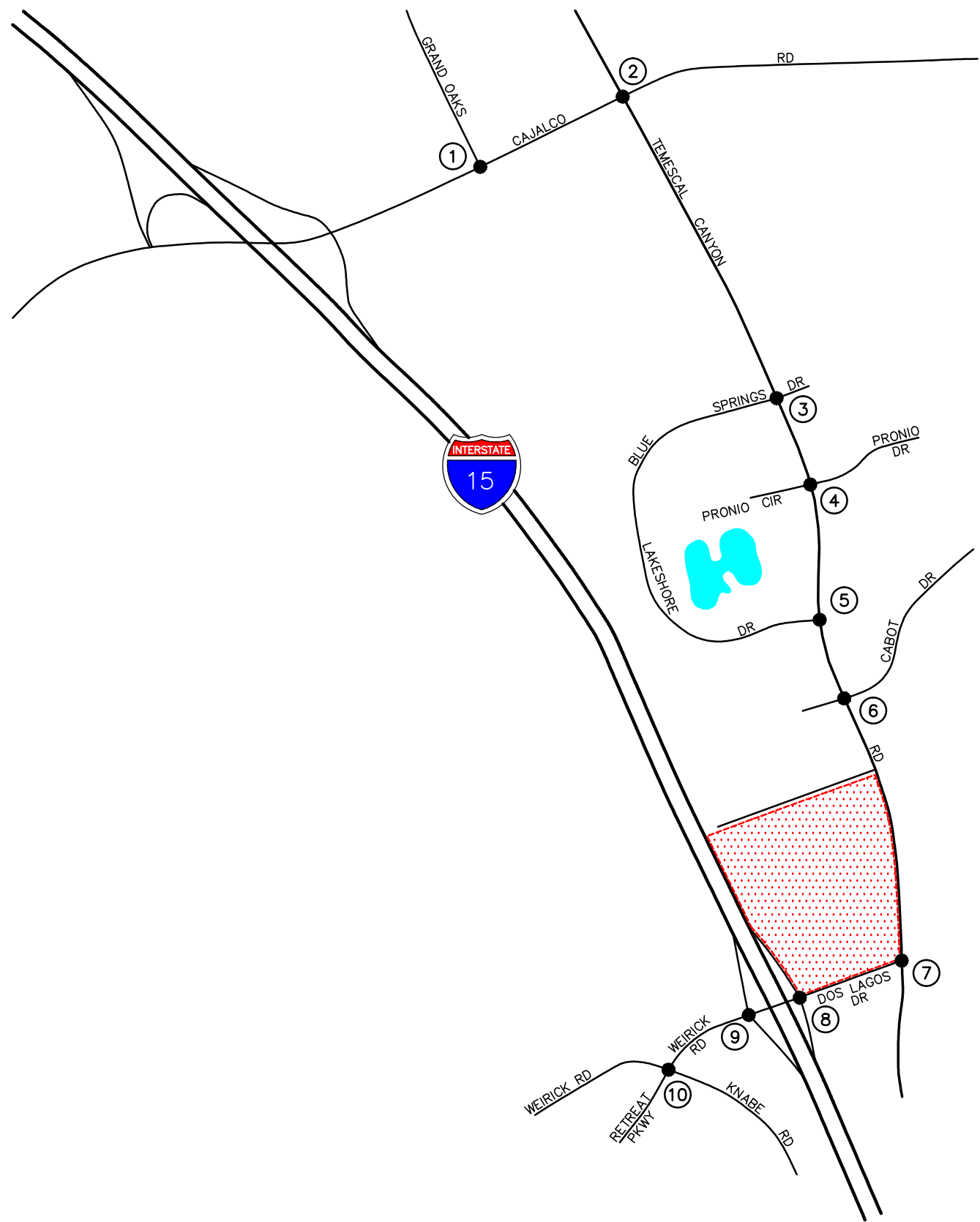
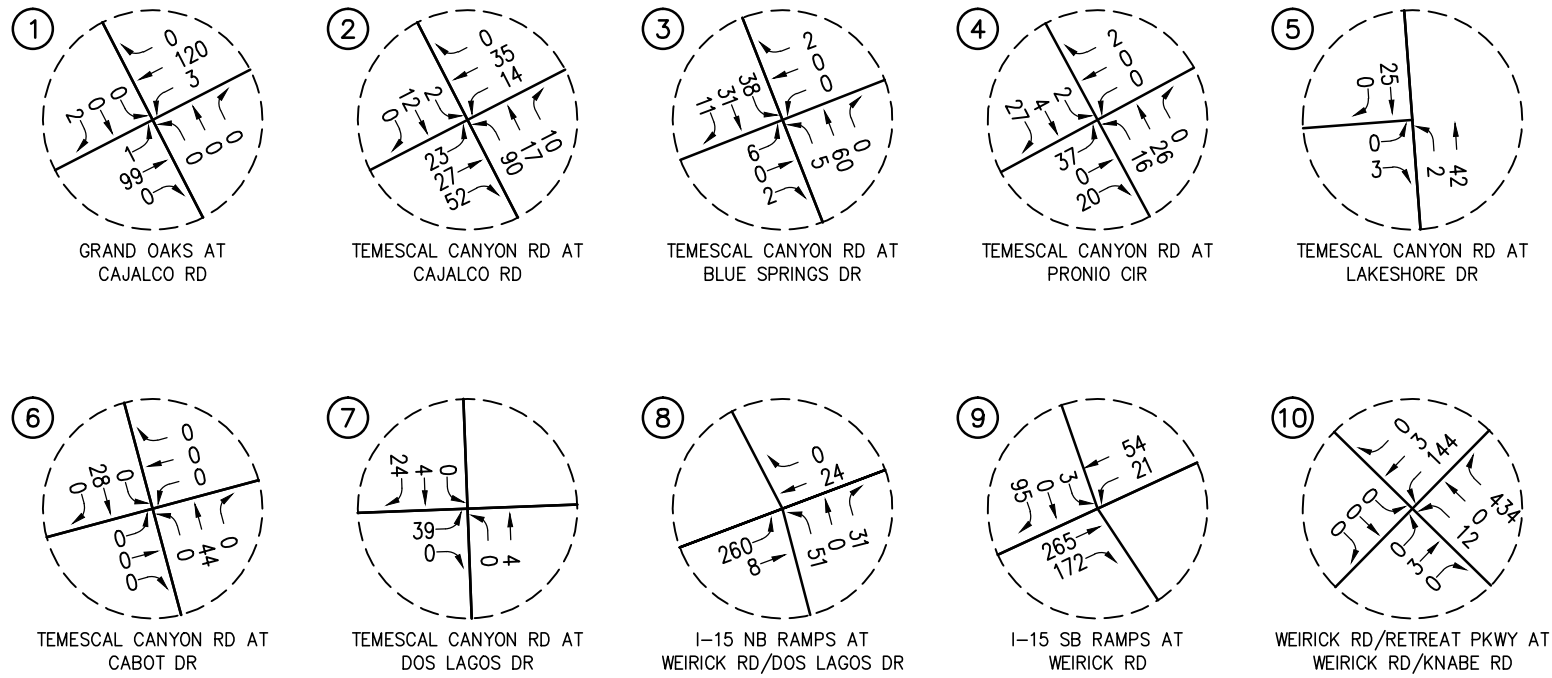
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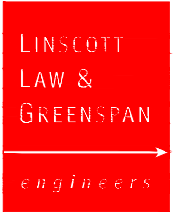
KEY
 # = STUDY INTERSECTION
 [Red Dotted Box] = PROJECT SITE

FIGURE 6-4

CUMULATIVE PROJECTS AM PEAK HOUR TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



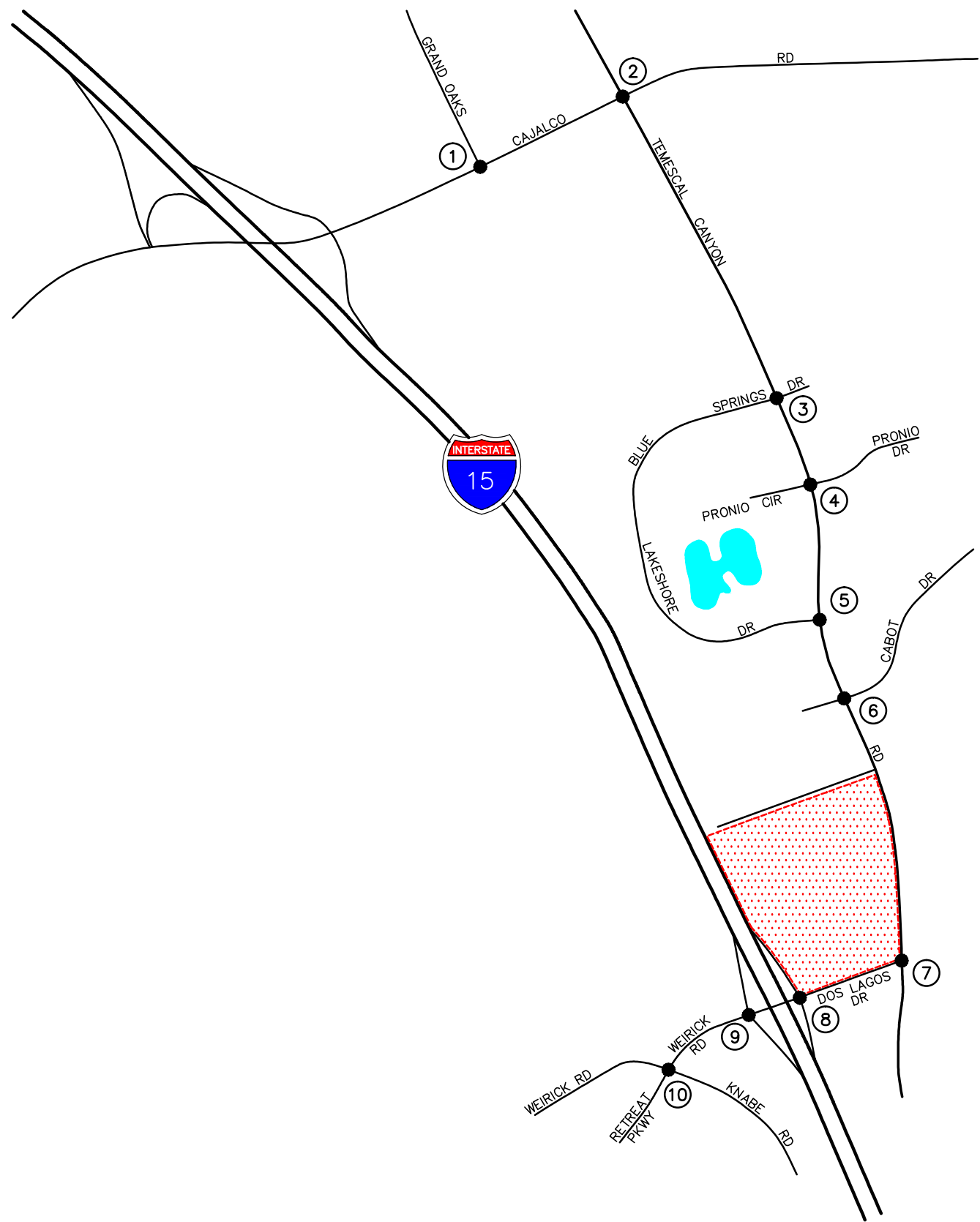
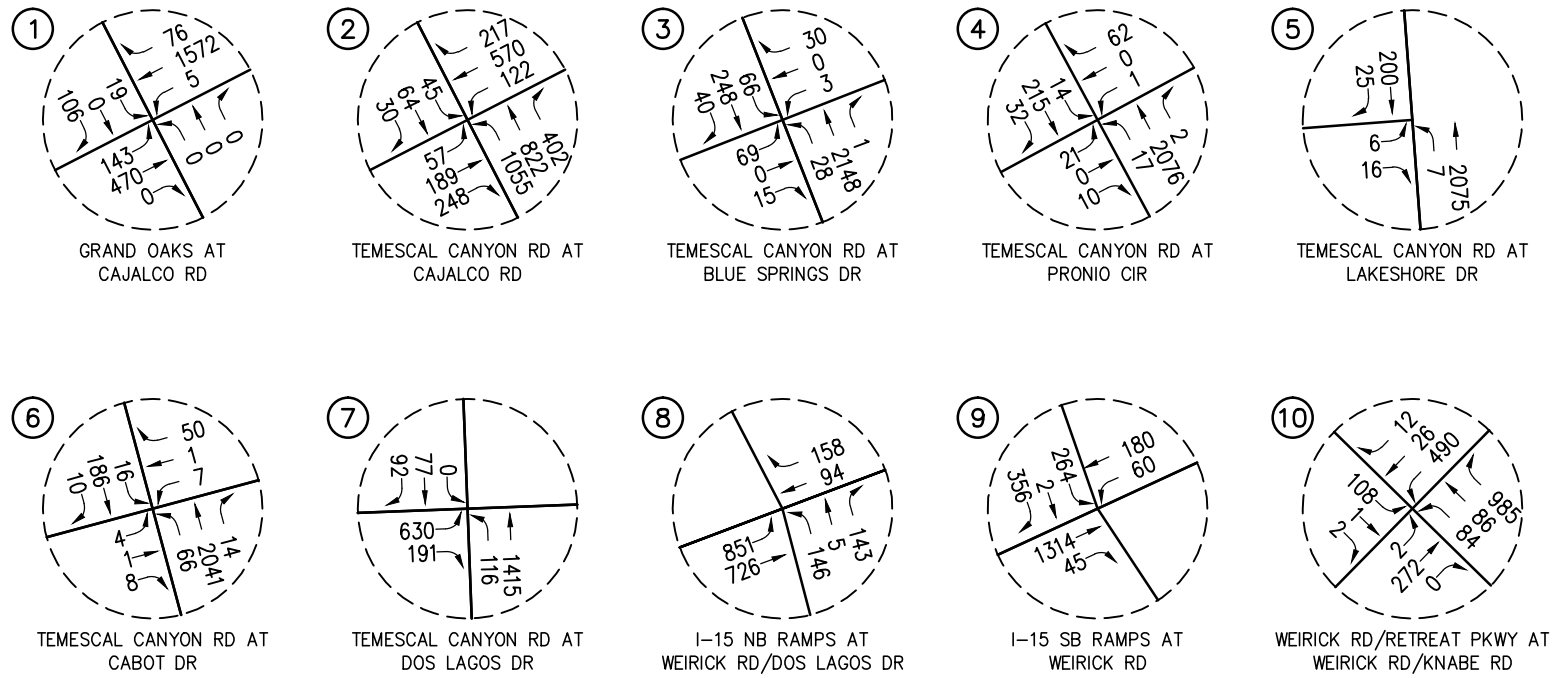
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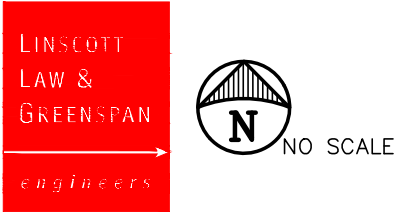
KEY
 # = STUDY INTERSECTION
 [Red Hatched Box] = PROJECT SITE

FIGURE 6-5

CUMULATIVE PROJECTS PM PEAK HOUR TRAFFIC VOLUMES
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



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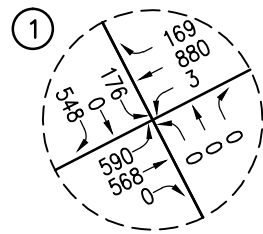
KEY

⊕ = STUDY INTERSECTION

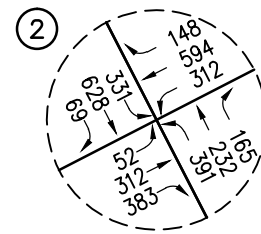
▨ = PROJECT SITE

FIGURE 6-6

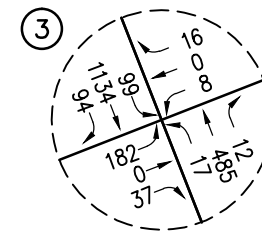
YEAR 2020 WITHOUT PROJECT AM PEAK HOUR TRAFFIC VOLUMES
PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA



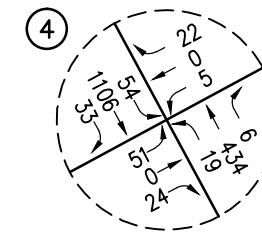
1 GRAND OAKS AT CAJALCO RD



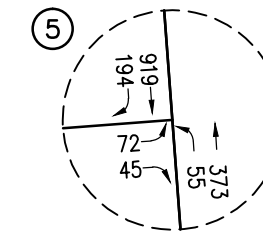
2 TEMESCAL CANYON RD AT CAJALCO RD



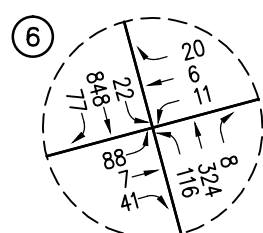
3 TEMESCAL CANYON RD AT BLUE SPRINGS DR



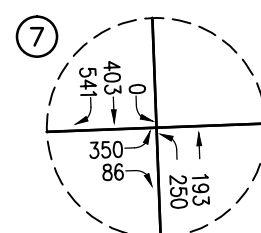
4 TEMESCAL CANYON RD AT PRONIO CIR



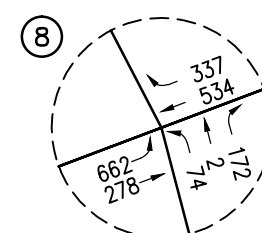
5 TEMESCAL CANYON RD AT LAKESHORE DR



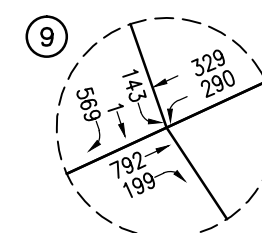
6 TEMESCAL CANYON RD AT CABOT DR



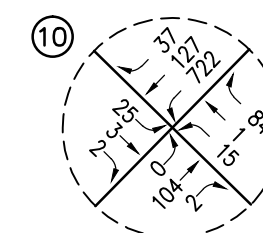
7 TEMESCAL CANYON RD AT DOS LAGOS DR



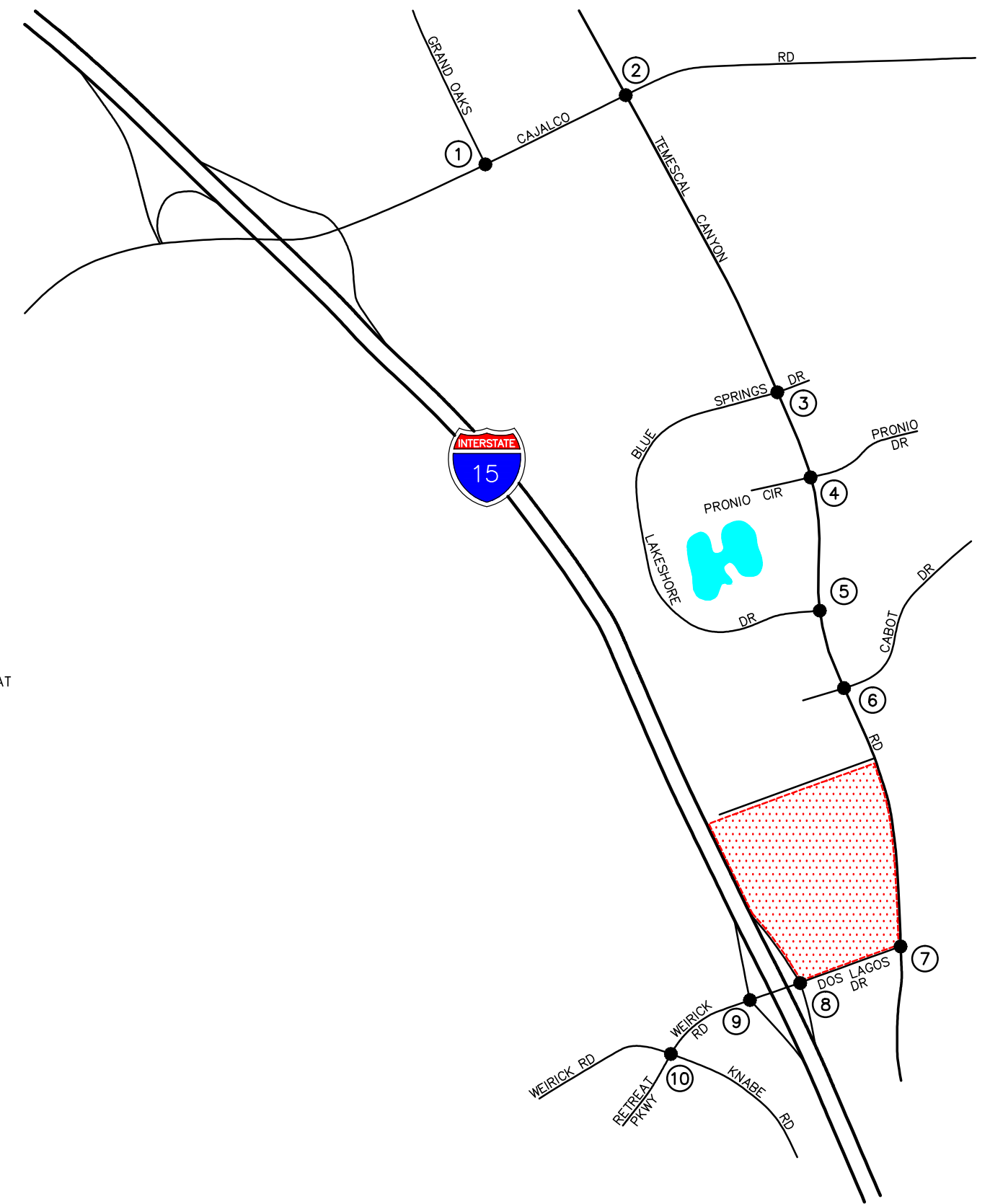
8 I-15 NB RAMPS AT WEIRICK RD/DOS LAGOS DR

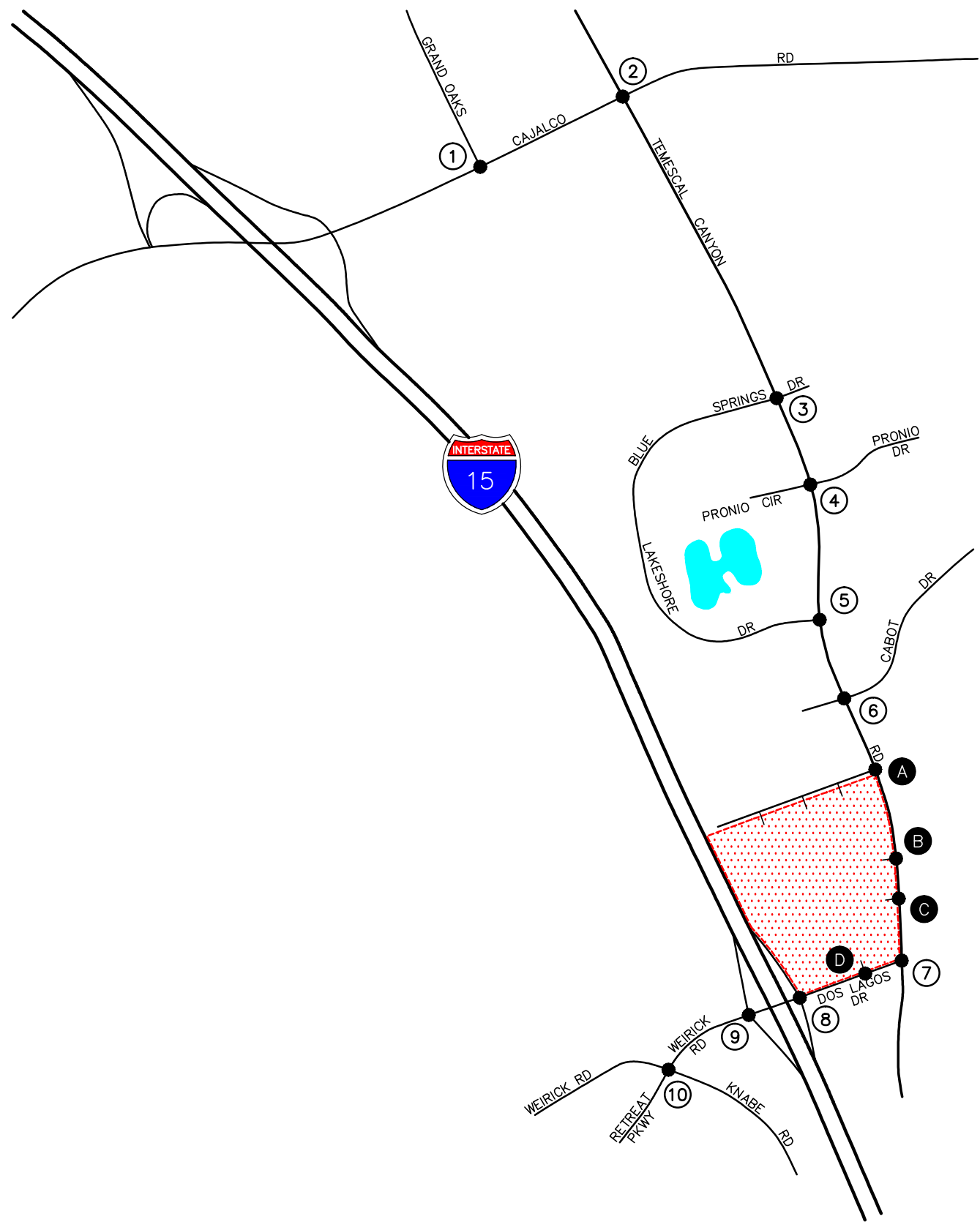
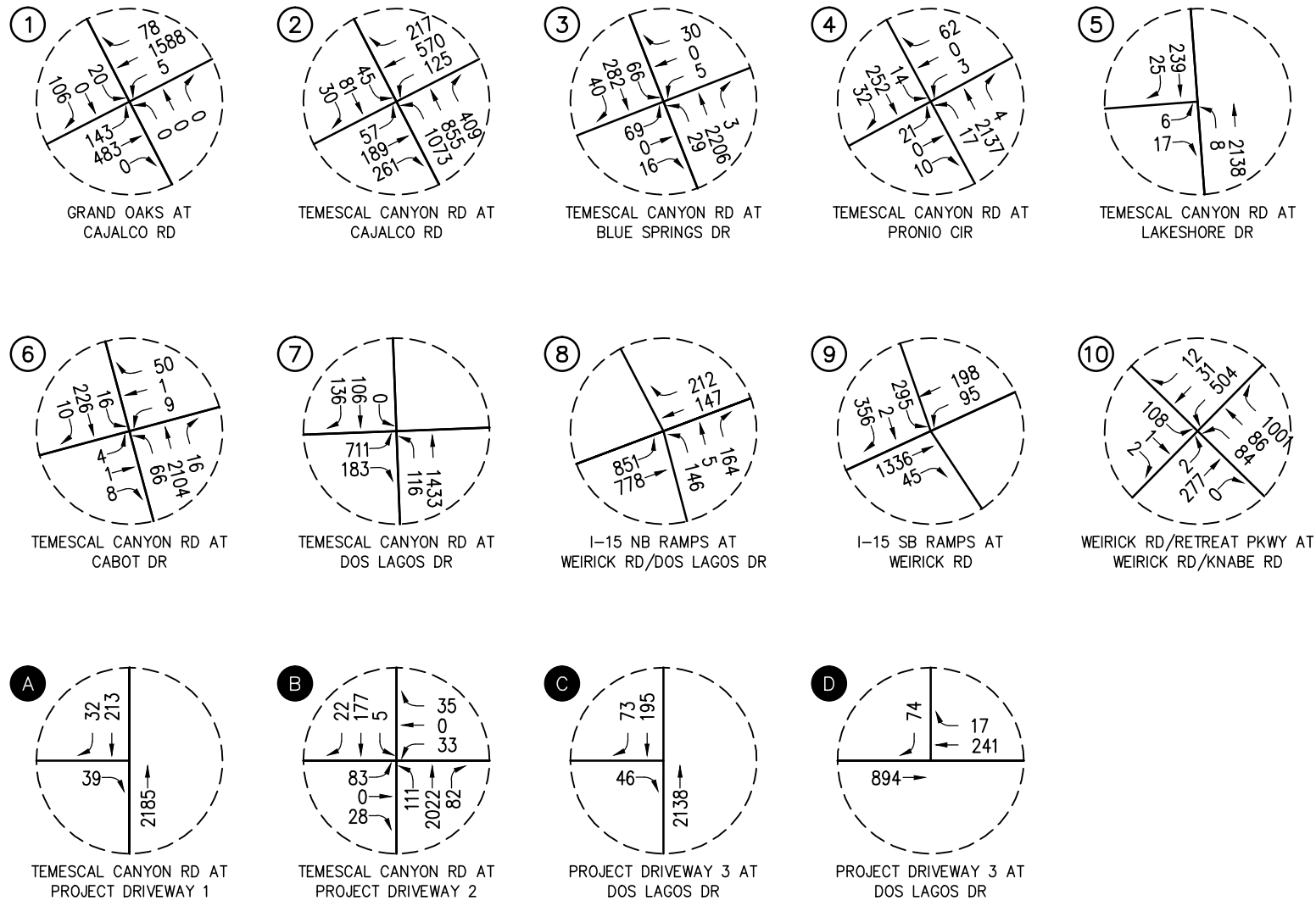


9 I-15 SB RAMPS AT WEIRICK RD

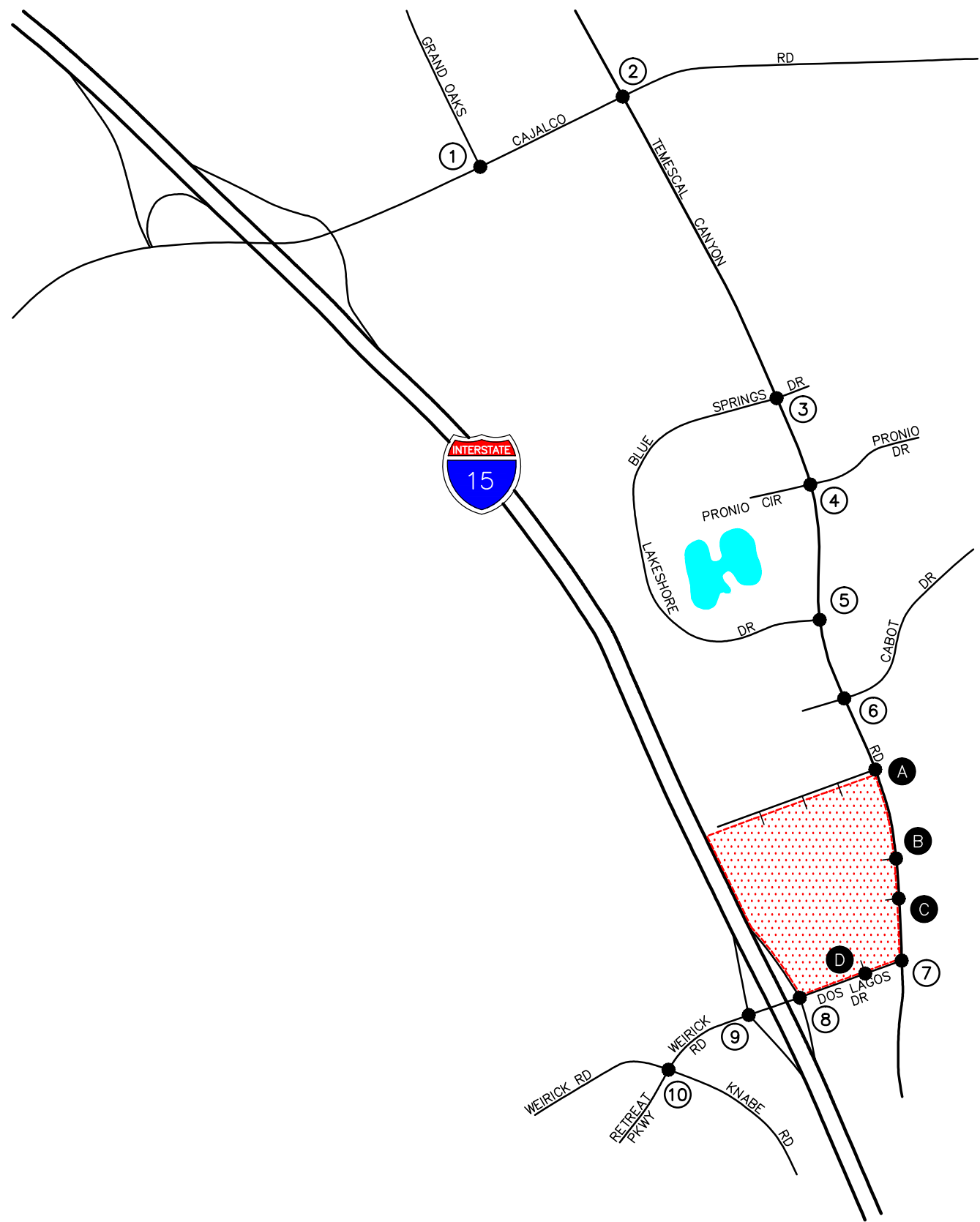
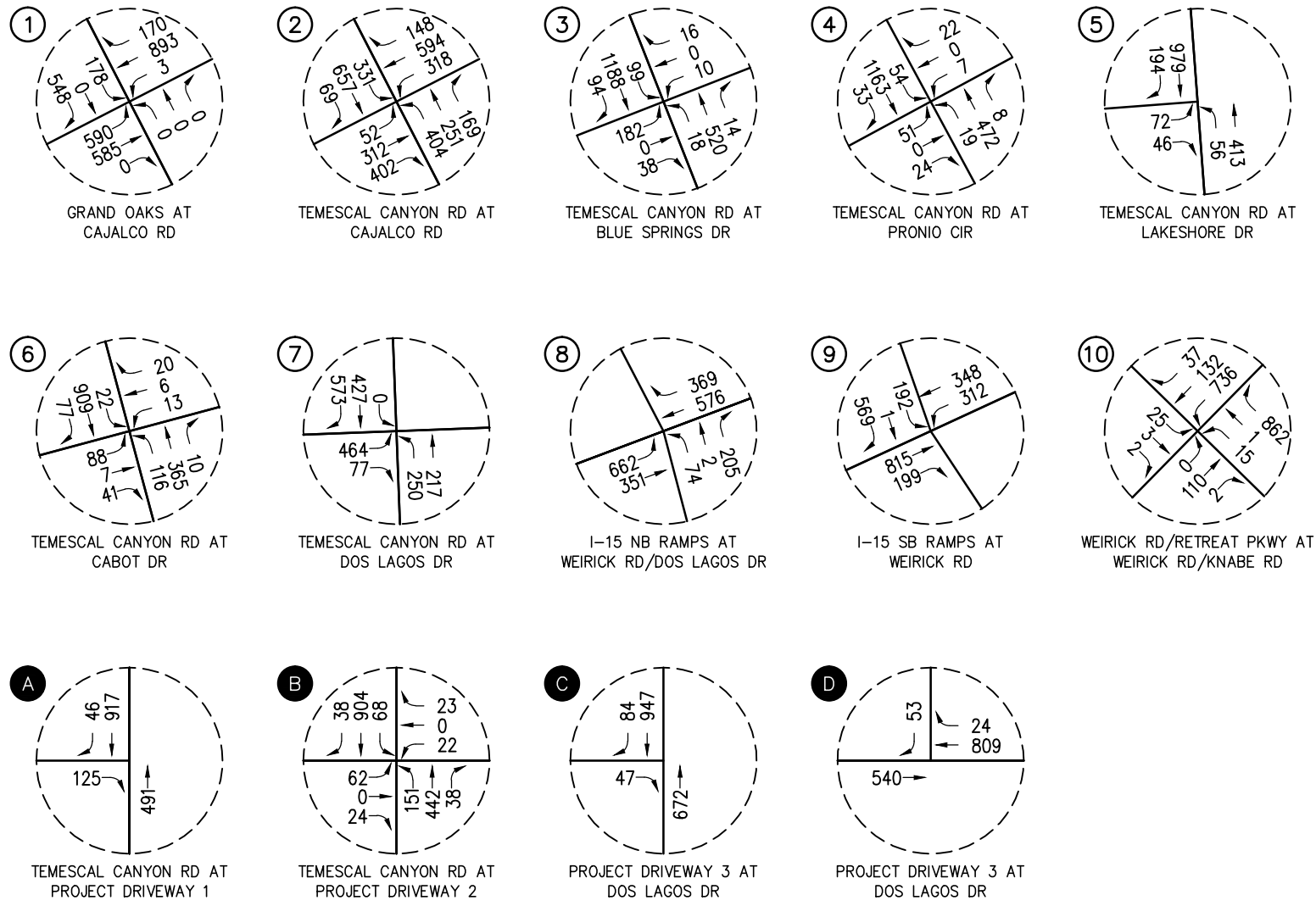


10 WEIRICK RD/RETREAT PKWY AT WEIRICK RD/KNABE RD





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n:\3200\2123291 - rexco dos lagos, corona\planning area 1 - terrano\dwg\3291 f6-9.dwg LDP 08:48:02 05-15-2018 besa

TABLE 6-1
DESCRIPTION OF CUMULATIVE PROJECTS

No.	Cumulative Project	Location/Address	Description
1.	Live Work (Lot 8)	Dos Lagos	75 DU Apartment
2.	PA 3A: Dos Lagos Commercial ⁷	South of Pronio Circle, West of Temescal Canyon Road	17,164 SF Office, 4,735 SF Commercial
3.	PA 6: Manufacturing at Dos Lagos ⁸	East of Temescal Canyon Road, Between Cajalco Road and Breezy Meadow Lane	67,737 SF Manufacturing
4.	Temescal Canyon Collision	East of Temescal Canyon Road, South of Cajalco Road	25,038 SF High End Auto Collision Repair Facility
5.	CUP03739	Northeast corner of Temescal Canyon Road at Cajalco Road	10 Fueling Positions Gas Station With Convenience Market and Car Wash
6.	PP24234	Northwest of Knabe Road at Forest Boundary Road	77,231 SF Industrial
7.	PP26080	Northwest corner of Knabe Road at Bedford Motor Way	140,000 SF Industrial
8.	PP26097	South corner of Retreat Parkway at Knabe Road	94,000 SF Medical Outpatient Clinic
9.	TR35249	22395 Forest Boundary Road	51 DU Single Family Detached

Notes:

- DU = Dwelling Units
- SF = Square-Feet

⁷ Source: *PA 3A Dos Lagos Commercial Office Focused Site Traffic Impact Analysis Report*, prepared by LLG Engineers, dated September 16, 2014.

⁸ Source: *PA6 – Manufacturing Focused Site Traffic Impact Analysis Report*, prepared by LLG Engineers, dated June 13, 2016.

**TABLE 6-2
CUMULATIVE PROJECTS TRIP GENERATION FORECAST⁹**

Cumulative Project Description		Daily 2-Way	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
1.	Live Work (Lot 8)	499	8	30	38	31	16	47
2.	PA 3A: Dos Lagos Commercial ¹⁰	890	37	12	49	28	49	77
3.	PA 6: Manufacturing at Dos Lagos ¹¹	283	40	16	56	20	32	52
4.	Temescal Canyon Collision	779	37	19	56	37	41	78
5.	CUP03739	1,375	54	52	106	31	30	61
6.	PP24234	538	62	9	71	9	66	75
7.	PP26080	976	114	15	129	16	120	136
8.	PP26097	3,396	178	47	225	94	242	336
9.	TR35249	486	10	28	38	32	19	51
Cumulative Projects Total Trip Generation Potential		9,222	540	228	768	298	615	913

⁹ Source: *Trip Generation, 9th Edition*, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2012)]. Average rates used.

¹⁰ Source: *PA 3A Dos Lagos Commercial Office Focused Site Traffic Impact Analysis Report*, prepared by LLG Engineers, dated September 16, 2014.

¹¹ Source: *PA6 – Manufacturing Focused Site Traffic Impact Analysis Report*, prepared by LLG Engineers, dated June 13, 2016.

7.0 EXISTING CONDITIONS TRAFFIC IMPACT ANALYSIS

The existing conditions analysis establishes the basis for the future forecasts for the Project. This analysis is based on existing intersection counts collected in October 2017. The existing conditions analysis reflects these counts as well as existing lane configurations for all analyzed intersections.

7.1 Existing Conditions Intersection Capacity Analysis

Table 7-1 summarizes the peak hour Level of Service results at the key study intersections for existing traffic conditions, with and without the Project. The first column (1) of Delay/LOS values in *Table 7-1* presents a summary of Existing AM and PM peak hour traffic conditions. The second column (2) in *Table 7-1* presents forecast Existing With Project traffic conditions. The third column (3) of *Table 7-1* shows whether the traffic associated with the Project will have a significant impact based on the LOS standards and the significance impact criteria defined in this report. The fourth column (4) of *Table 7-1* presents the Level of Service with the implementation of traffic mitigation improvements, if necessary.

7.1.1 Existing Traffic Conditions

Review of column (1) of *Table 7-1* indicates that for the Existing traffic conditions, all ten (10) existing key study intersections currently operate at acceptable levels of service (LOS D or better) during the AM and PM peak hours when compared to the LOS standards defined in this report.

7.1.2 Existing With Project Traffic Conditions

Review of column (2) of *Table 7-1* indicates that for the Existing With Project traffic conditions, all ten (10) key study intersections are forecast to operate at acceptable levels of service (LOS D or better) during the AM and PM peak hours when compared to the LOS standards defined in this report.

Review of column (3) of *Table 7-1* indicates that none of the ten (10) key study intersections will be significantly impacted based on the LOS criteria defined in this report for the Existing With Project traffic conditions.

Appendix D contains the Delay/LOS calculation worksheets for the Existing Traffic Conditions.

TABLE 7-1
EXISTING CONDITIONS PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY¹²

Key Intersection	Control Type	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Existing With Project Traffic Conditions		(3) Significant Impact	(4) Existing With Project With Mitigation	
				Delay (s/v)	LOS	Delay (s/v)	LOS	Yes/No	Delay (s/v)	LOS
1. Grand Oaks at Cajalco Road	6Ø Traffic Signal	D	AM	10.9	B	10.9	B	No	--	--
			PM	28.1	C	28.0	C	No	--	--
2. Temescal Canyon Road at Cajalco Road	8Ø Traffic Signal	D	AM	43.7	D	45.6	D	No	--	--
			PM	50.1	D	51.3	D	No	--	--
3. Temescal Canyon Road at Blue Springs Drive	6Ø Traffic Signal	D	AM	13.1	B	13.8	B	No	--	--
			PM	12.4	B	12.5	B	No	--	--
4. Temescal Canyon Road at Pronio Circle	5Ø Traffic Signal	D	AM	7.3	A	7.6	A	No	--	--
			PM	5.1	A	5.1	A	No	--	--
5. Temescal Canyon Road at Lakeshore Drive	3Ø Traffic Signal	D	AM	3.2	A	3.4	A	No	--	--
			PM	7.7	A	7.7	A	No	--	--
6. Temescal Canyon Road at Cabot Drive	6Ø Traffic Signal	D	AM	12.7	B	13.1	B	No	--	--
			PM	14.6	B	14.4	B	No	--	--
7. Temescal Canyon Road at Dos Lagos Drive	3Ø Traffic Signal	D	AM	17.7	B	18.8	B	No	--	--
			PM	26.9	C	27.9	C	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions
- **Bold Delay/LOS values** indicate adverse service levels based on the LOS standards mentioned in this report

¹² Appendix D contains the Delay/LOS calculation worksheets for all study intersections.

TABLE 7-1 (CONTINUED)
EXISTING CONDITIONS PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY¹³

Key Intersection	Control Type	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Existing With Project Traffic Conditions		(3) Significant Impact	(4) Existing With Project With Mitigation	
				Delay (s/v)	LOS	Delay (s/v)	LOS	Yes/No	Delay (s/v)	LOS
8. I-15 Northbound Ramps at Weirick Road/Dos Lagos Drive	3Ø Traffic Signal	D	AM	19.6	B	19.2	B	No	--	--
			PM	17.7	B	17.5	B	No	--	--
9. I-15 Southbound Ramps at Weirick Road	3Ø Traffic Signal	D	AM	17.3	B	19.4	B	No	--	--
			PM	25.0	C	25.4	C	No	--	--
10. Weirick Road/Retreat Parkway at Weirick Road/Knabe Road	8Ø Traffic Signal	D	AM	33.4	C	34.7	C	No	--	--
			PM	36.1	D	35.7	D	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions
- **Bold Delay/LOS values** indicate adverse service levels based on the LOS standards mentioned in this report

¹³ Appendix D contains the Delay/LOS calculation worksheets for all study intersections.

8.0 YEAR 2020 CONDITIONS TRAFFIC IMPACT ANALYSIS

The relative impacts of the added Project traffic volumes generated by proposed Project during the AM and PM peak hour conditions was evaluated based on analysis of future Year 2020 operating conditions at the ten (10) key study intersections, with and without the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future Delay and service level characteristics at each study intersection. The significance of the potential impacts of the Project at each key intersection was then evaluated using the traffic impact criteria mentioned in this report.

8.1 Year 2020 Conditions Intersection Capacity Analysis

Table 8-1 summarizes the AM and PM peak hour Level of Service results at the key study intersections for the Year 2020 traffic conditions. The first column (1) of Delay/LOS values in *Table 8-1* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 7-1*). The second column (2) presents forecast Year 2020 Without Project traffic conditions and the third column (3) identifies forecast Year 2020 With Project traffic conditions. The fourth column (4) indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria mentioned in this report. The fifth column (5) presents the resultant level of service with the inclusion of recommended traffic improvements, where needed, to achieve an acceptable level of service.

8.1.1 Year 2020 Without Project Traffic Conditions

Review of column (2) of *Table 8-1* indicates that for the Year 2020 Without Project traffic conditions, one (1) of the ten (10) key study intersections is forecast to operate at an unacceptable level of service during the AM and PM peak hours when compared to the LOS standards defined in this report. This intersection, reported below, is forecast to continue to operate at an adverse level of service during the peak hours indicated:

<u>Key Intersection</u>	<u>AM Peak Hour</u>		<u>PM Peak Hour</u>	
	<u>Delay (s/v)</u>	<u>LOS</u>	<u>Delay (s/v)</u>	<u>LOS</u>
2. Temescal Canyon Road at Cajalco Road	63.4	E	62.8	E

The remaining nine (9) key study intersections are forecast to operate at acceptable levels of service during the AM and PM peak hours.

8.1.2 Year 2020 With Project Traffic Conditions

Review of column (3) of *Table 8-1* indicates that for the Year 2020 With Project traffic conditions, one (1) of the ten (10) key study intersections is forecast to operate at an unacceptable level of service during the AM and PM peak hours when compared to the LOS standards defined in this report. This intersection, reported below, is forecast to continue to operate at an adverse level of service during the peak hours indicated:

<u>Key Intersection</u>	<u>AM Peak Hour</u>		<u>PM Peak Hour</u>	
	<u>Delay (s/v)</u>	<u>LOS</u>	<u>Delay (s/v)</u>	<u>LOS</u>
2. Temescal Canyon Road at Cajalco Road	66.0	E	66.2	E

The remaining nine (9) key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak hours.

Review of column (4) of *Table 8-1* indicates that one (1) of the ten (10) key study intersections will be significantly impacted based on the LOS criteria defined in this report for the Year 2020 With Project traffic conditions. However, as shown in column (5) of *Table 8-1*, the implementation of the recommended improvements will offset the Project impacts and return the operating condition of the intersection to an acceptable level of service. The remaining key study intersections are projected to operate at acceptable service.

Appendix E contains the Delay/LOS calculation worksheets for the Year 2020 Traffic Conditions.

TABLE 8-1
YEAR 2020 CONDITIONS PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY¹⁴

Key Intersection	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Year 2020 Without Project Traffic Conditions		(3) Year 2020 With Project Traffic Conditions		(4) Significant Impact Yes/No	(5) Year 2020 With Project With Mitigation	
			Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (s/v)	LOS		Delay (s/v)	LOS
1. Grand Oaks at Cajalco Road	D	AM	10.9	B	11.0	B	11.0	B	No	--	--
		PM	28.1	C	28.1	C	28.1	C	No	--	--
2. Temescal Canyon Road at Cajalco Road	D	AM	43.7	D	63.4	E	66.0	E	Yes	39.6	D
		PM	50.1	D	62.8	E	66.2	E	Yes	54.8	D
3. Temescal Canyon Road at Blue Springs Drive	D	AM	13.1	B	19.9	B	21.2	C	No	--	--
		PM	12.4	B	14.0	B	14.1	B	No	--	--
4. Temescal Canyon Road at Pronio Circle	D	AM	7.3	A	9.4	A	9.8	A	No	--	--
		PM	5.1	A	7.9	A	7.9	A	No	--	--
5. Temescal Canyon Road at Lakeshore Drive	D	AM	3.2	A	3.8	A	4.0	A	No	--	--
		PM	7.7	A	7.7	A	7.8	A	No	--	--
6. Temescal Canyon Road at Cabot Drive	D	AM	12.7	B	14.5	B	15.1	B	No	--	--
		PM	14.6	B	14.6	B	14.4	B	No	--	--
7. Temescal Canyon Road at Dos Lagos Drive	D	AM	17.7	B	18.7	B	19.5	B	No	--	--
		PM	26.9	C	28.7	C	29.7	C	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions
- **Bold Delay/LOS values** indicate adverse service levels based on the LOS standards mentioned in this report

¹⁴ Appendix E contains the Delay/LOS calculation worksheets for all study intersections.

TABLE 8-1 (CONTINUED)
YEAR 2020 CONDITIONS PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY¹⁵

Key Intersection	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Year 2020 Without Project Traffic Conditions		(3) Year 2020 With Project Traffic Conditions		(4) Significant Impact Yes/No	(5) Year 2020 With Project With Mitigation	
			Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (s/v)	LOS		Delay (s/v)	LOS
			8.	D	AM	19.6	B	22.0		C	21.7
	PM	17.7	B		22.2	C	21.8	C	No	--	--
9.	D	AM	17.3	B	19.5	B	21.2	C	No	--	--
		PM	25.0	C	25.4	C	27.0	C	No	--	--
10.	D	AM	33.4	C	36.0	D	35.8	D	No	--	--
		PM	36.1	D	37.3	D	39.3	D	No	--	--

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions
- **Bold Delay/LOS values** indicate adverse service levels based on the LOS standards mentioned in this report

¹⁵ Appendix E contains the Delay/LOS calculation worksheets for all study intersections.

9.0 RECOMMENDED IMPROVEMENTS

For those intersections where projected traffic volumes are expected to result in unacceptable operating conditions, this report recommends improvement measures that change the intersection geometry to increase capacity. These capacity improvements may involve roadway widening and/or re-striping to reconfigure specific approaches of a key intersection. The identified improvements are expected to:

- mitigate the impact of existing traffic, Project traffic and future non-Project (ambient traffic growth and cumulative projects) traffic and
- improve Levels of Service to an acceptable range and/or to pre-Project conditions.

9.1 Existing With Project Traffic Conditions

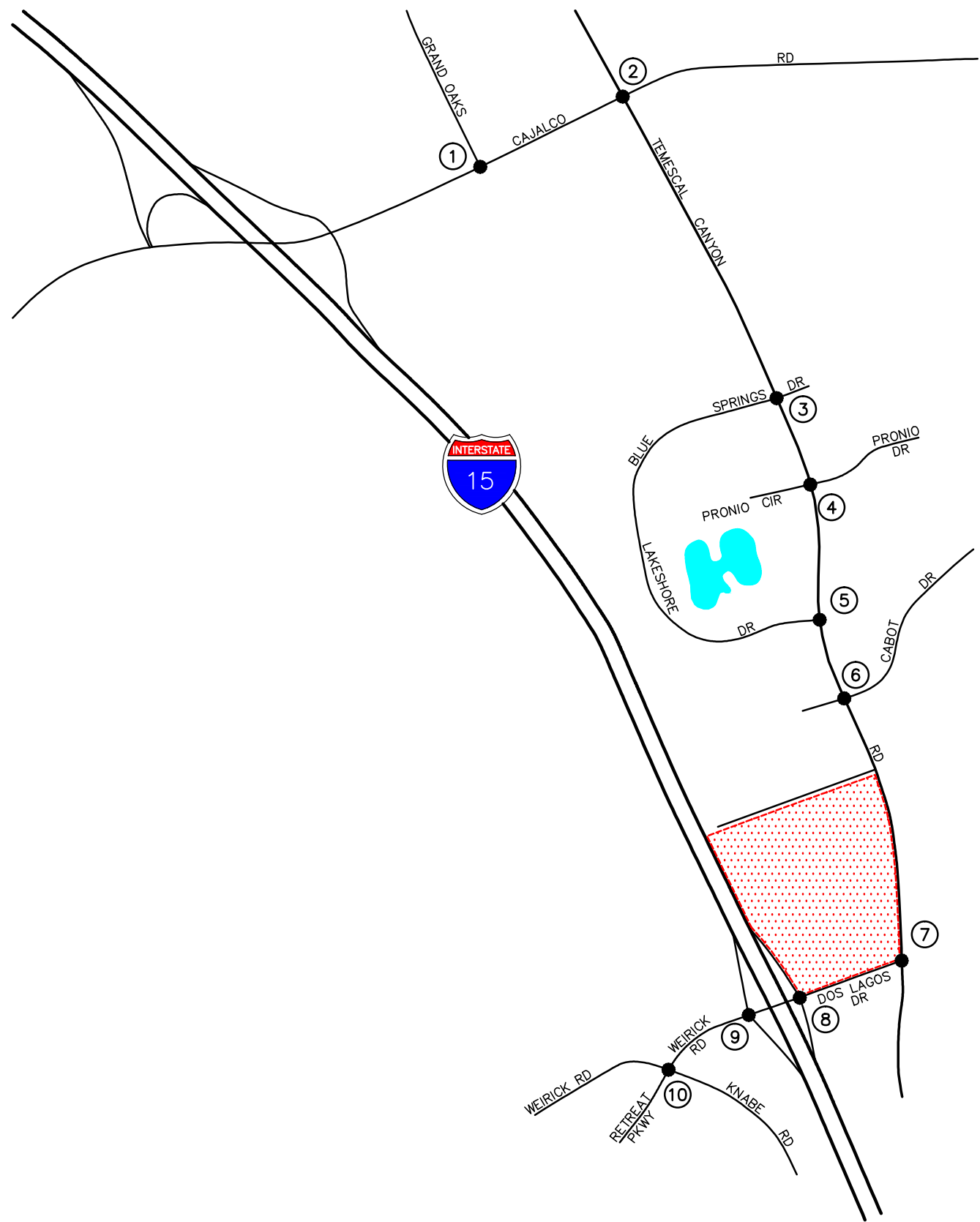
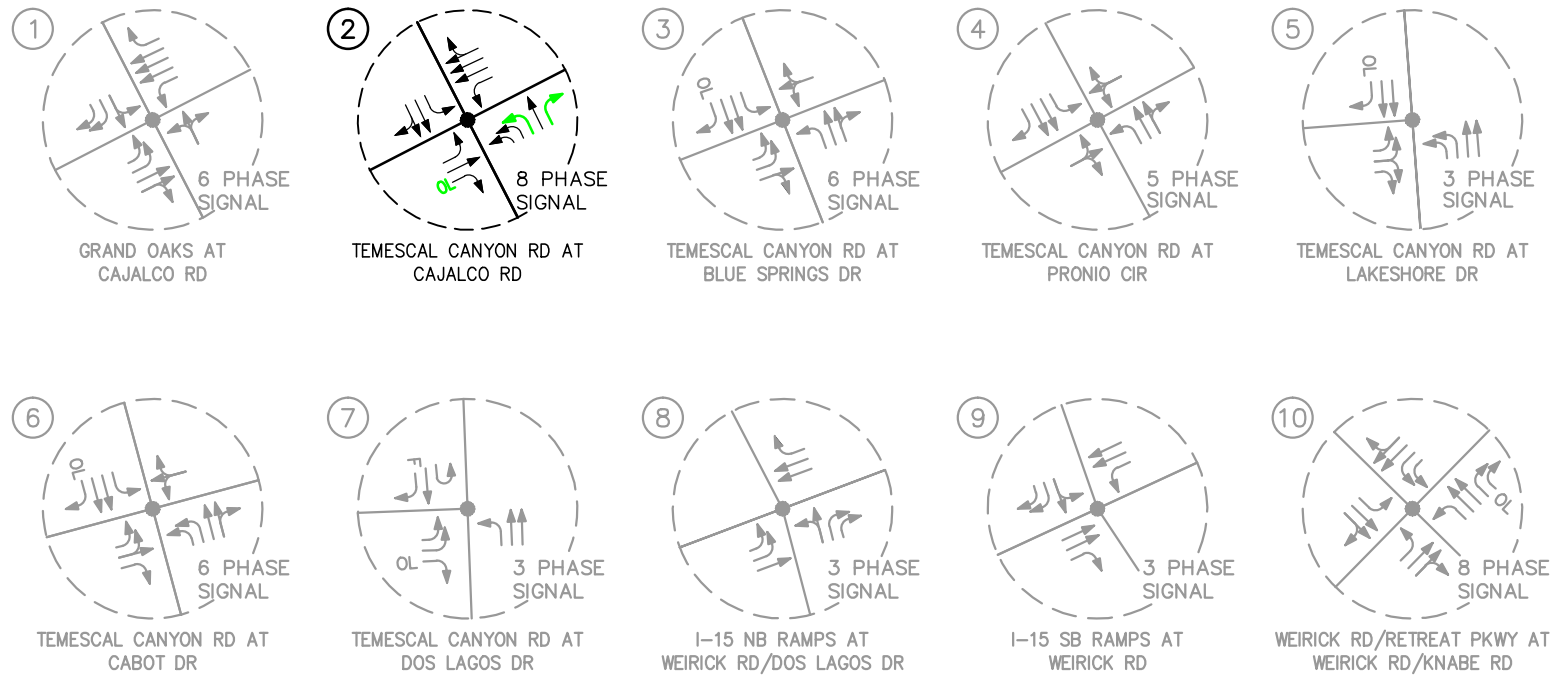
The results of the Existing With Project intersection capacity analysis presented previously in *Table 7-1* indicate that the proposed Project will not impact any of the key study intersections. As such, no improvements are recommended for the Existing With Project traffic conditions.

9.2 Year 2020 With Project Traffic Conditions

The results of the Year 2020 With Project intersection capacity analysis presented previously in *Table 8-1* indicate that the proposed Project will impact one (1) of the key study intersections. The following improvements listed below have been identified to mitigate the traffic impacts at the intersection impacted by Project traffic:

- Temescal Canyon Road at Cajalco Road: Restripe the northbound approach to provide a third exclusive northbound left-turn lane and restripe the shared northbound through/right-turn lane to an exclusive northbound right-turn lane. Install eastbound right-turn overlap traffic signal phasing that will yield to northbound U-turn movements.

Figure 9-1 presents the recommended improvements at the key study intersections for the Year 2020 With Project traffic conditions.



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KEY

- ← = APPROACH LANE ASSIGNMENT
- = YEAR 2020 WITH PROJECT RECOMMENDED IMPROVEMENTS
- = TRAFFIC SIGNAL
- OL = OVERLAP, F = FREE RIGHT-TURN

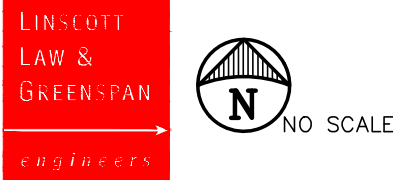


FIGURE 9-1

YEAR 2020 WITH PROJECT RECOMMENDED IMPROVEMENTS
 PLANNING AREA 1 (TERRANO AT DOS LAGOS), CORONA

10.0 PROJECT FAIR SHARE ANALYSIS

The transportation impacts associated with the development of the proposed Project were determined based on the future conditions analysis with and without the proposed Project. The key study locations forecast to operate at adverse levels of service are discussed below. As such, the proposed Project's "fair-share" of the recommended traffic improvements has been calculated for the key study locations that are forecast to operate at adverse levels of service in the Year 2020 traffic conditions.

10.1 Existing With Project Traffic Conditions

None of the ten (10) key study intersections are forecast to have a significant impact under Existing With Project traffic conditions when compared to the LOS criteria defined in this report. Thus, no mitigation measures are necessary.

10.2 Year 2020 With Project Traffic Conditions

Table 10-1 presents the AM and PM peak hour Project fair share percentage at the key study intersections that are forecast to operate at adverse levels of service in the Year 2020 With Project traffic conditions. As presented in *Table 10-1*, the first column (1) presents the increase in intersection delay due to Project traffic only. The second column (2) presents the total intersection delay of the intersection. The third column (3) presents the acceptable LOS delay as defined in *Chapter 19 of the Highway Capacity Manual 6*. The fourth column (4) represents the Project's fair share based on the following formula:

- Project Fair Share (4) = Column (1)/[Column (2) – Column (3)]*100

The fifth column (5) presents the total estimated improvement cost for the recommended improvements. The sixth column (6) presents the Project's fair share contribution, based on the fair share percentage and the total estimated improvement cost.

The Project fair share percentage (worse time period impacted) for the impacted intersection for the Year 2020 With Project traffic conditions is shown below:

- Temescal Canyon Road at Cajalco Road 30.36%

As shown in *Table 10-1*, the Project's fair share responsibility toward the restriping the northbound approach and the installation of an eastbound right-turn overlap is **30.36%**. As the total cost of the improvements is estimated to be \$20,000, the Project's fair share contribution is approximately **\$6,072.00**.

**TABLE 10-1
YEAR 2020 INTERSECTION FAIR SHARE CONTRIBUTION**

Key Intersection	Impacted Time Period	(1) Project Only Delay Increase (s/v)	(2) Total Delay of Intersection (s/v)	(3) Maximum Acceptable Delay at LOS D (s/v)	(4) Project Fair Share Responsibility	(5) Total Improvement Cost	(6) Project Fair Share Contribution
2. Temescal Canyon Road at Cajalco Road	AM PM	2.6 3.4	66.0 66.2	55.0 55.0	23.64% 30.36%	\$20,000.00	\$6,072.00

Notes:

- Net Project Percent Increase (4) = Column (1) / [Column (2) – Column (3)]
- **Bold Project Fair Share Responsibility** is based on worse case

11.0 SITE ACCESS AND INTERNAL CIRCULATION ANALYSIS

11.1 Site Access

As previously detailed, Project access will be provided via three (3) driveways along Temescal Canyon Road and one (1) driveway along Dos Lagos Drive. Driveways 1 and 3 (located along Temescal Canyon Road) and Driveway 4 (located along Dos Lagos Road) will be stop-controlled right-in/right-out only driveways, while Driveway 2 (located along Temescal Canyon Road) will be a signalized (six-phase) full movement driveway.

11.1.1 Year 2020 With Project Traffic Conditions

Table 11-1 summarizes the levels of service at the Project driveways for Year 2020 With Project traffic conditions. The operations analysis for the Project access is based on the *Highway Capacity Manual 6* (HCM 6) Method of Analysis for unsignalized intersections. As shown in column (1) of *Table 11-1* the Project access is forecast to operate at acceptable levels of service during the AM and PM peak hours under the Year 2020 With Project traffic conditions. *Appendix F* contains the Delay/LOS calculation worksheets for the Year 2020 With Project Traffic Conditions.

11.2 Internal Circulation

The on-site circulation was evaluated in terms of vehicle-pedestrian conflicts. Based on our review of the preliminary site plan, the overall layout does not create significant vehicle-pedestrian conflict points such that access for the residential and commercial components are not impacted by internal vehicle queuing/stacking. Project traffic is not anticipated to cause significant internal queuing/stacking at the Project driveway. The on-site circulation is acceptable based on our review of the proposed site plan. The alignment and spacing of the Project driveway is also deemed adequate. Turning movements into and out of the Project site at the Project driveway are anticipated to operate at an acceptable service levels. As such, motorists entering and exiting the Project site from this driveway will be able to do so comfortably, safely, and without undue congestion.

TABLE 11-1
PROJECT ACCESS PEAK HOUR CAPACITY ANALYSIS SUMMARY¹⁶

Project Driveway	Time Period	(1) Year 2020 With Project Traffic Conditions	
		Delay (s/v)	LOS
A. Temescal Canyon Road at Project Driveway 1	AM	9.2	A
	PM	14.5	B
B. Temescal Canyon Road at Project Driveway 2	AM	17.1	B
	PM	16.9	B
C. Temescal Canyon Road at Project Driveway 3	AM	9.3	A
	PM	13.3	B
D. Project Driveway 4 at Dos Lagos Drive	AM	9.4	A
	PM	11.9	B

Notes:

- s/v = seconds per vehicle (delay).
- LOS = Level of Service, please refer to *Table 3-2* for the LOS definitions.
- **Delay/LOS values** indicate unacceptable service levels.

¹⁶ Appendix F contains the Delay/LOS calculation worksheets for the Project driveway.

12.0 INTERSECTION QUEUE LENGTH ANALYSIS

To address City staff concerns regarding left-turn and right-turn stacking/storage lengths at several locations, a queuing evaluation was prepared for the following movements:

- Temescal Canyon Road at Project Driveway 1
 - Eastbound Right-turn
- Temescal Canyon Road at Project Driveway 2
 - Northbound Left-turn
 - Southbound Right-turn
 - Eastbound Left-turn
- Project Driveway 4 at Dos Lagos Drive
 - Southbound Right-turn

Table 12-1 identifies the minimum required stacking/storage lengths for affected left-turn and right-turn lanes for the Project driveways for the Existing With Project and Year 2020 With Project traffic conditions. Column (1) shows the existing or proposed storage length, in feet. Column (2) shows the left-turn or right-turn queue (in vehicles per lane), the corresponding required storage necessary to accommodate the vehicles (in feet, assuming 25 feet per vehicle), and indicates whether or not the existing storage is sufficient based on the calculated 95th percentile queue for Existing With Project traffic conditions. Column (3) shows the left-turn or right-turn queue (in vehicles per lane), the corresponding required storage necessary to accommodate the vehicles (in feet, assuming 25 feet per vehicle), and indicates whether or not the existing storage is sufficient based on the calculated 95th percentile queue, for Year 2020 With Project traffic conditions.

12.1 Existing With Project Intersection Queuing Evaluation

As presented in Column (2) of *Table 12-1* under Existing With Project traffic conditions, all existing or proposed left-turn or right-turn storage is sufficient at the Project driveways along Temescal Canyon Road and Dos Lagos Drive.

12.2 Year 2020 With Project Intersection Queuing Evaluation

As presented in Column (3) of *Table 12-1* under Year 2020 With Project traffic conditions, all existing or proposed left-turn or right-turn storage is sufficient at the Project driveways along Temescal Canyon Road and Dos Lagos Drive.

**TABLE 12-1
PROJECT DRIVEWAY QUEUE LENGTH ANALYSIS¹⁷**

Key Intersection	Approach	Time Period	(1) Existing/ Proposed Storage Length (ft)	(2) Existing With Project Traffic Conditions			(3) Year 2020 With Project Traffic Conditions			
				95 th Percentile Queue (vpl)	Minimum Required Storage Length (ft)	Existing Storage Sufficient? (yes/no)	95 th Percentile Queue (vpl)	Minimum Required Storage Length (ft)	Existing Storage Sufficient? (yes/no)	
				A.	Temescal Canyon Road at Project Driveway 1	EBR	AM	85	1	25
		PM	85	1		25	Yes	1	25	Yes
B.	Temescal Canyon Road at Project Driveway 2	NBL	AM	220	6	150	Yes	7	175	Yes
			PM	220	7	175	Yes	7	175	Yes
		SBR	AM	150	1	25	Yes	1	25	Yes
			PM	150	1	25	Yes	1	25	Yes
		EBL	AM	110	2	50	Yes	3	75	Yes
			PM	110	2	50	Yes	2	50	Yes
D.	Project Driveway 4 at Dos Lagos Drive	SBR	AM	60	1	25	Yes	1	25	Yes
			PM	60	1	25	Yes	1	25	Yes

¹⁷ Appendices D and E contain the Delay/LOS calculation worksheets which show the 95th percentile queuing.

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January 31, 2023

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RE: Terrano II Multi-Family Development at Dos Lagos Air Quality – City of Corona

The purpose of this air quality screening letter is to identify air quality impacts, if any, which may be created from the construction and operation of the proposed 50-unit Apartment complex on a 2.96 acre project site within Planning Area 1 of the Dos Lagos Specific Plan. The site is located on the west of Temescal Canyon Road and north of Dos Lagos Drive in the City of Corona.

Planning Area 1 of the Dos Lagos Specific Plan was entitled in 2018 and included a 276-unit apartment complex, a 107 room hotel, 6,100 square-feet (SF) of commercial uses, 10,300 SF of restaurant uses (4,000 SF quality restaurant use and 6,300 SF high-turnover sit-down restaurant use), and a 20-fueling position gas station with convenience store and car wash, of which the apartment complex, hotel, and gas station are completed and opened.

The proposed Project consists of replacing the entitled retail and restaurant uses with 50 multifamily (low-rise) apartment dwelling units within eight (8) buildings. In addition, the Project would not install fireplaces or hearths of any type. Access for the proposed apartments will be provided via the existing internal circulation system and no new public access driveway are proposed. This project is the last development piece to Planning Area 1 of the Dos Lagos Specific Plan.

Construction within Dos Lagos Planning Area 1 is generally completed with the exception of this remaining lot. Construction would start early 2024 and be completed less than one year later.

Once construction is completed the proposed project would generate operational air quality emissions. These operational emissions would originate from daily vehicle operations, use of consumer products, and from landscaping equipment.

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Air quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2020.4.0 air quality and GHG model, which was developed by Breeze Software for South Coast Air Quality Management District (SCAQMD). The City of Corona recognizes the CalEEMod Version 2020.4.0 as an acceptable model for projects of this nature. The Air Quality modeling is proved as **Attachment A** to this report.

Regional Air Quality Significance Thresholds

Regional Air quality screening criteria for the City of Corona utilize South Coast Air Quality Management District’s (SQAQMD) Air Quality Thresholds. The screening thresholds for construction and daily operations are shown in Table 1.

Table 1: City of Corona Regional Air Quality Significance Thresholds

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM ₁₀ / PM _{2.5})	150 / 55
Nitrogen Oxide (NO _x)	100
Sulfur Oxide (SO _x)	150
Carbon Monoxide (CO)	550
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Pollutant	Total Emissions (Pounds per Day)
Respirable Particulate Matter (PM ₁₀ / PM _{2.5})	150 / 55
Nitrogen Oxide (NO _x)	55
Sulfur Oxide (SO _x)	150
Carbon Monoxide (CO)	550
Reactive Organic Gases (ROG) SCAQMD	55

Localized Significance Thresholds

In June 2003 the SCAQMD proposed a methodology for calculating Localized Significance Thresholds (LSTs) for NO₂, CO, PM_{2.5} and PM₁₀. The LST methodology was developed to be used as a tool to assist lead agencies to analyze localized impacts associated with project-specific level proposed projects and would not be applicable to regional projects such as general plans. The LST methodology was last updated to incorporate the most recent ambient air quality

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standards (July 2008). (South Coast Air Quality Management District, 2008). The LST methodology is often utilized by most agencies governed under SCAQMD CEQA review. SCAQMD developed mass rate look-up tables for projects to assist agencies with development of LSTs (South Coast Air Quality Management District, 2014).

Per the requirements of SCAQMDs LSTs methodology, emissions for gases in attainment such as NO₂ and CO are calculated by adding emission impacts from the project development to the peak background ambient NO₂ and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. Also, according to SCAQMD Rule 403, emissions for non-attainment particulate matter such as PM 10 and PM 2.5 can produce no more than 10.4 µg/m³. The LSTs derived by SCAQMD differentiated by Source Receptor area for which the proposed Project is would be represented by SRA #22 within the City of Corona. The Project was analyzed using a worst-case construction schedule using the appropriate equipment and quantities for this scenario. The Project site would not actively disturb more than 2 acres at any given time. Table 2 shows the worst-case Project LST at 25 meters (SCAQMD, 2009).

Table 2: LST Emission Thresholds

Pollutant	LST @ 25 meters (lb/day)
CO (Corrected utilizing NO ₂ /NO _x Ratio) Construction and Operation	1,007
PM ₁₀ (Construction)	6
PM ₁₀ (Operation)	2
PM _{2.5} (Construction)	5
PM _{2.5} (Operation)	2
NO ₂ (Corrected utilizing NO ₂ /NO _x Ratio) Construction and Operation	170

Project Related Construction Emissions

Construction of the project would begin shortly after the approval of the Proposed Project subdivision. Mass grading of the lot has been previously completed as part of the master plan so all grading necessary will be minimal and would mainly consist of footing preparations and finish grading, paving and architectural coating. This analysis assumes construction begins in 2024 and would be completed in less than one year. CalEEMod default settings were used which are based on the project site size and number of units proposed. These inputs would be conservative since limited grading is required. The proposed construction schedule and construction equipment list is identified in Table 3.

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Table 3: Proposed Construction Phase and Duration

Equipment Identification	Proposed Start	Proposed Completion	Quantity
Site Preparation	1/1/2024	1/3/2024	
Graders			1
Tractors/Loaders/Backhoes			1
Grading	1/4/2024	1/11/2024	
Graders			1
Rollers			1
Tractors/Loaders/Backhoes			2
Building Construction	1/12/2024	11/14/2024	
Cranes			1
Forklifts			2
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			3
Paving	11/15/2024	11/28/2024	
Pavers			1
Paving Equipment			1
Rollers			2
Architectural Coating	11/15/2024	11/28/2024	
Air Compressors			1
This equipment list is based upon equipment inventory and estimates within CalEEMod using default settings.			

Based on the modeling within CalEEMod, the construction emissions, which are reported in lbs/day, are shown in Table 4. Based on these findings, the project construction activities would have a less than significant regional air quality impacts and a less than significant localized impacts.

Table 4: Expected Daily Construction Emissions Summary Lb/Day

Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2024 (lb/day)	32.91	13.21	15.77	0.03	0.64	0.54	1.10	0.15	0.52	0.67
Significance Threshold (lb/day)	75	100	550	150	-	-	150	-	-	55
Localized Significance Threshold		170	1,007				6			5
SCAQMD/LST Impact?	No	No	No	No	-	-	No	-	-	No
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 2 above. CalEEMod Daily Summer and Winter output is attached to this letter.										

Project Related Operational Emissions

As previously discussed, operational emissions from Area, Energy, Mobile sources are also calculated within CalEEMod. The program is largely based on default settings which are automatically populated throughout the model based on the imputed land use. Southern California Edison averages for utility emissions were utilized for the calculations throughout the model. The model assumes that residential units includes a mix of various hearth options. Since the Project would not install hearth options, all hearths were removed from the model.

Traffic Generation was estimated to be 337 average daily trips (LL&G, 2023) and was utilized within CalEEMod. The calculated operational emissions are identified in Table 5 below. In addition, Table 4 include regional SCAQMD significance thresholds and LSTs.

CalEEMod utilized the proposed land use and then estimates worst-case air quality emissions from trip generations built into the model and include vehicle emission rates from EMFAC. The EMFAC model is built into the CalEEMod software. Estimates are provided for both the Summer and Winter operational months.

Based on the findings of the Air Quality modeling in CalEEMod daily operational activities would generate less than significant LST impact and would also generate less than significant regional air quality impacts.

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Table 5: Expected Daily Operational Air Quality Emissions

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer Scenario						
Onsite Operational Emissions (Lb/Day)	1.21	0.05	4.13	0	0.02	0.02
Onsite Energy Source Emissions (Lb/Day)	0.02	0.19	0.08	0	0.02	0.02
Total Onsite Emissions Only (Lb/Day)	1.23	0.24	4.21	0	0.04	0.04
Localized Significance Threshold		170	1,007		2	2
LST Impact?	No	No	No	No	No	No
Offsite Operational Vehicle Emissions (Lb/Day)	1.01	1.29	9.85	0.02	2.45	0.67
Total Emissions (Lb/Day)	2.24	1.53	14.06	0.02	2.49	0.71
SCAQMD Thresholds	55	55	550	150	150	55
SCAQMD Impact?	No	No	No	No	No	No
Winter Scenario						
Onsite Operational Emissions (Lb/Day)	1.21	0.05	4.13	0	0.02	0.02
Onsite Energy Source Emissions (Lb/Day)	0.02	0.19	0.08	0	0.02	0.02
Total Onsite Emissions Only (Lb/Day)	1.23	0.24	4.21	0	0.04	0.04
Localized Significance Threshold		170	1,007		2	2
LST Impact?	No	No	No	No	No	No
Offsite Operational Vehicle Emissions (Lb/Day)	0.86	1.37	8.72	0.02	2.45	0.67
Total Emissions (Lb/Day)	2.09	1.61	12.93	0.02	2.49	0.71
SCAQMD Thresholds	55	55	550	150	150	55
SCAQMD Impact?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances and defaults within CalEEMod						

Based on these findings, no impacts are anticipated and no further analysis is required. If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

Sincerely,
 Ldn Consulting, Inc.

Jeremy Loudon

Matt McKinlay
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42428 Chisolm Trail, Murrieta CA 92562
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Attachment A: CalEEMod Model Results

References:

- LL&G. (2023). *Traffic Circuation Assessment for the Proposed Terrano II Apartments at Dos Lagos.*
- SCAQMD. (2009, Oct 21). *Localized Significance Thresholds Lookup Tables.* Retrieved 2015, from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>
- South Coast Air Quality Management District. (2008, July). *Finalized Localized Significance Threshold Methodology.* Retrieved from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>
- South Coast Air Quality Management District. (2014). *Localized Significance Thresholds.* Retrieved 2014, from <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Terrano II Apartments
Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	50.00	Dwelling Unit	2.47	50,000.00	143
Parking Lot	55.00	Space	0.49	22,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - 2.96 acres
- Construction Phase -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -
- Vehicle Trips - per TS
- Construction Off-road Equipment Mitigation -

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No hearth options will be provided

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	12/12/2024	11/28/2024
tblConstructionPhase	PhaseStartDate	11/29/2024	11/15/2024
tblFireplaces	NumberGas	42.50	0.00
tblFireplaces	NumberNoFireplace	5.00	50.00
tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	3.13	2.47
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	WD_TR	7.32	6.74
tblWoodstoves	NumberCatalytic	2.50	0.00
tblWoodstoves	NumberNoncatalytic	2.50	0.00

2.0 Emissions Summary

Terrano II Apartments - Riverside-South Coast County, 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	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Energy	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
Mobile	1.0055	1.2879	9.8477	0.0231	2.4328	0.0176	2.4503	0.6490	0.0165	0.6654		2,408.4236	2,408.4236	0.1110	0.1069	2,443.0408
Total	2.2373	1.5264	14.0557	0.0245	2.4328	0.0559	2.4887	0.6490	0.0548	0.7038	0.0000	2,659.6330	2,659.6330	0.1228	0.1113	2,695.8773

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	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Energy	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
Mobile	1.0055	1.2879	9.8477	0.0231	2.4328	0.0176	2.4503	0.6490	0.0165	0.6654		2,408.4236	2,408.4236	0.1110	0.1069	2,443.0408
Total	2.2373	1.5264	14.0557	0.0245	2.4328	0.0559	2.4887	0.6490	0.0548	0.7038	0.0000	2,659.6330	2,659.6330	0.1228	0.1113	2,695.8773

Terrano II Apartments - Riverside-South Coast County, 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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	11/14/2024	5	220	
4	Paving	Paving	11/15/2024	11/28/2024	5	10	
5	Architectural Coating	Architectural Coating	11/15/2024	11/28/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0.49

Residential Indoor: 101,250; Residential Outdoor: 33,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,320 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rollers	1	7.00	80	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.4805	5.4229	3.6126	9.3400e-003		0.1929	0.1929		0.1775	0.1775		904.5534	904.5534	0.2926		911.8671
Total	0.4805	5.4229	3.6126	9.3400e-003	0.5303	0.1929	0.7232	0.0573	0.1775	0.2347		904.5534	904.5534	0.2926		911.8671

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	0.0170	0.0101	0.1718	4.8000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		49.0963	49.0963	1.0400e-003	1.0900e-003	49.4470
Total	0.0170	0.0101	0.1718	4.8000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		49.0963	49.0963	1.0400e-003	1.0900e-003	49.4470

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.4805	5.4229	3.6126	9.3400e-003		0.1929	0.1929		0.1775	0.1775	0.0000	904.5534	904.5534	0.2926		911.8671
Total	0.4805	5.4229	3.6126	9.3400e-003	0.2386	0.1929	0.4315	0.0258	0.1775	0.2033	0.0000	904.5534	904.5534	0.2926		911.8671

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	0.0170	0.0101	0.1718	4.8000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		49.0963	49.0963	1.0400e-003	1.0900e-003	49.4470
Total	0.0170	0.0101	0.1718	4.8000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		49.0963	49.0963	1.0400e-003	1.0900e-003	49.4470

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7324	8.0071	7.1671	0.0143		0.3208	0.3208		0.2951	0.2951		1,388.1678	1,388.1678	0.4490		1,399.3918
Total	0.7324	8.0071	7.1671	0.0143	0.5303	0.3208	0.8510	0.0573	0.2951	0.3524		1,388.1678	1,388.1678	0.4490		1,399.3918

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	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941
Total	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.7324	8.0071	7.1671	0.0143		0.3208	0.3208		0.2951	0.2951	0.0000	1,388.1678	1,388.1678	0.4490		1,399.3918
Total	0.7324	8.0071	7.1671	0.0143	0.2386	0.3208	0.5594	0.0258	0.2951	0.3209	0.0000	1,388.1678	1,388.1678	0.4490		1,399.3918

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	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941
Total	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941

Terrano II Apartments - Riverside-South Coast County, Summer

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	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4

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	9.9900e-003	0.2941	0.1197	1.5500e-003	0.0576	2.5400e-003	0.0602	0.0166	2.4300e-003	0.0190		164.1740	164.1740	1.7600e-003	0.0242	171.4366
Worker	0.1533	0.0905	1.5458	4.2800e-003	0.5030	2.2600e-003	0.5053	0.1334	2.0800e-003	0.1355		441.8665	441.8665	9.3600e-003	9.8100e-003	445.0234
Total	0.1633	0.3846	1.6655	5.8300e-003	0.5606	4.8000e-003	0.5654	0.1500	4.5100e-003	0.1545		606.0405	606.0405	0.0111	0.0340	616.4600

Terrano II Apartments - Riverside-South Coast County, Summer

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	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4

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	9.9900e-003	0.2941	0.1197	1.5500e-003	0.0576	2.5400e-003	0.0602	0.0166	2.4300e-003	0.0190		164.1740	164.1740	1.7600e-003	0.0242	171.4366
Worker	0.1533	0.0905	1.5458	4.2800e-003	0.5030	2.2600e-003	0.5053	0.1334	2.0800e-003	0.1355		441.8665	441.8665	9.3600e-003	9.8100e-003	445.0234
Total	0.1633	0.3846	1.6655	5.8300e-003	0.5606	4.8000e-003	0.5654	0.1500	4.5100e-003	0.1545		606.0405	606.0405	0.0111	0.0340	616.4600

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	0.6398	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897		1,357.9193	1,357.9193	0.4392		1,368.8988
Paving	0.1284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7682	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897		1,357.9193	1,357.9193	0.4392		1,368.8988

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	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941
Total	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	0.6398	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897	0.0000	1,357.9193	1,357.9193	0.4392		1,368.8988
Paving	0.1284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7682	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897	0.0000	1,357.9193	1,357.9193	0.4392		1,368.8988

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	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941
Total	0.0341	0.0201	0.3435	9.5000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		98.1926	98.1926	2.0800e-003	2.1800e-003	98.8941

Terrano II Apartments - Riverside-South Coast County, Summer

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	31.8981					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	32.0788	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	0.0307	0.0181	0.3092	8.6000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		88.3733	88.3733	1.8700e-003	1.9600e-003	89.0047
Total	0.0307	0.0181	0.3092	8.6000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		88.3733	88.3733	1.8700e-003	1.9600e-003	89.0047

Terrano II Apartments - Riverside-South Coast County, Summer

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	31.8981					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	32.0788	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	0.0307	0.0181	0.3092	8.6000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		88.3733	88.3733	1.8700e-003	1.9600e-003	89.0047
Total	0.0307	0.0181	0.3092	8.6000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		88.3733	88.3733	1.8700e-003	1.9600e-003	89.0047

Terrano II Apartments - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	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	1.0055	1.2879	9.8477	0.0231	2.4328	0.0176	2.4503	0.6490	0.0165	0.6654		2,408.4236	2,408.4236	0.1110	0.1069	2,443.0408
Unmitigated	1.0055	1.2879	9.8477	0.0231	2.4328	0.0176	2.4503	0.6490	0.0165	0.6654		2,408.4236	2,408.4236	0.1110	0.1069	2,443.0408

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	337.00	337.00	337.00	1,151,580	1,151,580
Parking Lot	0.00	0.00	0.00		
Total	337.00	337.00	337.00	1,151,580	1,151,580

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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 Low 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

4.4 Fleet Mix

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
NaturalGas Unmitigated	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

Terrano II Apartments - Riverside-South Coast County, 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 Low Rise	2072.04	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
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
Total		0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

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 Low Rise	2.07204	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
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
Total		0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

6.0 Area Detail

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Unmitigated	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

Terrano II Apartments - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1243	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229		7.4397	7.4397	7.1400e-003		7.6183
Total	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

Terrano II Apartments - Riverside-South Coast County, Summer

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	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1243	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229		7.4397	7.4397	7.1400e-003		7.6183
Total	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

7.0 Water Detail

7.1 Mitigation Measures Water

Terrano II Apartments - Riverside-South Coast County, Summer

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
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Terrano II Apartments
Riverside-South Coast County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	50.00	Dwelling Unit	2.47	50,000.00	143
Parking Lot	55.00	Space	0.49	22,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - 2.96 acres
- Construction Phase -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -
- Vehicle Trips - per TS
- Construction Off-road Equipment Mitigation -

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No hearth options will be provided

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	12/12/2024	11/28/2024
tblConstructionPhase	PhaseStartDate	11/29/2024	11/15/2024
tblFireplaces	NumberGas	42.50	0.00
tblFireplaces	NumberNoFireplace	5.00	50.00
tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	3.13	2.47
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	WD_TR	7.32	6.74
tblWoodstoves	NumberCatalytic	2.50	0.00
tblWoodstoves	NumberNoncatalytic	2.50	0.00

2.0 Emissions Summary

Terrano II Apartments - Riverside-South Coast County, 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	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Energy	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
Mobile	0.8562	1.3671	8.7151	0.0214	2.4328	0.0176	2.4504	0.6490	0.0165	0.6654		2,236.4214	2,236.4214	0.1134	0.1091	2,271.7632
Total	2.0880	1.6056	12.9231	0.0229	2.4328	0.0559	2.4887	0.6490	0.0548	0.7038	0.0000	2,487.6308	2,487.6308	0.1252	0.1136	2,524.5997

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	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Energy	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
Mobile	0.8562	1.3671	8.7151	0.0214	2.4328	0.0176	2.4504	0.6490	0.0165	0.6654		2,236.4214	2,236.4214	0.1134	0.1091	2,271.7632
Total	2.0880	1.6056	12.9231	0.0229	2.4328	0.0559	2.4887	0.6490	0.0548	0.7038	0.0000	2,487.6308	2,487.6308	0.1252	0.1136	2,524.5997

Terrano II Apartments - Riverside-South Coast County, 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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	11/14/2024	5	220	
4	Paving	Paving	11/15/2024	11/28/2024	5	10	
5	Architectural Coating	Architectural Coating	11/15/2024	11/28/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0.49

Residential Indoor: 101,250; Residential Outdoor: 33,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,320 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rollers	1	7.00	80	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.4805	5.4229	3.6126	9.3400e-003		0.1929	0.1929		0.1775	0.1775		904.5534	904.5534	0.2926		911.8671
Total	0.4805	5.4229	3.6126	9.3400e-003	0.5303	0.1929	0.7232	0.0573	0.1775	0.2347		904.5534	904.5534	0.2926		911.8671

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	0.0160	0.0104	0.1395	4.3000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		44.4939	44.4939	1.0400e-003	1.1200e-003	44.8522
Total	0.0160	0.0104	0.1395	4.3000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		44.4939	44.4939	1.0400e-003	1.1200e-003	44.8522

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.4805	5.4229	3.6126	9.3400e-003		0.1929	0.1929		0.1775	0.1775	0.0000	904.5534	904.5534	0.2926		911.8671
Total	0.4805	5.4229	3.6126	9.3400e-003	0.2386	0.1929	0.4315	0.0258	0.1775	0.2033	0.0000	904.5534	904.5534	0.2926		911.8671

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	0.0160	0.0104	0.1395	4.3000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		44.4939	44.4939	1.0400e-003	1.1200e-003	44.8522
Total	0.0160	0.0104	0.1395	4.3000e-004	0.0559	2.5000e-004	0.0561	0.0148	2.3000e-004	0.0151		44.4939	44.4939	1.0400e-003	1.1200e-003	44.8522

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7324	8.0071	7.1671	0.0143		0.3208	0.3208		0.2951	0.2951		1,388.1678	1,388.1678	0.4490		1,399.3918
Total	0.7324	8.0071	7.1671	0.0143	0.5303	0.3208	0.8510	0.0573	0.2951	0.3524		1,388.1678	1,388.1678	0.4490		1,399.3918

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	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044
Total	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.7324	8.0071	7.1671	0.0143		0.3208	0.3208		0.2951	0.2951	0.0000	1,388.1678	1,388.1678	0.4490		1,399.3918
Total	0.7324	8.0071	7.1671	0.0143	0.2386	0.3208	0.5594	0.0258	0.2951	0.3209	0.0000	1,388.1678	1,388.1678	0.4490		1,399.3918

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	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044
Total	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044

Terrano II Apartments - Riverside-South Coast County, Winter

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	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4

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	9.2400e-003	0.3119	0.1238	1.5500e-003	0.0576	2.5500e-003	0.0602	0.0166	2.4400e-003	0.0190		164.5843	164.5843	1.7300e-003	0.0243	171.8700
Worker	0.1441	0.0939	1.2558	3.8800e-003	0.5030	2.2600e-003	0.5053	0.1334	2.0800e-003	0.1355		400.4453	400.4453	9.3500e-003	0.0100	403.6696
Total	0.1533	0.4058	1.3796	5.4300e-003	0.5606	4.8100e-003	0.5655	0.1500	4.5200e-003	0.1545		565.0297	565.0297	0.0111	0.0343	575.5396

Terrano II Apartments - Riverside-South Coast County, Winter

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	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4
Total	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4

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	9.2400e-003	0.3119	0.1238	1.5500e-003	0.0576	2.5500e-003	0.0602	0.0166	2.4400e-003	0.0190		164.5843	164.5843	1.7300e-003	0.0243	171.8700
Worker	0.1441	0.0939	1.2558	3.8800e-003	0.5030	2.2600e-003	0.5053	0.1334	2.0800e-003	0.1355		400.4453	400.4453	9.3500e-003	0.0100	403.6696
Total	0.1533	0.4058	1.3796	5.4300e-003	0.5606	4.8100e-003	0.5655	0.1500	4.5200e-003	0.1545		565.0297	565.0297	0.0111	0.0343	575.5396

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	0.6398	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897		1,357.9193	1,357.9193	0.4392		1,368.8988
Paving	0.1284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7682	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897		1,357.9193	1,357.9193	0.4392		1,368.8988

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	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044
Total	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	0.6398	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897	0.0000	1,357.9193	1,357.9193	0.4392		1,368.8988
Paving	0.1284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7682	6.2866	9.1629	0.0140		0.3149	0.3149		0.2897	0.2897	0.0000	1,357.9193	1,357.9193	0.4392		1,368.8988

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	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044
Total	0.0320	0.0209	0.2791	8.6000e-004	0.1118	5.0000e-004	0.1123	0.0296	4.6000e-004	0.0301		88.9879	88.9879	2.0800e-003	2.2300e-003	89.7044

Terrano II Apartments - Riverside-South Coast County, Winter

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	31.8981					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	32.0788	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	0.0288	0.0188	0.2512	7.8000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		80.0891	80.0891	1.8700e-003	2.0100e-003	80.7339
Total	0.0288	0.0188	0.2512	7.8000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		80.0891	80.0891	1.8700e-003	2.0100e-003	80.7339

Terrano II Apartments - Riverside-South Coast County, Winter

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	31.8981					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	32.0788	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	0.0288	0.0188	0.2512	7.8000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		80.0891	80.0891	1.8700e-003	2.0100e-003	80.7339
Total	0.0288	0.0188	0.2512	7.8000e-004	0.1006	4.5000e-004	0.1011	0.0267	4.2000e-004	0.0271		80.0891	80.0891	1.8700e-003	2.0100e-003	80.7339

Terrano II Apartments - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	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	0.8562	1.3671	8.7151	0.0214	2.4328	0.0176	2.4504	0.6490	0.0165	0.6654		2,236.421 4	2,236.421 4	0.1134	0.1091	2,271.763 2
Unmitigated	0.8562	1.3671	8.7151	0.0214	2.4328	0.0176	2.4504	0.6490	0.0165	0.6654		2,236.421 4	2,236.421 4	0.1134	0.1091	2,271.763 2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	337.00	337.00	337.00	1,151,580	1,151,580
Parking Lot	0.00	0.00	0.00		
Total	337.00	337.00	337.00	1,151,580	1,151,580

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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 Low 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

4.4 Fleet Mix

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
NaturalGas Unmitigated	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

Terrano II Apartments - Riverside-South Coast County, Winter

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 Low Rise	2072.04	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
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
Total		0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

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 Low Rise	2.07204	0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183
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
Total		0.0224	0.1910	0.0813	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.7697	243.7697	4.6700e-003	4.4700e-003	245.2183

6.0 Area Detail

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183
Unmitigated	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

Terrano II Apartments - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1243	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229		7.4397	7.4397	7.1400e-003		7.6183
Total	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

Terrano II Apartments - Riverside-South Coast County, Winter

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	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9978					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1243	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229		7.4397	7.4397	7.1400e-003		7.6183
Total	1.2094	0.0475	4.1268	2.2000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	7.4397	7.4397	7.1400e-003	0.0000	7.6183

7.0 Water Detail

7.1 Mitigation Measures Water

Terrano II Apartments - Riverside-South Coast County, Winter

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
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

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January 31, 2023

Matt McKinlay
Rexco Development
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Corona, CA 92879

RE: Terrano II Multi-Family Development at Dos Lagos GHG Letter – City of Corona

Planning Area 1 of the Dos Lagos Specific Plan was entitled in 2018 and included a 276-unit apartment complex, a 107 room hotel, 6,100 square-feet (SF) of commercial uses, 10,300 SF of restaurant uses (4,000 SF quality restaurant use and 6,300 SF high-turnover sit-down restaurant use), and a 20-fueling position gas station with convenience store and car wash, of which the apartment complex, hotel, and gas station are completed and opened.

The entitled 6,100 SF of commercial uses and the 10,300 SF of restaurant uses have not been constructed and a 2.96 acre undeveloped parcel remains within Planning Area 1. The proposed Project seeks to modify Planning Area 1 of the Dos Lagos Specific Plan and construct a 50-unit multi-family apartment development.

The purpose of this Greenhouse Gas (GHG) letter is to analyze the Project's GHG emissions and evaluate its conformance with the City of Corona's Climate Action Plan (CAP). As described in the City's CAP, there is an existing framework of federal, State, regional, and local policies and regulations that identify GHG reduction requirements within the State. The CAP provides a plan for the City to meet these requirements and achieve local reduction requirements outlined in the CAP (City of Corona, 2019). In addition, showing consistency with the CAP would also demonstrate that the proposed Project would have a less than significant impact under the California Environmental Quality Act (CEQA).

The City of Corona guidelines for determining significance for GHGs under CEQA are identified in the CEQA Thresholds and Screening Tables prepared for the City of Corona by LSA in 2019. Under this methodology, projects could demonstrate compliance with the City's Climate Action Plan (CAP) by indicating how the project would achieve 100 points based on the City's screening checklist guidance. Upon achieving 100 points, the project would equally be screened out with respect to GHG and have a less than significant impact under CEQA. The City's screening tables give initial guidance for mitigating significance though does not specifically include a numerical screening threshold (City of Corona, 2019). The intent of achieving points essentially is to

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implement project features to reduce energy consumption or improve the building's envelope to reduce energy losses.

Since the overall goal of the City's CAP is to reduce GHG emissions within the City of Corona, reducing GHG intensity from an approved land use would also ensure the City's GHG inventories are reduced. This letter compares GHG emissions which could be expected should buildout of the remaining SP land uses are constructed and operated with the proposed multi-family residential project. If the proposed Project reduces GHG emission intensity for the remaining 2.96 acre buildout area, the project would have a less than significant GHG impact under CEQA.

GHG emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses. Area Sources include usage of consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas. Solid waste generated in the form of trash is also considered as decomposition of organic material breaks down to form GHGs. GHGs from water are also indirectly generated through the conveyance of the resource via pumping throughout the state and as necessary for wastewater treatment. Finally, the project would also generate air quality emissions and GHG through the use of carbon fuel burning vehicles for transportation. Traffic Generation for the 50 unit apartment project was estimated to be 337 average daily trips (ADT) (LL&G, 2023) while the entitled SP project would generate 1,075 ADT (LL&G, 2023).

GHG impacts related to construction and daily operations for both the entitled development remaining and proposed multi-family developments were calculated using the latest CalEEMod 2020.4.0 air quality and GHG model, which was developed by Breeze Software for South Coast Air Quality Management District (SCAQMD) in 2021. The City of Corona recognizes the CalEEMod Version 2020.4.0 as an acceptable model for projects of this nature. Construction emissions for the site would essential be the same though minimal insignificant variation of GHG Emissions is expected. Given this, only yearly operational emissions are quantified in this analysis and presented for comparison. These models are provided as ***Attachments A and -B*** to this letter.

Entitled Commercial and Restaurant Operational Emissions

As previously discussed, the remainder development at Dos Lagos Planning Area 1 allows for the construction of 6,100 square-feet (SF) of commercial uses and 10,300 SF of restaurant uses (4,000 SF quality restaurant use and 6,300 SF high-turnover sit-down restaurant use). GHG emissions generated from this land use scenario are shown in Table 1 below and include emissions from default Area, Energy, Solid Waste and Water sources. Mobile emissions were manually updated utilizing scenario based ADT provided by the Project Traffic Engineer (LL&G, 2023). The CalEEMod output for this scenario is provided as ***Attachment A*** to this letter.

Table 1: Expected Operational Emissions Summary -Entitled Project - MT/Year

Year	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	245.24	245.24	0.01	0.00	246.63
Mobile	0.00	736.78	736.78	0.04	0.04	749.54
Waste	17.11	0.00	17.11	1.01	0.00	42.39
Water	1.34	11.43	12.76	0.14	0.00	17.22
Total Operations	18.45	993.45	1,011.89	1.20	0.04	1,055.78

Expected Construction emissions are based upon CalEEMod 2020.4.0 modeling assumptions for equipment and durations listed in Table 1 above.
 CalEEMod annual output is attached to this letter.
 Data is presented in decimal format and may have rounding errors.

Proposed 50-Unit Multi-Family Apartments Operational Emissions

The Proposed project seeks to modify Dos Lagos Planning Area 1 and instead construct a 50-unit multi-family apartment complex. GHG emissions generated from this land use scenario are shown in Table 2 below and include emissions from default Area, Energy, Solid Waste and Water sources. Mobile emissions were manually updated utilizing scenario-based ADT provided by the Project Traffic Engineer (LL&G, 2023). The CalEEMod output for this scenario is Provided as **Attachment B** to this letter.

Table 2: Expected Operational Emissions Summary – Proposed Project - MT/Year

Year	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Area	0.00	0.84	0.84	0.00	0.00	0.86
Energy	0.00	78.70	78.70	0.00	0.00	79.14
Mobile	0.00	375.11	375.11	0.02	0.02	380.97
Waste	4.67	0.00	4.67	0.28	0.00	11.57
Water	1.03	11.57	12.60	0.11	0.00	16.06
Total Operations	5.70	466.22	471.92	0.41	0.02	488.60

Expected Construction emissions are based upon CalEEMod 2020.4.0 modeling assumptions for equipment and durations listed in Table 1 above.
 CalEEMod annual output is attached to this letter.
 Data is presented in decimal format and may have rounding errors.

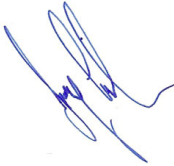
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Based upon the operations emissions modeling as calculated by CalEEMod, the proposed project would generally reduce GHG emissions by 53.7% compared to what would have been otherwise assumed for the 2.96 acre development site. This is largely due to the fact that the commercial and restaurant uses entitled would have a higher energy demand and would generate more traffic as identified by the Project Traffic Engineer. Since the Project would reduce GHG emissions by over half, the proposed Project action would have a less than significant impact on Climate Change and would be consistent with the goals and intent to reduce the City's GHG emissions spelled out in the City's CAP. Based on this, the project would not be required to implement GHG design features beyond those required by local state and City regulations. Therefore, the project would be considered less than significant for GHG emissions.

If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.



Jeremy Loudon

Attachment A: CalEEMod Model Results (Entitled Commercial and Restaurant Uses)

Attachment B: CalEEMod Model Results (Proposed Project)

References:

City of Corona. (2019). *City of Corona - Climate Action Plan Update*. Corona. Retrieved from <https://www.coronaca.gov/home/showpublisheddocument?id=18422>

LL&G. (2023). *Traffic Circuation Assessment for the Proposed Terrano II Apartments at Dos Lagos*.

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Planning Area 1 Commercial and Restaurant SP Scenario
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.10	1000sqft	1.00	6,100.00	0
Quality Restaurant	4.00	1000sqft	0.96	4,000.00	0
High Turnover (Sit Down Restaurant)	6.30	1000sqft	1.00	6,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	390.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - 2.96 Acres
 Construction Phase -
 Off-road Equipment -
 Off-road Equipment -
 Off-road Equipment -
 Off-road Equipment -
 Off-road Equipment -
 Grading -
 Vehicle Trips - Trip Generation is 65.54 per 1000 sf per Traffic Study... 16.4 KSF yields 1,075 trips

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	12/12/2024	11/28/2024
tblConstructionPhase	PhaseStartDate	11/29/2024	11/15/2024
tblLandUse	LotAcreage	0.14	1.00
tblLandUse	LotAcreage	0.09	0.96
tblLandUse	LotAcreage	0.14	1.00
tblVehicleTrips	ST_TR	2.21	65.54
tblVehicleTrips	ST_TR	122.40	65.54
tblVehicleTrips	ST_TR	90.04	65.54
tblVehicleTrips	SU_TR	0.70	65.54
tblVehicleTrips	SU_TR	142.64	65.54
tblVehicleTrips	SU_TR	71.97	65.54
tblVehicleTrips	WD_TR	9.74	65.54
tblVehicleTrips	WD_TR	112.18	65.54
tblVehicleTrips	WD_TR	83.84	65.54

2.0 Emissions Summary

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	0.4657	0.4657
2	4-1-2024	6-30-2024	0.4730	0.4730
3	7-1-2024	9-30-2024	0.4782	0.4782
		Highest	0.4782	0.4782

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	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004
Energy	0.0153	0.1387	0.1165	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	245.2437	245.2437	0.0109	3.7300e-003	246.6272
Mobile	0.4071	0.5484	3.5590	7.7800e-003	0.8409	6.4500e-003	0.8474	0.2246	6.0400e-003	0.2307	0.0000	736.7786	736.7786	0.0436	0.0392	749.5443
Waste						0.0000	0.0000		0.0000	0.0000	17.1101	0.0000	17.1101	1.0112	0.0000	42.3896
Water						0.0000	0.0000		0.0000	0.0000	1.3358	11.4256	12.7614	0.1382	3.3600e-003	17.2158
Total	0.4892	0.6870	3.6757	8.6100e-003	0.8409	0.0170	0.8579	0.2246	0.0166	0.2412	18.4459	993.4483	1,011.8942	1.2038	0.0463	1,055.7773

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004
Energy	0.0153	0.1387	0.1165	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	245.2437	245.2437	0.0109	3.7300e-003	246.6272
Mobile	0.4071	0.5484	3.5590	7.7800e-003	0.8409	6.4500e-003	0.8474	0.2246	6.0400e-003	0.2307	0.0000	736.7786	736.7786	0.0436	0.0392	749.5443
Waste						0.0000	0.0000		0.0000	0.0000	17.1101	0.0000	17.1101	1.0112	0.0000	42.3896
Water						0.0000	0.0000		0.0000	0.0000	1.3358	11.4256	12.7614	0.1382	3.3600e-003	17.2158
Total	0.4892	0.6870	3.6757	8.6100e-003	0.8409	0.0170	0.8579	0.2246	0.0166	0.2412	18.4459	993.4483	1,011.8942	1.2038	0.0463	1,055.7773

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	11/14/2024	5	220	

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4	Paving	Paving	11/15/2024	11/28/2024	5	10
5	Architectural Coating	Architectural Coating	11/15/2024	11/28/2024	5	10

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 24,600; Non-Residential Outdoor: 8,200; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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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
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	6.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409
Total	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005	8.0000e-004	2.9000e-004	1.0900e-003	9.0000e-005	2.7000e-004	3.6000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409

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3.2 Site Preparation - 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	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625
Total	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625

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					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409
Total	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005	8.0000e-004	2.9000e-004	1.0900e-003	9.0000e-005	2.7000e-004	3.6000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409

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3.2 Site Preparation - 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	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625
Total	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625

3.3 Grading - 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					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	3.9000e-003	0.0415	0.0261	6.0000e-005	0.0213	1.7200e-003	0.0230	0.0103	1.5800e-003	0.0119	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498
Total	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498

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					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	3.9000e-003	0.0415	0.0261	6.0000e-005	0.0213	1.7200e-003	0.0230	0.0103	1.5800e-003	0.0119	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750

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3.3 Grading - 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	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498
Total	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498

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	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4853	228.4853	0.0426	0.0000	229.5492
Total	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4853	228.4853	0.0426	0.0000	229.5492

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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	3.5000e-004	0.0113	4.4600e-003	6.0000e-005	2.0800e-003	9.0000e-005	2.1800e-003	6.0000e-004	9.0000e-005	6.9000e-004	0.0000	5.4667	5.4667	6.0000e-005	8.1000e-004	5.7087
Worker	2.0000e-003	1.4100e-003	0.0194	6.0000e-005	7.2500e-003	3.0000e-005	7.2900e-003	1.9300e-003	3.0000e-005	1.9600e-003	0.0000	5.4520	5.4520	1.2000e-004	1.4000e-004	5.4956
Total	2.3500e-003	0.0127	0.0239	1.2000e-004	9.3300e-003	1.2000e-004	9.4700e-003	2.5300e-003	1.2000e-004	2.6500e-003	0.0000	10.9187	10.9187	1.8000e-004	9.5000e-004	11.2043

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	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4851	228.4851	0.0426	0.0000	229.5489
Total	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4851	228.4851	0.0426	0.0000	229.5489

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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	3.5000e-004	0.0113	4.4600e-003	6.0000e-005	2.0800e-003	9.0000e-005	2.1800e-003	6.0000e-004	9.0000e-005	6.9000e-004	0.0000	5.4667	5.4667	6.0000e-005	8.1000e-004	5.7087
Worker	2.0000e-003	1.4100e-003	0.0194	6.0000e-005	7.2500e-003	3.0000e-005	7.2900e-003	1.9300e-003	3.0000e-005	1.9600e-003	0.0000	5.4520	5.4520	1.2000e-004	1.4000e-004	5.4956
Total	2.3500e-003	0.0127	0.0239	1.2000e-004	9.3300e-003	1.2000e-004	9.4700e-003	2.5300e-003	1.2000e-004	2.6500e-003	0.0000	10.9187	10.9187	1.8000e-004	9.5000e-004	11.2043

3.5 Paving - 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	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092

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3.5 Paving - 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	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163
Total	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163

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	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092

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3.5 Paving - 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	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163
Total	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163

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	0.0760					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.0769	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0416
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0416

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0760					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.0769	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0416
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0416

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, 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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4071	0.5484	3.5590	7.7800e-003	0.8409	6.4500e-003	0.8474	0.2246	6.0400e-003	0.2307	0.0000	736.7786	736.7786	0.0436	0.0392	749.5443
Unmitigated	0.4071	0.5484	3.5590	7.7800e-003	0.8409	6.4500e-003	0.8474	0.2246	6.0400e-003	0.2307	0.0000	736.7786	736.7786	0.0436	0.0392	749.5443

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	399.79	399.79	399.79	1,287,921	1,287,921
High Turnover (Sit Down Restaurant)	412.90	412.90	412.90	562,715	562,715
Quality Restaurant	262.16	262.16	262.16	373,219	373,219
Total	1,074.86	1,074.86	1,074.86	2,223,855	2,223,855

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
High Turnover (Sit Down Restaurant)	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quality Restaurant	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.2604	94.2604	7.9600e-003	9.6000e-004	94.7467
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.2604	94.2604	7.9600e-003	9.6000e-004	94.7467
NaturalGas Mitigated	0.0153	0.1387	0.1165	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.9833	150.9833	2.8900e-003	2.7700e-003	151.8806
NaturalGas Unmitigated	0.0153	0.1387	0.1165	8.3000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.9833	150.9833	2.8900e-003	2.7700e-003	151.8806

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, 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					
General Office Building	20923	1.1000e-004	1.0300e-003	8.6000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1165	1.1165	2.0000e-005	2.0000e-005	1.1232
High Turnover (Sit Down Restaurant)	1.71776e+006	9.2600e-003	0.0842	0.0707	5.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	91.6661	91.6661	1.7600e-003	1.6800e-003	92.2108
Quality Restaurant	1.09064e+006	5.8800e-003	0.0535	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.2007	58.2007	1.1200e-003	1.0700e-003	58.5466
Total		0.0153	0.1387	0.1165	8.4000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.9833	150.9833	2.9000e-003	2.7700e-003	151.8806

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, 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					
General Office Building	20923	1.1000e-004	1.0300e-003	8.6000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1165	1.1165	2.0000e-005	2.0000e-005	1.1232
High Turnover (Sit Down Restaurant)	1.71776e+006	9.2600e-003	0.0842	0.0707	5.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	91.6661	91.6661	1.7600e-003	1.6800e-003	92.2108
Quality Restaurant	1.09064e+006	5.8800e-003	0.0535	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.2007	58.2007	1.1200e-003	1.0700e-003	58.5466
Total		0.0153	0.1387	0.1165	8.4000e-004		0.0105	0.0105		0.0105	0.0105	0.0000	150.9833	150.9833	2.9000e-003	2.7700e-003	151.8806

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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			
General Office Building	56059	9.9418	8.4000e-004	1.0000e-004	9.9931
High Turnover (Sit Down Restaurant)	290808	51.5735	4.3500e-003	5.3000e-004	51.8396
Quality Restaurant	184640	32.7451	2.7600e-003	3.4000e-004	32.9140
Total		94.2604	7.9500e-003	9.7000e-004	94.7467

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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			
General Office Building	56059	9.9418	8.4000e-004	1.0000e-004	9.9931
High Turnover (Sit Down Restaurant)	290808	51.5735	4.3500e-003	5.3000e-004	51.8396
Quality Restaurant	184640	32.7451	2.7600e-003	3.4000e-004	32.9140
Total		94.2604	7.9500e-003	9.7000e-004	94.7467

6.0 Area Detail

6.1 Mitigation Measures Area

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, 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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004
Unmitigated	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004

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	7.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0593					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004
Total	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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	7.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0593					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004
Total	0.0669	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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	12.7614	0.1382	3.3600e-003	17.2158
Unmitigated	12.7614	0.1382	3.3600e-003	17.2158

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.08418 / 0.664495	4.1568	0.0357	8.7000e-004	5.3083
High Turnover (Sit Down Restaurant)	1.91226 / 0.122059	5.2630	0.0627	1.5200e-003	7.2832
Quality Restaurant	1.21413 / 0.077498	3.3416	0.0398	9.6000e-004	4.6243
Total		12.7614	0.1382	3.3500e-003	17.2158

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.08418 / 0.664495	4.1568	0.0357	8.7000e-004	5.3083
High Turnover (Sit Down Restaurant)	1.91226 / 0.122059	5.2630	0.0627	1.5200e-003	7.2832
Quality Restaurant	1.21413 / 0.077498	3.3416	0.0398	9.6000e-004	4.6243
Total		12.7614	0.1382	3.3500e-003	17.2158

8.0 Waste Detail

8.1 Mitigation Measures Waste

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, 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	17.1101	1.0112	0.0000	42.3896
Unmitigated	17.1101	1.0112	0.0000	42.3896

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	5.67	1.1510	0.0680	0.0000	2.8515
High Turnover (Sit Down Restaurant)	74.97	15.2182	0.8994	0.0000	37.7025
Quality Restaurant	3.65	0.7409	0.0438	0.0000	1.8356
Total		17.1101	1.0112	0.0000	42.3896

Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

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			
General Office Building	5.67	1.1510	0.0680	0.0000	2.8515
High Turnover (Sit Down Restaurant)	74.97	15.2182	0.8994	0.0000	37.7025
Quality Restaurant	3.65	0.7409	0.0438	0.0000	1.8356
Total		17.1101	1.0112	0.0000	42.3896

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Planning Area 1 Commercial and Restaurant SP Scenario - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Terrano II Apartments
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	50.00	Dwelling Unit	2.47	50,000.00	143
Parking Lot	55.00	Space	0.49	22,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - 2.96 acres
- Construction Phase -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -
- Vehicle Trips - per TS
- Construction Off-road Equipment Mitigation -

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No hearth options will be provided

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	12/12/2024	11/28/2024
tblConstructionPhase	PhaseStartDate	11/29/2024	11/15/2024
tblFireplaces	NumberGas	42.50	0.00
tblFireplaces	NumberNoFireplace	5.00	50.00
tblFireplaces	NumberWood	2.50	0.00
tblLandUse	LotAcreage	3.13	2.47
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	WD_TR	7.32	6.74
tblWoodstoves	NumberCatalytic	2.50	0.00
tblWoodstoves	NumberNoncatalytic	2.50	0.00

2.0 Emissions Summary

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2024	3-31-2024	0.4595	0.4595
2	4-1-2024	6-30-2024	0.4865	0.4865
3	7-1-2024	9-30-2024	0.4918	0.4918
		Highest	0.4918	0.4918

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	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639
Energy	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	78.7005	78.7005	4.0100e-003	1.1300e-003	79.1381
Mobile	0.1577	0.2501	1.6384	3.9600e-003	0.4355	3.1900e-003	0.4387	0.1163	2.9900e-003	0.1193	0.0000	375.1057	375.1057	0.0187	0.0181	380.9670
Waste						0.0000	0.0000		0.0000	0.0000	4.6688	0.0000	4.6688	0.2759	0.0000	11.5667
Water						0.0000	0.0000		0.0000	0.0000	1.0335	11.5693	12.6028	0.1071	2.6200e-003	16.0632
Total	0.3753	0.2909	2.1691	4.2100e-003	0.4355	8.8700e-003	0.4443	0.1163	8.6700e-003	0.1250	5.7023	466.2191	471.9214	0.4066	0.0219	488.5989

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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	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639
Energy	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	78.7005	78.7005	4.0100e-003	1.1300e-003	79.1381
Mobile	0.1577	0.2501	1.6384	3.9600e-003	0.4355	3.1900e-003	0.4387	0.1163	2.9900e-003	0.1193	0.0000	375.1057	375.1057	0.0187	0.0181	380.9670
Waste						0.0000	0.0000		0.0000	0.0000	4.6688	0.0000	4.6688	0.2759	0.0000	11.5667
Water						0.0000	0.0000		0.0000	0.0000	1.0335	11.5693	12.6028	0.1071	2.6200e-003	16.0632
Total	0.3753	0.2909	2.1691	4.2100e-003	0.4355	8.8700e-003	0.4443	0.1163	8.6700e-003	0.1250	5.7023	466.2191	471.9214	0.4066	0.0219	488.5989

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	11/14/2024	5	220	

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4	Paving	Paving	11/15/2024	11/28/2024	5	10
5	Architectural Coating	Architectural Coating	11/15/2024	11/28/2024	5	10

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0.49

Residential Indoor: 101,250; Residential Outdoor: 33,750; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,320 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rollers	1	7.00	80	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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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
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 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					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409
Total	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005	8.0000e-004	2.9000e-004	1.0900e-003	9.0000e-005	2.7000e-004	3.6000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409

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3.2 Site Preparation - 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	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625
Total	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625

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					3.6000e-004	0.0000	3.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005		2.9000e-004	2.9000e-004		2.7000e-004	2.7000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409
Total	7.2000e-004	8.1300e-003	5.4200e-003	1.0000e-005	3.6000e-004	2.9000e-004	6.5000e-004	4.0000e-005	2.7000e-004	3.1000e-004	0.0000	1.2309	1.2309	4.0000e-004	0.0000	1.2409

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3.2 Site Preparation - 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	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625
Total	2.0000e-005	2.0000e-005	2.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0620	0.0620	0.0000	0.0000	0.0625

3.3 Grading - 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					
Fugitive Dust					1.5900e-003	0.0000	1.5900e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-003	0.0240	0.0215	4.0000e-005		9.6000e-004	9.6000e-004		8.9000e-004	8.9000e-004	0.0000	3.7780	3.7780	1.2200e-003	0.0000	3.8085
Total	2.2000e-003	0.0240	0.0215	4.0000e-005	1.5900e-003	9.6000e-004	2.5500e-003	1.7000e-004	8.9000e-004	1.0600e-003	0.0000	3.7780	3.7780	1.2200e-003	0.0000	3.8085

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3.3 Grading - 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	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498
Total	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498

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					7.2000e-004	0.0000	7.2000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-003	0.0240	0.0215	4.0000e-005		9.6000e-004	9.6000e-004		8.9000e-004	8.9000e-004	0.0000	3.7780	3.7780	1.2200e-003	0.0000	3.8085
Total	2.2000e-003	0.0240	0.0215	4.0000e-005	7.2000e-004	9.6000e-004	1.6800e-003	8.0000e-005	8.9000e-004	9.7000e-004	0.0000	3.7780	3.7780	1.2200e-003	0.0000	3.8085

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3.3 Grading - 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	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498
Total	9.0000e-005	6.0000e-005	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2478	0.2478	1.0000e-005	1.0000e-005	0.2498

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	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4853	228.4853	0.0426	0.0000	229.5492
Total	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4853	228.4853	0.0426	0.0000	229.5492

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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	1.0600e-003	0.0340	0.0134	1.7000e-004	6.2500e-003	2.8000e-004	6.5300e-003	1.8000e-003	2.7000e-004	2.0700e-003	0.0000	16.4002	16.4002	1.7000e-004	2.4200e-003	17.1261
Worker	0.0150	0.0106	0.1456	4.4000e-004	0.0544	2.5000e-004	0.0547	0.0145	2.3000e-004	0.0147	0.0000	40.8897	40.8897	9.4000e-004	1.0200e-003	41.2171
Total	0.0161	0.0446	0.1590	6.1000e-004	0.0607	5.3000e-004	0.0612	0.0163	5.0000e-004	0.0168	0.0000	57.2899	57.2899	1.1100e-003	3.4400e-003	58.3432

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	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4851	228.4851	0.0426	0.0000	229.5489
Total	0.1757	1.4106	1.5510	2.7500e-003		0.0592	0.0592		0.0567	0.0567	0.0000	228.4851	228.4851	0.0426	0.0000	229.5489

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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	1.0600e-003	0.0340	0.0134	1.7000e-004	6.2500e-003	2.8000e-004	6.5300e-003	1.8000e-003	2.7000e-004	2.0700e-003	0.0000	16.4002	16.4002	1.7000e-004	2.4200e-003	17.1261
Worker	0.0150	0.0106	0.1456	4.4000e-004	0.0544	2.5000e-004	0.0547	0.0145	2.3000e-004	0.0147	0.0000	40.8897	40.8897	9.4000e-004	1.0200e-003	41.2171
Total	0.0161	0.0446	0.1590	6.1000e-004	0.0607	5.3000e-004	0.0612	0.0163	5.0000e-004	0.0168	0.0000	57.2899	57.2899	1.1100e-003	3.4400e-003	58.3432

3.5 Paving - 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	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092
Paving	6.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8400e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092

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3.5 Paving - 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	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163
Total	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163

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	3.2000e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092
Paving	6.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8400e-003	0.0314	0.0458	7.0000e-005		1.5700e-003	1.5700e-003		1.4500e-003	1.4500e-003	0.0000	6.1594	6.1594	1.9900e-003	0.0000	6.2092

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163
Total	1.5000e-004	1.1000e-004	1.4700e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4130	0.4130	1.0000e-005	1.0000e-005	0.4163

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	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.1604	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Terrano II Apartments - Riverside-South Coast County, Annual

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	1.4000e-004	1.0000e-004	1.3200e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3717	0.3717	1.0000e-005	1.0000e-005	0.3747
Total	1.4000e-004	1.0000e-004	1.3200e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3717	0.3717	1.0000e-005	1.0000e-005	0.3747

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.1604	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

Terrano II Apartments - Riverside-South Coast County, Annual

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	1.4000e-004	1.0000e-004	1.3200e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3717	0.3717	1.0000e-005	1.0000e-005	0.3747
Total	1.4000e-004	1.0000e-004	1.3200e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3717	0.3717	1.0000e-005	1.0000e-005	0.3747

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Terrano II Apartments - Riverside-South Coast County, 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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1577	0.2501	1.6384	3.9600e-003	0.4355	3.1900e-003	0.4387	0.1163	2.9900e-003	0.1193	0.0000	375.1057	375.1057	0.0187	0.0181	380.9670
Unmitigated	0.1577	0.2501	1.6384	3.9600e-003	0.4355	3.1900e-003	0.4387	0.1163	2.9900e-003	0.1193	0.0000	375.1057	375.1057	0.0187	0.0181	380.9670

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	337.00	337.00	337.00	1,151,580	1,151,580
Parking Lot	0.00	0.00	0.00		
Total	337.00	337.00	337.00	1,151,580	1,151,580

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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 Low 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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

5.0 Energy Detail

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.3417	38.3417	3.2400e-003	3.9000e-004	38.5395
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.3417	38.3417	3.2400e-003	3.9000e-004	38.5395
Natural Gas Mitigated	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986
Natural Gas Unmitigated	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986

Terrano II Apartments - Riverside-South Coast County, 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 Low Rise	756296	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986
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
Total		4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986

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 Low Rise	756296	4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986
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
Total		4.0800e-003	0.0349	0.0148	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3588	40.3588	7.7000e-004	7.4000e-004	40.5986

Terrano II Apartments - Riverside-South Coast County, Annual

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 Low Rise	208498	36.9761	3.1200e-003	3.8000e-004	37.1669
Parking Lot	7700	1.3656	1.2000e-004	1.0000e-005	1.3726
Total		38.3417	3.2400e-003	3.9000e-004	38.5395

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	208498	36.9761	3.1200e-003	3.8000e-004	37.1669
Parking Lot	7700	1.3656	1.2000e-004	1.0000e-005	1.3726
Total		38.3417	3.2400e-003	3.9000e-004	38.5395

6.0 Area Detail

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639
Unmitigated	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0155	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639
Total	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639

Terrano II Apartments - Riverside-South Coast County, Annual

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	0.0160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0155	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639
Total	0.2136	5.9400e-003	0.5158	3.0000e-005		2.8600e-003	2.8600e-003		2.8600e-003	2.8600e-003	0.0000	0.8436	0.8436	8.1000e-004	0.0000	0.8639

7.0 Water Detail

7.1 Mitigation Measures Water

Terrano II Apartments - Riverside-South Coast County, Annual

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	12.6028	0.1071	2.6200e-003	16.0632
Unmitigated	12.6028	0.1071	2.6200e-003	16.0632

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.2577 / 2.05377	12.6028	0.1071	2.6200e-003	16.0632
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		12.6028	0.1071	2.6200e-003	16.0632

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.2577 / 2.05377	12.6028	0.1071	2.6200e-003	16.0632
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		12.6028	0.1071	2.6200e-003	16.0632

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.6688	0.2759	0.0000	11.5667
Unmitigated	4.6688	0.2759	0.0000	11.5667

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23	4.6688	0.2759	0.0000	11.5667
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		4.6688	0.2759	0.0000	11.5667

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	23	4.6688	0.2759	0.0000	11.5667
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		4.6688	0.2759	0.0000	11.5667

9.0 Operational Offroad

Terrano II Apartments - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

NOISE ASSESSMENT

Terrano II Multi-Family Development City of Corona

Prepared for:

**Rexco Development
1285 Corona Pointe Court Suite 102
Corona, CA 92879**

Prepared By:

Ldn Consulting, Inc.
**42428 Chisolm Trail
Murrieta, CA 92562**

January 31, 2023

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GLOSSARY OF COMMON TERMS

Sound Pressure Level (SPL): a ratio of one sound pressure to a reference pressure (L_{ref}) of 20 μ Pa. Because of the dynamic range of the human ear, the ratio is calculated logarithmically by $20 \log (L/L_{ref})$.

A-weighted Sound Pressure Level (dBA): Some frequencies of noise are more noticeable than others. To compensate for this fact, different sound frequencies are weighted more.

Minimum Sound Level (L_{min}): Minimum SPL or the lowest SPL measured over the time interval using the A-weighted network and slow time weighting.

Maximum Sound Level (L_{max}): Maximum SPL or the highest SPL measured over the time interval the A-weighted network and slow time weighting.

Equivalent sound level (L_{eq}): the true equivalent sound level measured over the run time. L_{eq} is the A-weighted steady sound level that contains the same total acoustical energy as the actual fluctuating sound level.

Day Night Sound Level (Ldn): Representing the Day/Night sound level, this measurement is a 24 –hour average sound level where 10 dB is added to all the readings that occur between 10 pm and 7 am. This is primarily used in community noise regulations where there is a 10 dB “Penalty” for nighttime noise. Typically, Ldn’s are measured using A weighting.

Community Noise Exposure Level (CNEL): The accumulated exposure to sound measured in a 24-hour sampling interval and artificially boosted during certain hours. For CNEL, samples taken between 7 pm and 10 pm are boosted by 5 dB; samples taken between 10 pm and 7 am are boosted by 10 dB.

Octave Band: An octave band is defined as a frequency band whose upper band-edge frequency is twice the lower band frequency.

Third-Octave Band: A third-octave band is defined as a frequency band whose upper band-edge frequency is 1.26 times the lower band frequency.

Response Time (F,S,I): The response time is a standardized exponential time weighting of the input signal according to fast (F), slow (S) or impulse (I) time response relationships. Time response can be described with a time constant. The time constants for fast, slow and impulse responses are 1.0 seconds, 0.125 seconds and 0.35 milliseconds, respectively.

EXECUTIVE SUMMARY

This noise study has been completed to determine the noise impacts associated with the development of the proposed Terrano II Multi-Family Residential project within the approved Dos Lagos Specific Plan EIR. The project consists of developing a 50-unit apartment complex on 2.96 acres. The project site is located east of Interstate 15, north of Dos Lagos Drive and West of Temescal Canyon Road in Planning Area 1 of the Dos Lagos Specific Plan in the City of Corona, CA.

Construction Noise

Construction noise levels at an average distance of 100 feet would attenuate or be reduced 6.0 dBA. Given this and the spatial separation of the equipment, the noise levels are projected to comply with the 75 dBA Leq exterior noise standard over 8 hours at the property lines. Additionally, Project construction noise levels are considered exempt if activities occur within the hours specified in the City of Corona Municipal Code, Section 17.84.040 of 7:00 a.m. and 8:00 p.m. Monday through Saturday and 10:00 a.m. 6:00 p.m. on Sundays and federal holidays. At the time of this analysis, no Project construction activity is planned outside of the specified hours. Therefore, no impacts are anticipated and no mitigation is required during construction of the proposed Project. Additionally, all equipment should be properly fitted with mufflers and all staging and maintenance should be conducted as far away for the existing residence as possible.

Construction Vibration

The Federal Transit Administration (FTA) has determined vibration levels that would cause annoyance to a substantial number of people and potential damage to building structures. The FTA criterion for vibration induced structural damage is 0.20 in/sec for the peak particle velocity (PPV). The FTA criterion for infrequent vibration induced annoyance is 80 Vibration Velocity (VdB) for residential uses.

The nearest vibration-sensitive uses are the residences located to the west, 50 feet or more from the proposed construction. The average vibration levels that would be experienced at the nearest vibration sensitive land uses to the east from temporary construction activities were found to be below 0.2 in/sec. Project construction activities would result in PPV levels below the FTA's criteria for vibration induced structural damage. Therefore, Project construction activities would not result in vibration induced structural damage to residential buildings near the demolition and construction areas. Construction activities were found to generate levels of vibration below 80 VdB and would not exceed the FTA criteria for nuisance for nearby residential uses. Therefore, vibration impacts would be less than significant.

Onsite Transportation Noise

It was determined that the outdoor use areas provided by the common recreation area and the private patios and balconies were found to comply with the City of Corona Noise standards of 65 dBA CNEL without mitigation measures.

An interior noise level reduction of 24 dBA CNEL is needed for the proposed residential units. Based on the preliminary architectural plans provided by Summa Architecture, to meet the 45 dBA CNEL interior noise standard, a minimum STC 28 rated dual pane windows and mechanical ventilation is needed to achieve the necessary interior noise reductions to meet the City's standard for the residential units.

Once the final architectural plans are prepared, the proposed project site will require an interior noise study be prepared prior to the issuance of building permits to determine the detailed components to reduce interior noise to 45 dBA CNEL.

Offsite Transportation Noise

The Project does not create a direct and cumulative noise increase of more than 3 dBA CNEL on the nearby roadways. Therefore, the Project's direct contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

1.0 PROJECT INTRODUCTION

1.1 Purpose of this Study

The purpose of this Noise study is to determine any potential noise impacts due to the proposed construction of the proposed project and also to determine potential noise impacts (if any) to the proposed project generated from offsite sources. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less than significant.

1.2 Project Location

The Project site is located in the City of Corona, in the western portion of Riverside County. A general project vicinity map is shown in Figure 1-A. The project site is located east of Interstate 15 and north of Dos Lagos Drive, at the northwest and southwest intersection of Temescal Canyon Road and Fashion Drive in Planning Area 1 of the Dos Lagos Specific Plan within the City of Corona. The project site is bounded to the north by the Home2 Suites by Hilton Hotel, to the west by existing apartments, to the south by a 76 gas station, and to the east by Temescal Canyon Road. Existing retail uses are located further north along Temescal Canyon Road. Existing residential uses are located to the east across Temescal Canyon Road.

1.3 Project Description and Purpose

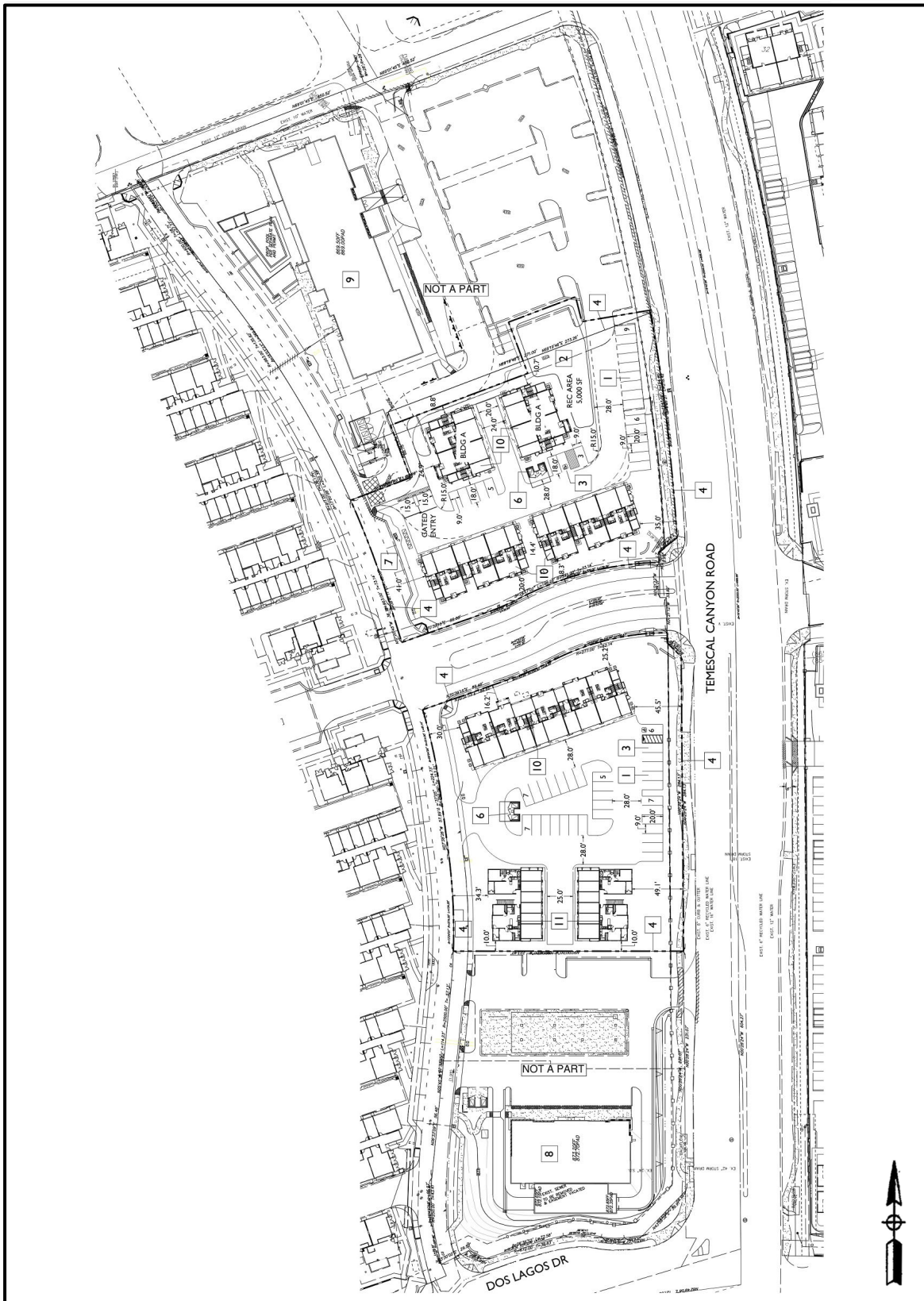
The proposed project will consist of 50 multi-family units consisting of two-story townhomes and three-story flats across 7 buildings as shown in the Project site configuration provided in Figure 1-B. The homes will range from approximately 700 square feet (s.f.) to 1,300 s.f. and feature one to three bedrooms, depending on the home plan and layout.

Figure 1-A: Project Vicinity Map



Source: Google Maps

Figure 1-B: Project Configuration



Source: Summa Architecture, 2023

2.0 FUNDAMENTALS

2.1 Acoustical Fundamentals

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs and when the noise occurs. Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise whereas the equivalent sound level depicted as L_{eq} represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval.

The Community Noise Equivalent Level (CNEL) is the 24-hour A-weighted average for sound, with corrections or penalties for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of 10 decibels to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sounds appear louder.

A vehicles noise level is generated from a combination of noise produced by the engine, exhaust and tires. The cumulative traffic noise levels along a roadway segment are based on three primary factors: the amount of traffic, the travel speed of the traffic, and the vehicle mix ratio or number of medium and heavy trucks. The intensity of traffic noise is increased by higher traffic volumes, greater speeds and increased number of trucks.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore, the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiant in an almost oblique fashion from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions.

Hard site conditions consist of concrete, asphalt and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas and vegetation. On the other hand, fixed/point sources radiate outward uniformly as it travels away from the source. Their sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers or relocating the receiver. Any or all of these methods may be required to reduce noise levels to an acceptable level.

2.2 Vibration Fundamentals

Vibration is a trembling or oscillating motion of the ground. Like noise, vibration is transmitted in waves, but in this case through the ground or solid objects. Unlike noise, vibration is typically felt rather than heard. Vibration can be either natural as in the form of earthquakes, volcanic eruptions, or manmade as from explosions, heavy machinery, or trains. Both natural and manmade vibration may be continuous, such as from operating machinery; or infrequent, as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways: displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 2-1 shows the human reaction to various levels of peak particle velocity.

Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, it is less common, to measure traffic frequencies above 30 Hz.

Propagation of ground-borne vibrations is complicated and difficult to predict because of the endless variations in the soil through which the waves travel. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by dropping an object into water. P-waves, or compression waves, are waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced

with distance as a result of material damping in the form of internal friction, soil layering, and special voids. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

Table 2-1: Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: Caltrans, Division of Environmental Analysis, *Transportation Related Earthborne Vibration, Caltrans Experiences*, Technical Advisory, Vibration, TAV-02-01-R9601, 2020 (Caltrans, 2020).

3.0 SIGNIFICANCE THRESHOLDS AND STANDARDS

3.1 Construction Noise

To control noise impacts associated with the construction of the proposed Project, the City has established limits to the hours of operation. Section 17.84.040 of the City's Municipal Code indicates that construction noise is prohibited between the hours of 8:00 p.m. to 7:00 a.m., Monday through Saturday and 6:00 p.m. to 10:00 a.m. on Sundays and federal holidays. Construction noise is defined as noise which is disturbing, excessive or offensive and constitutes a nuisance involving discomfort or annoyance to persons of normal sensitivity residing in the area, which is generated by the use of any tools, machinery or equipment used in connection with construction operations. The City of Corona Municipal Code effectively considers construction noise as exempt if construction noise is limited to the permitted hours of activity.

Neither the General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a substantial temporary or periodic noise increase. To allow for a quantified determination of what the City of Corona Municipal Code constitutes as noise that may be detrimental to the public health, safety or general welfare due to Project construction activity, relevant stationary source noise standards established in Table 1 of Section 17.84.040 are used in this analysis to assess the Project construction noise levels at nearby sensitive receivers. Table 1 of Section 17.84.040 establishes a maximum allowable exterior noise level standard for residential land use of 55 dBA L_{50} for a cumulative period of more 30 minutes in any hour. This same noise standard limits the exterior noise levels to the noise standard (55 dBA) plus 20 dBA for any period of time. This effectively limits the maximum noise level to 75 dBA L_{max} . Therefore, consistent with the City of Corona Municipal Code, an exterior noise level of 75 dBA L_{max} is used to describe the maximum acceptable threshold for determining the impacts due to Project construction for sensitive receivers.

3.2 Transportation Noise Standards

To control transportation related noise sources such as arterial roads, freeways, airports and railroads; the City of Corona has established guidelines for acceptable community noise levels in the City of Corona General Plan and Municipal Code. For noise sensitive residential uses, the City has established acceptable exterior noise levels of less than 65 dBA CNEL for outdoor living areas of multi-family dwellings. The applicable thresholds of the City of Corona are provided in Figure 3-A.

California Noise Insulation Standards (California Code of Regulations, Title 24) and the City of Corona Noise Code establish an interior noise standard of 45 dBA for multiple unit and hotel/motel structures. Acoustical studies must be prepared for multiple unit residential and hotel/motel

structures that are proposed to be located within the Community Noise Equivalent Level (CNEL) noise contours of 60 dBA or greater. In addition, the City requires all proposed residential structures located within the CNEL noise contours of 60 or greater to prepare an acoustical study. The studies must demonstrate that the building is designed to reduce interior noise to 45 dBA (CNEL) or lower.

Figure 3-A: Land Use Noise Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	<55	60	65	70	75	80>	
Residential	Single Family, Duplex	A	A	B	B	D	D	D
	Multiple Family	A	A	B	B	C	D	D
	Hotel, Motel Lodging	A	A	B	C	C	D	D
Commercial Regional, District	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	B	B	C	C	D
Commercial Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial Office, Institution	Office Building, R&D, Professional Offices, City Office Building	A	A	A	B	B	C	D
Rec. Institutional Civic Center	Amphitheatre, Concert Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Amusement Park, Miniature Golf, Sports Club, Equestrian Center	A	A	A	B	B	D	D
Commercial, General, Special, Industrial, and Institutional	Auto Service Station, Auto Dealer, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional General	Hospital, Church, Library, Schools' Classroom	A	A	B	C	C	D	D
Open Space	Local, Community, and Regional Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemetery, Nature Centers Wildlife Reserves and Habitat	A	A	A	A	B	C	C

Zone A: Clearly Compatible: Specified land use is satisfactory, based on the assumption that any buildings involved are of conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible: New construction should be undertaken only after detailed analysis of the noise reduction requirements and needed noise insulation features are determined. Conventional construction, with closed windows and fresh air supply or air conditioning, will normally suffice.

Zone C: Normally Incompatible: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible: New development should generally not be undertaken.

3.3 Construction Vibration Standards

The City of Corona has not identified or adopted vibration standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for human annoyance and 90 VdB for building damage at noise-sensitive uses and buildings where people normally sleep. Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. While not enforceable regulations within the City of Corona, the FTA guidelines of 80 VdB for annoyance and 90 VdB for building damage at sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts.

4.0 CONSTRUCTION NOISE AND VIBRATION

4.1 Construction Noise Methodology

Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders and scrapers can reach relatively high levels. Grading activities typically represent one of the highest potential sources for noise impacts. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours.

The U.S. Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment. Noise levels generated by heavy construction equipment can range from 60 dBA to in excess of 100 dBA when measured at 50 feet. However, these noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 75 dBA measured at 50 feet from the noise source to the receptor would be reduced to 69 dBA at 100 feet from the source to the receptor and reduced to 63 dBA at 200 feet from the source. Additionally, sound levels are logarithmic not linear, so adding two sources of 68 dBA plus 68 dBA is equal to 71 dBA not 136 dBA.

Using a point-source noise prediction methodology, calculations of the expected construction noise impacts were completed using the equation below. The essential model input data for these performance equations include the source levels of each type of equipment, relative source to receiver horizontal and vertical separations, the amount of time the equipment is operating in a given day, also referred to as the duty-cycle and any transmission loss from topography or barriers.

$$L = 10 * \text{Log} \left(\sum_{i=1}^n 10^{\left(\frac{L_i}{10}\right)} \right)$$

For the grading phase, the equipment needed for the development will consist of a medium sized crawler type excavator, a small to medium sized road grader, a large rubber tired bulldozer, and two tractors/loaders/backhoes. Based on the EPA noise emissions, empirical data and the amount of equipment needed, worst case noise levels from the construction equipment for site preparation would occur during the grading operations.

4.2 Findings and Mitigation for Grading Activities

The grading activities will consist of the preparation of internal roadways, parking and the finished pads. The site has been previously mass graded and the existing grades are already at or near the proposed final grades, therefore, grading would be limited to precise grading activities. The

equipment will be spread out over the project site from distances near the occupied property lines to distances of 100 feet or more away. The nearest sensitive receptors are the existing residential land uses to the east. The list of equipment and the associated noise levels utilized in this analysis are shown in Table 4-1. The grading equipment will be spread out over the project site from distances near the occupied property lines to distances of 200 feet or more away. Based upon the site plan, on average, the grading operations will occur 100 feet from the property lines. This means that the average distance from all the equipment to the nearest property line is 100 feet. As can be seen in Table 4-1, at an average distance of 100 feet from the construction activities to the nearest property line would result in a noise attenuation of -6.0 dBA without shielding. Additionally, the amount of time equipment is operating during a normal work day, referred to as duty-cycle, was assumed to be 8 hours.

Table 4-1: Grading Construction Noise Levels

Construction Equipment	Quantity	Source Level @ 50-Foot (dBA Leq)¹	Duty Cycle (Hours/Day)	Cumulative Noise Level @ 50-Foot (dBA Leq-8)
Rubber Tire Dozer	1	74	8	74.0
Excavator	1	72	8	72.0
Grader	1	73	8	73.0
Tractors/Loaders/Backhoes	2	72	8	75.0
Cumulative Levels @ 50 Feet				79.7
Average Distance to Property Line (Feet)				100
Noise Reduction Due to Distance				-6.0
NEAREST PROPERTY LINE NOISE LEVEL				73.7
¹ Source: Empirical Data				

Given this, the noise levels will comply with the 75 dBA Leq exterior noise standard over 8 hours at the property lines. Additionally, Project construction noise levels are considered exempt if activities occur within the hours specified in the City of Corona Municipal Code, Section 17.84.040 of 7:00 a.m. and 8:00 p.m. Monday through Saturday and 10:00 a.m. 6:00 p.m. on Sundays and federal holidays. At the time of this analysis, no Project construction activity is planned outside of the specified hours. Therefore, no impacts are anticipated and no mitigation is required during construction of the proposed Project. Additionally, all equipment should be properly fitted with mufflers and all staging and maintenance should be conducted as far away from the existing residences as possible.

4.3 Findings and Mitigation for Construction Vibration

The nearest vibration-sensitive uses are the residences located to the west of the project site, 50 feet or more from the proposed construction. Table 4-2 lists the average vibration levels that would be experienced at the nearest vibration sensitive land uses to the east from temporary construction activities. Loaded trucks will be traveling along the western portion of the site and were assessed at a minimum distance of 50 feet from to be conservative.

The FTA has determined vibration levels that would cause annoyance to a substantial number of people and potential damage to building structures. The FTA criterion for vibration induced structural damage is 0.20 in/sec for the peak particle velocity (PPV). Project construction activities would result in PPV levels below the FTA’s criteria for vibration induced structural damage. Therefore, Project construction activities would not result in vibration induced structural damage to residential buildings near the construction areas. The FTA criterion for infrequent vibration induced annoyance is 80 Vibration Velocity (VdB) for residential uses. Construction activities would generate levels of vibration that would not exceed the FTA criteria for nuisance for nearby residential uses. Therefore, vibration impacts would be less than significant.

Table 4-2: Vibration Levels from Construction Activities (Residential Receptors)

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS Velocity at 25 Feet (in/sec)	Approximate Velocity Level at 50 Feet (VdB) ¹	Approximate RMS Velocity at 50 Feet (in/sec) ²
Small bulldozer	58	0.003	46.0	0.0011
Jackhammer	79	0.035	67.0	0.0124
Loaded trucks	86	0.076	74.0	0.0269
Large bulldozer	87	0.089	75.0	0.0315
FTA Criteria			80	0.2
Significant Impact?			No	No
¹ VdB = VdB(25 feet) – 30log(d/25) provided by the FTA ² PPV at Distance D = PPVref x (25/D) ^{1.5} provided by the FTA				

5.0 TRANSPORTATION NOISE

5.1 Existing Noise Environment Onsite

Noise measurements were taken using a Larson-Davis Model LxT Type 1 precision sound level meter, programmed, in "slow" mode, to record noise levels in "A" weighted form. The sound level meter and microphone were mounted on a tripod, five feet above the ground and equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200.

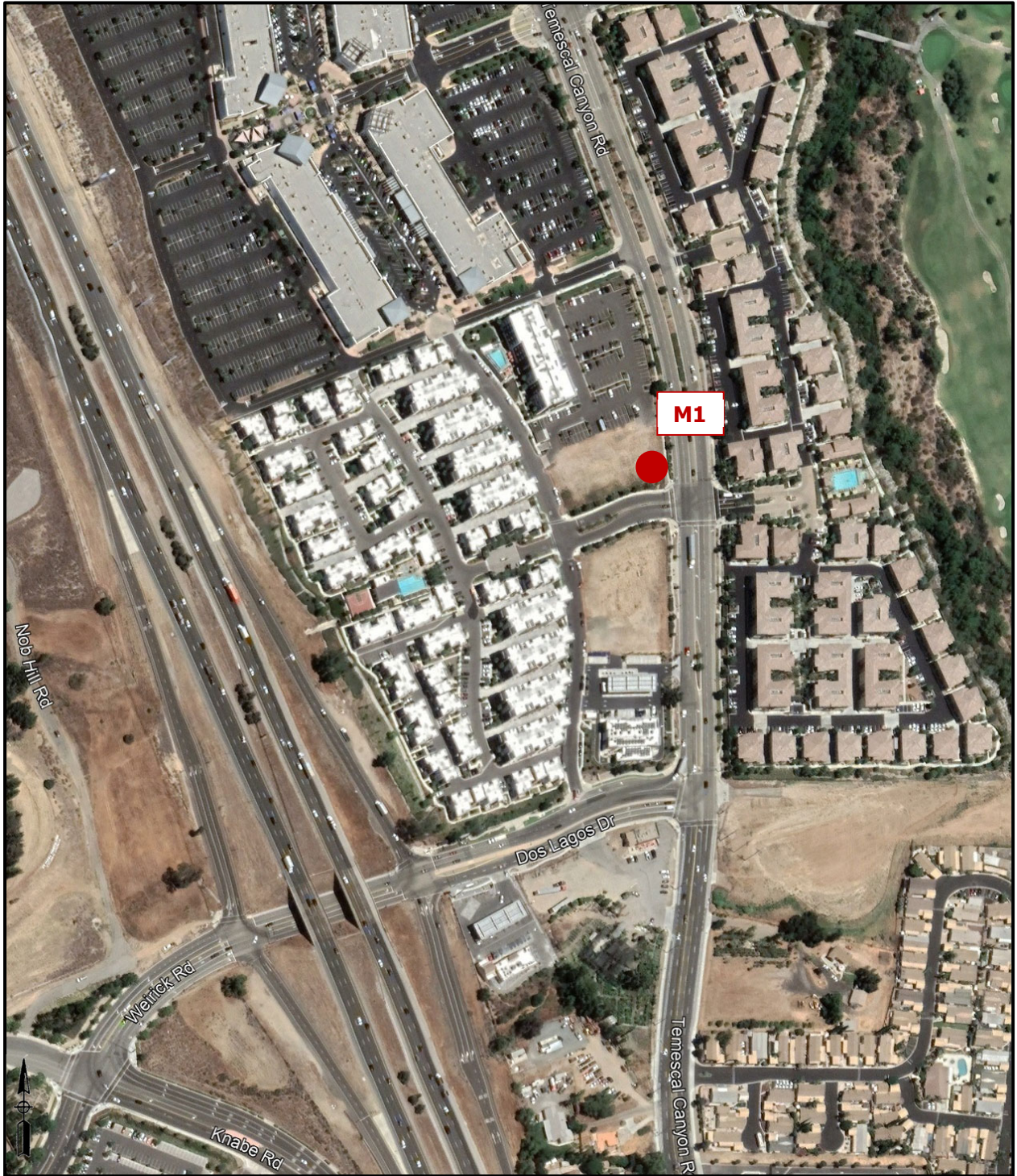
Monitoring location 1 (ML1) was located at the eastern portion of the project site. The results of the noise level measurement are presented in Table 5-1.

The noise measurement was monitored for a time period of 15 minutes during typical traffic conditions. The existing noise levels in the project area consisted primarily of traffic from Temescal Canyon Road. The ambient Leq noise levels measured in the area of the Project during the afternoon hours was found to be 59.8 dBA. The statistical indicators Lmax, Lmin, L10, L50 and L90, are given for the monitoring location. As can be seen from the L90 data, 90% of the time the noise level is approximately 54 dBA from Temescal Canyon Road. The noise monitoring locations are provided graphically in Figure 5-A.

Table 5-1: Measured Ambient Noise Levels

Measurement Identification	Description	Time	Noise Levels (dBA)					
			Leq ₁₅	Lmax	Lmin	L10	L50	L90
M1	Temescal Canyon Road	11:00 – 11:15 a.m.	59.8	66.7	51.2	63.1	58.2	54.0
Source: Ldn Consulting November 29, 2022								

Figure 5-A: Ambient Monitoring Locations



5.2 Future Onsite Noise Prediction

To determine the future noise environment and impact potentials the Caltrans Sound32 noise model was utilized. The critical model input parameters, which determine the projected vehicular traffic noise levels, include vehicle travel speeds, the percentages of automobiles, medium trucks and heavy trucks in the roadway volume, the site conditions (hard or soft) and the peak hour traffic volume. The peak hour traffic volumes along most roadways range between 6-10% of the average daily traffic (ADT). The capacity in a single freeway lane is 1,950 vehicles per hour due to shortened headways between vehicles (Source: Caltrans). Thus, peak hour traffic values along Interstate 15 were calculated using a worst-case scenario capacity of 1,950 vehicles per hour per lane operating at a Level of Service C.

Table 5-2 presents the roadway parameters used in the analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks and heavy trucks. A traffic mix of 94.39/1.95/3.66 was utilized for Interstate 15 based on Caltrans Annual Average Truck Trip volumes. The Buildout peak hour traffic volume forecasts along Dos Lagos Drive and Temescal Canyon Road were provided in the Terrano at Dos Lagos Traffic Impact Analysis Report by LLG, 2015. The peak hour traffic volumes range between 6-12% of the average daily traffic (ADT). Per the Caltrans Technical Noise Supplement (November, 2009), 10 percent of the average daily traffic volumes were entered into the noise model to provide a CNEL-equivalent noise output.

The required coordinate information necessary for the Sound32 traffic noise prediction model input was taken from the conceptual site plans provided by Summa Architecture, January 2023. To determine the future noise levels, the site plans were used to identify the pad elevations, the roadway elevations and the relationship between the noise source(s) and the receptors. To evaluate the future potential noise impacts on the proposed development, outdoor observers were located in the outdoor areas and modeled observers were placed five feet above the finished pad elevation. The modeled observer locations for the most affected units are presented in Figure 5-B.

Table 5-2 on the following page describes the roadway parameters used in the analysis including the peak traffic volumes, vehicle speeds and the hourly traffic flow distribution (vehicle mix) for the future Buildout conditions. The vehicle mix provides the hourly percentages of automobile, medium trucks and heavy trucks for input into the model.

Figure 5-B: Modeled Receptor Locations

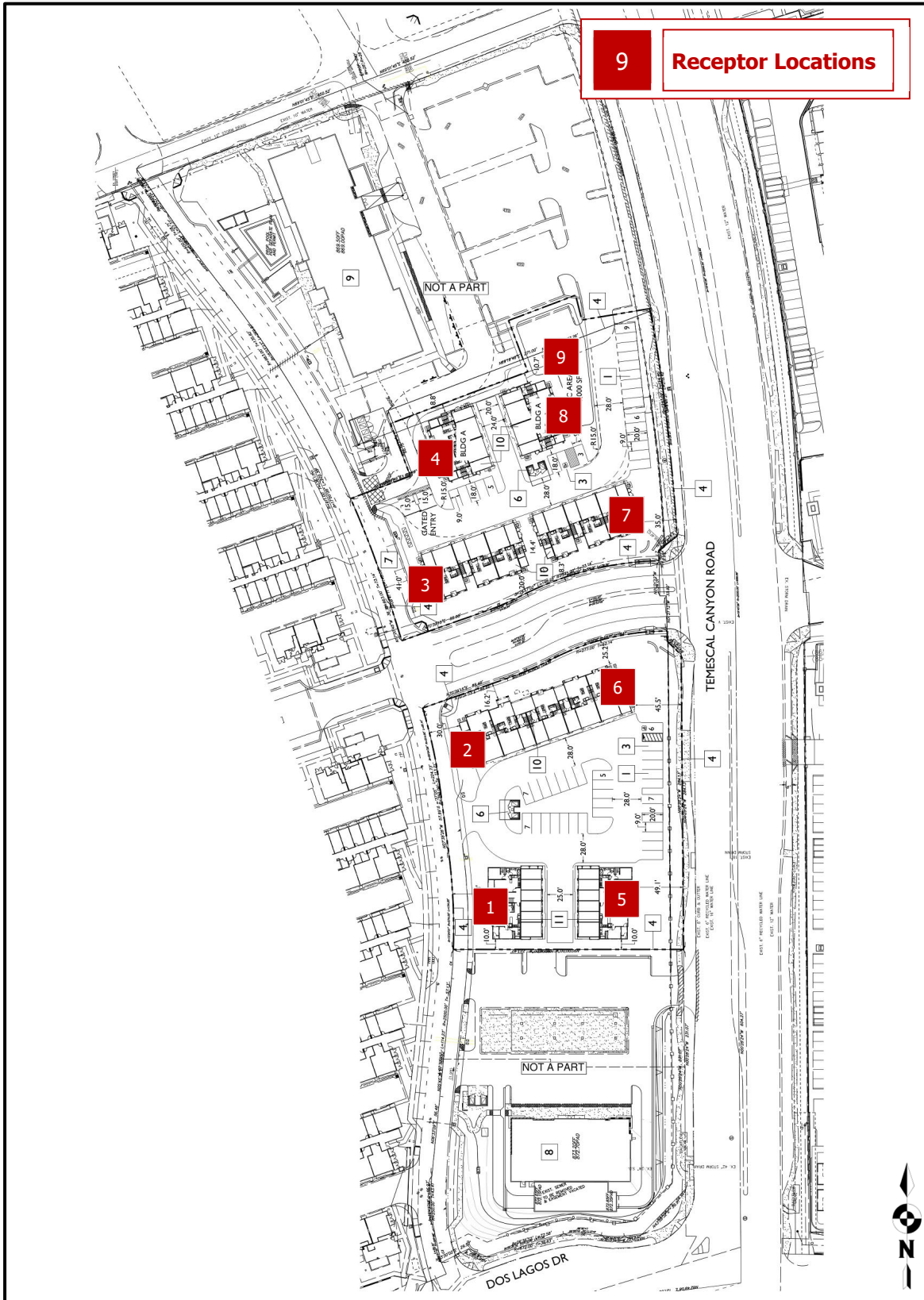


Table 5-2: Future Traffic Parameters

Roadway	Future Peak Hour Traffic (ADT)	Modeled Speeds (MPH)	Vehicle Mix % ²		
			Auto	Medium Trucks	Heavy Trucks
Interstate 15	15,600	65	94.39	1.95	3.66
Temescal Canyon Road	2,315 ¹	45	97.42	1.84	0.74
Dos Lagos Drive	1,238 ¹	35	97.42	1.84	0.74

¹ Source: Terrano at Dos Lagos Traffic Study, LLG 2015
² Typical Vehicle Mixed observed in Southern California was used for local roadways.

Outdoor usable space is provided by the common recreational area located in the northeast portion of the project site and by the private patios and balconies at the units. The proposed patios and balconies will be partially shielded from the roadways by the proposed building facades. Typically, three decibels of attenuation is allowed for the first row of buildings when they block 40 to 65% of the line of sight to the noise source, and three to five decibels of attenuation is allowed when the buildings obstruct more than 65% of the line of sight (Source: CALTRANS Technical Noise Supplement Section N-5515). Based on the architectural plans, the proposed patios and balconies will be tucked into the building and will be shielded on one or both sides by the proposed building facades, therefore a factor of 5 dBA was taken into account.

5.3 Exterior Noise Findings and Mitigation

The modeling results for the Buildout analysis are quantitatively shown in Table 5-3. The line of sight at the patios and balconies will be blocked by the proposed building facades, therefore a factor of 5 dBA was taken into account. Therefore, the outdoor use areas were found to comply with the City of Corona’s Noise Standard of 65 dBA CNEL without mitigation. The modeling inputs and outputs are provided as **Attachment A**.

5.4 Interior Noise Levels

The City requires for residential developments an interior noise limit of 45 dBA CNEL for all residential uses. Based on numerous studies and efficiency standards in current residential Title 24 standards, residential structures provide 15 decibels of reduction with the windows open to the indoor uses and 25 decibels of reduction with the windows closed. This assumes a minimum sound transmission rating (STC) of 28 on the glass assemblies, which is a standard assembly. To maintain a 45 dBA noise level within the residential structures, the building façade noise should be 70 dBA or less. It should be noted: if better/higher STC rated glass assemblies are installed the noise levels would be reduced more than 25 decibels. Therefore, this is a conservative approach.

Table 5-3: Future Exterior Noise Levels

Receptor Number	First Floor Noise Levels (dBA CNEL)	Second Floor Noise Level (dBA CNEL)	Third Floor Noise Level (dBA CNEL)
1	62	65	65
2	61	64	65
3	61	63	64
4	61	63	64
5	66	69	69
6	66	69	69
7	67	69	69
8	64	67	67
Recreation Area	64	--	--

*Noise levels at the proposed patios/balconies will be reduced 5 dBA due to shielding from the building

5.5 Project Related Offsite Transportation Noise

To determine if direct or cumulative off-site noise level increases associated with the development of the proposed project would create noise impacts. The traffic volumes for the existing conditions were compared with the traffic volume increase of existing plus the proposed project. According to the Project traffic study (Linscott Law & Greenspan, 2023), the project is estimated to only generate 337 daily trips with a peak hour volume of 26 trips. The existing average daily traffic (ADT) volumes on the area roadways are more than several thousand ADT. Typically it requires a project to double (or add 100%) the traffic volumes to have a direct impact of 3 dBA CNEL or be a major contributor to the cumulative traffic volumes. The project will add less than a 5% increase to the exiting roadway volumes and no direct or cumulative impacts are anticipated.

6.0 REFERENCES

- Caltrans. (2006). *Technical Noise Supplement Section N-5515*. Retrieved from <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>
- Federal Transit Administration. (2018). *Transit Noise and Vibration Impact Assessment Manual*.
- FHWA. (1978). *Highway Traffic Noise Prediction Model*. FHWA-RD-77-108.
- Linscott Law & Greenspan. (2023). *Traffic Circulation Assessment for the Proposed Terrano II Apartments at Dos Lagos Project*. Retrieved from https://www.jurupavalley.org/DocumentCenter/View/1979/Appendix-N_Noise-Impact-Analysis?bidId=

ATTACHMENT A

DETAILED FUTURE NOISE MODEL INPUT AND OUTPUT FILES

TERRANO II GROUND LEVEL UNMITIGATED

T-PEAK HOUR TRAFFIC CONDITIONS, 1

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 2

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 3

2255 , 45 , 43 , 45 , 17 , 45

T-PEAK HOUR TRAFFIC CONDITIONS, 4

1206 , 35 , 23 , 35 , 9 , 35

T-PEAK HOUR TRAFFIC CONDITIONS, 5

1020 , 45 , 19 , 45 , 8 , 45

L-I-15 NB, 1

N,441,1342,930,

N,751,1476,931,

N,1907,1977,928,

N,2227,2116,927,

L-I-15 SB, 2

N,395,1448,930,

N,714,1586,931,

N,1862,2081,928,

N,2183,2220,927,

L-TEMESCAL CANYON, 3

N,654,675,870,

N,1003,677,869,

N,1627,682,866,

N,1849,695,867,

N,2104,742,868,

N,2343,817,869,

L-DOS LAGOS, 4

N,682,1680,913,

N,801,1328,900,

N,852,1179,895,

N,894,1071,889,

N,947,960,882,

N,978,857,874,

N,1003,677,868,

L-ON-RAMP, 5

N,801,1328,900,

N,1395.,1659,919,

N,1578.,1761,923,

N,1918.,1951,928,

B-FREEWAY TS-1, 1 , 2 , 0 ,0

449.,1323,930,930,

757.,1457,931,931,

B-FREEWAY TS-2, 2 , 2 , 0 ,0

759.,1458,931,931,

1915.,1958,928,928,

B-SITE TS WEST, 3 , 2 , 0 ,0

1102.,1432,910,910,

1251.,1522,913,913,

1257.,1568,913,913,

1410.,1653,919,919,

1588.,1751,923,923,

1639.,1709,923,923,

1752.,1777,927,927,

1954.,1881,928,928,

2270.,2025,927,927,

B-SITE TS EAST, 4 , 2 , 0 ,0

1063.,955,879,879,

1027.,935,879,879,
1032.,908,877,877,
1051.,832,873,873,
1049.,779,871,871,
1080.,735,869,869,
1622.,736,866,866,
1841.,750,867,867,
2086.,797,868,868,
2326.,876,869,869,
B-DL TS WEST, 5 , 1 , 0 ,0
1102.,1432,910,910,
958.,1354,901,901,
895.,1287,899,899,
931.,1170,893,893,
1009.,983,882,882,
1069.,995,881,881,
R, 1 , 65 ,10
1370,918,878.,
R, 2 , 65 ,10
1547,953,878.,
R, 3 , 65 ,10
1685,982,878.,
R, 4 , 65 ,10
1793,975,878.,
R, 5 , 65 ,10
1370,787,878.,
R, 6 , 65 ,10
1575,788,878.,
R, 7 , 65 ,10
1727,781,878.,
R, 8 , 65 ,10
1826,841,878.,
R, 9 , 65 ,10
1878,846,878.,REC
D, 4.5
1 ,ALL
D, 4.5
2 ,ALL
D, 4.5
3 ,ALL
D, 4.5
4 ,ALL
D, 4.5
5 ,ALL
K,-5
1 ,ALL
K,-5
2 ,ALL
K,-5
4 ,ALL
K,-5
5 ,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:

TERRANO II GROUND LEVEL UNMITIGATED

REC REC ID DNL PEOPLE LEQ(CAL)

1 R-1 65. 10. 61.8
2 R-2 65. 10. 61.3
3 R-3 65. 10. 60.9
4 R-4 65. 10. 60.8
5 R-5 65. 10. 66.3
6 R-6 65. 10. 66.3
7 R-7 65. 10. 67.1
8 R-8 65. 10. 64.4
9 REC 65. 10. 64.4

TERRANO II SECOND LEVEL UNMITIGATED

T-PEAK HOUR TRAFFIC CONDITIONS, 1

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 2

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 3

2255 , 45 , 43 , 45 , 17 , 45

T-PEAK HOUR TRAFFIC CONDITIONS, 4

1206 , 35 , 23 , 35 , 9 , 35

T-PEAK HOUR TRAFFIC CONDITIONS, 5

1020 , 45 , 19 , 45 , 8 , 45

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N,751,1476,931,

N,1907,1977,928,

N,2227,2116,927,

L-I-15 SB, 2

N,395,1448,930,

N,714,1586,931,

N,1862,2081,928,

N,2183,2220,927,

L-TEMESCAL CANYON, 3

N,654,675,870,

N,1003,677,869,

N,1627,682,866,

N,1849,695,867,

N,2104,742,868,

N,2343,817,869,

L-DOS LAGOS, 4

N,682,1680,913,

N,801,1328,900,

N,852,1179,895,

N,894,1071,889,

N,947,960,882,

N,978,857,874,

N,1003,677,868,

L-ON-RAMP, 5

N,801,1328,900,

N,1395.,1659,919,

N,1578.,1761,923,

N,1918.,1951,928,

B-FREEWAY TS-1, 1 , 2 , 0 ,0

449.,1323,930,930,

757.,1457,931,931,

B-FREEWAY TS-2, 2 , 2 , 0 ,0

759.,1458,931,931,

1915.,1958,928,928,

B-SITE TS WEST, 3 , 2 , 0 ,0

1102.,1432,910,910,

1251.,1522,913,913,

1257.,1568,913,913,

1410.,1653,919,919,

1588.,1751,923,923,

1639.,1709,923,923,

1752.,1777,927,927,

1954.,1881,928,928,

2270.,2025,927,927,

B-SITE TS EAST, 4 , 2 , 0 ,0

1063.,955,879,879,

1027.,935,879,879,
1032.,908,877,877,
1051.,832,873,873,
1049.,779,871,871,
1080.,735,869,869,
1622.,736,866,866,
1841.,750,867,867,
2086.,797,868,868,
2326.,876,869,869,
B-DL TS WEST, 5 , 1 , 0 ,0
1102.,1432,910,910,
958.,1354,901,901,
895.,1287,899,899,
931.,1170,893,893,
1009.,983,882,882,
1069.,995,881,881,
R, 1 , 65 ,10
1370,918,888.,
R, 2 , 65 ,10
1547,953,888.,
R, 3 , 65 ,10
1685,982,888.,
R, 4 , 65 ,10
1793,975,888.,
R, 5 , 65 ,10
1370,787,888.,
R, 6 , 65 ,10
1575,788,888.,
R, 7 , 65 ,10
1727,781,888.,
R, 8 , 65 ,10
1826,841,888.,
D, 4.5
1 ,ALL
D, 4.5
2 ,ALL
D, 4.5
4 ,ALL
D, 4.5
5 ,ALL
K,-5
1 ,ALL
K,-5
2 ,ALL
K,-5
4 ,ALL
K,-5
5 ,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:

TERRANO II SECOND LEVEL UNMITIGATED

REC REC ID DNL PEOPLE LEQ(CAL)

1 R-1 65. 10. 64.9
2 R-2 65. 10. 63.5
3 R-3 65. 10. 62.8
4 R-4 65. 10. 63.1
5 R-5 65. 10. 68.6
6 R-6 65. 10. 68.6
7 R-7 65. 10. 69.2
8 R-8 65. 10. 67.2

TERRANO II THIRD LEVEL UNMITIGATED

T-PEAK HOUR TRAFFIC CONDITIONS, 1

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 2

5522 , 65 , 114 , 65 , 214 , 65

T-PEAK HOUR TRAFFIC CONDITIONS, 3

2255 , 45 , 43 , 45 , 17 , 45

T-PEAK HOUR TRAFFIC CONDITIONS, 4

1206 , 35 , 23 , 35 , 9 , 35

T-PEAK HOUR TRAFFIC CONDITIONS, 5

1020 , 45 , 19 , 45 , 8 , 45

L-I-15 NB, 1

N,441,1342,930,

N,751,1476,931,

N,1907,1977,928,

N,2227,2116,927,

L-I-15 SB, 2

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1915.,1958,928,928,

B-SITE TS WEST, 3 , 2 , 0 ,0

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1257.,1568,913,913,

1410.,1653,919,919,

1588.,1751,923,923,

1639.,1709,923,923,

1752.,1777,927,927,

1954.,1881,928,928,

2270.,2025,927,927,

B-SITE TS EAST, 4 , 2 , 0 ,0

1063.,955,879,879,

1027.,935,879,879,
1032.,908,877,877,
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1049.,779,871,871,
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1841.,750,867,867,
2086.,797,868,868,
2326.,876,869,869,
B-DL TS WEST, 5 , 1 , 0 ,0
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895.,1287,899,899,
931.,1170,893,893,
1009.,983,882,882,
1069.,995,881,881,
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R, 8 , 65 ,10
1826,841,898.,
D, 4.5
1 ,ALL
D, 4.5
2 ,ALL
D, 4.5
4 ,ALL
D, 4.5
5 ,ALL
K,-5
1 ,ALL
K,-5
2 ,ALL
K,-5
4 ,ALL
K,-5
5 ,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:

TERRANO II THIRD LEVEL UNMITIGATED

REC REC ID DNL PEOPLE LEQ(CAL)

1 R-1 65. 10. 65.2
2 R-2 65. 10. 64.6
3 R-3 65. 10. 64.1
4 R-4 65. 10. 64.3
5 R-5 65. 10. 68.5
6 R-6 65. 10. 68.5
7 R-7 65. 10. 69.0
8 R-8 65. 10. 67.2

Ldn Consulting, Inc.

42428 Chisolm Trail, Murrieta CA 92562
www.ldnconsulting.net

phone 760-473-1253
fax 760-689-4943

January 31, 2023

Matt McKinlay
Rexco Development
1285 Corona Pointe Court Suite 102
Corona, CA 92879

RE: Terrano II Multi-Family Development at Dos Lagos Health Risk - City of Corona

The purpose of this Air Quality Health Risk screening letter is to identify potential health risks at the proposed project site from toxic air contaminants (TACs) originating from Interstate-15 (I-15). The proposed Project consists of developing a 50-unit apartment complex within the Dos Lagos Specific Plan. The project site is located within the City of Corona, CA.

This health risk analysis uses the California Office of Environmental Health Hazard Assessment (OEHHA) methodologies (Office of Environmental Health Hazard Assessment, 2015) as outlined by the California Air Pollution Control Officers Association (CAPCOA, July 2009).

Health risk impacts can exist when a project is exposed to toxic emissions and have the potential to impact nearby receptor. Sensitive receptors (and the facilities that house them) in proximity to sources of air pollutants that emit TACs are of particular concern. Exposure to TACs can increase the risk of contracting cancer or result in adverse non-cancer health effects. Non-cancer health risks associated with TAC exposure include birth defects and other reproductive damage, neurological disorders, and damage to the respiratory system (California Air Resources Board, 2005).

Generally, cancer risk can exist within 500-feet of a freeway or busy traffic corridor, but the risk will drop off with distance from a ground level pollution source. Freeways and busy traffic corridors are defined as traffic volume of over 100,000 vehicles per day in urban areas and 50,000 vehicles per day in rural areas (Education Code Section 17312). CARB studies show that air pollution levels can be significantly higher within 500 feet (150 meters) of freeways or busy traffic corridors (SCAQMD, 2005). Generally, in Riverside County, this is applied to education facilities however, it's reasonable to assess impacts for residential uses as well.

The City of Corona is generally regulated by South Coast Air Quality Management District (SCAQMD). Under SCAQMD guidance, excess cancer risk significance threshold is set at 10 in a million (SCAQMD, 2015).

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Cancer risk calculations are often presented on a 9, 30 or 70 year lifetime exposure duration. The 9 year exposure scenario is based on exposure to children during the first 9 years of life. Some districts use the 9 year exposure scenario to model short term projects. (CAPCOA, July 2009). For purposes of this analysis, it is reasonable to assume a 30 year duration. For purposes of modeling, AERMOD was used for air quality dispersion modeling and is the preferred/recommended U.S. Environmental Protection Agency (EPA) model for roadway modeling. The software has the ability to incorporate meteorological inputs as well as multiple source and receptor locations and is now used throughout the world. The model input/output is shown in ***Attachment A*** to this letter.

The project is adjacent to I-15 north of Dos Lagos Drive and south of Cajalco Road. According to Caltrans, the peak hour traffic is 11,400 trips and the average daily trips are 164,000 ADT (CALTRANS, 2013 Traffic Volumes on California State Highways, 2013). The EMFAC 2021 model was used to develop specific emissions rates for the ADT on the section modeled with AERMOD which was run for the 2025 scenario and is shown in ***Attachment B*** to this report. The County wide daily VMT from EMFAC was used to develop normalization factors to calculate ADTs by vehicle type (diesel specific) for the I-15 section analyzed which was ultimately used to derive the total diesel particulates in grams/day generated within the I-15 section analyzed. The emissions were then converted to grams/second which was utilized within AERMOD using a series of adjacent volume sources.

Modeling at the site included coordinates for I-15 and five receptor points which were selected from points on the project site (Receptors 1-5) and represent facility facades. The modeled locations are shown in Figure 1.

Based on discussions with the project applicant, all residential homes constructed as part of this project will have mechanical ventilation filtration systems consistent with the latest building codes such as California's Title 24. Typical indoor air filtration systems used within today's heating and ventilation systems within California and consistent with Title 24 have a Minimum Efficiency Reporting Value (MERV) rating of 13 (California Energy Commission, 2019).

The US Environmental Protection Agency indicates that MERV 13 filtration systems reduce particulates between 1 and 3 microns by 85% and particles less than 10 microns (PM₁₀) by 90% relative to outdoor ambient air (EPA, 2021).

The annual diesel particulate concentrations at the modeled receptors are summarized below in Table 1 and include the expected reductions within the interior of all residential structures which would have a minimum air filtration system of MERV 13. The modeled output emissions output curves from AERMOD are also shown in Figure 1 below.

Figure 1: AERMOD Emissions and Graphical Representation



The annual diesel particulate concentrations at the modeled receptors are summarized below in Table 1 and include the expected reductions within the interior of all residential structures which would have a minimum air filtration system of MERV 13.

Table 1: Annual DPM Concentrations at each Receptor

Discreet Receptor AERMOD Name	Concentration (µg/m ³)
REC 1	0.01735
REC 2	0.01881
REC 3	0.02014
REC 4	0.02142
REC 5	0.02179

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Cancer Risk Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose_{air}) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015):

Equation 1

$$Dose_{air} = C_{air} * (BR/BW) * A * EF * (1 \times 10^{-6})$$

- Dose_{air} = Dose through inhalation (mg/kg/d)
- C_{air} = Concentration in air (µg/m³) Annual average DPM concentration in µg/m³ – AERMOD
- BR/BW = Daily average breathing rates normalized to body weight (L/kg BW-day).
- A = Inhalation absorption factor (assumed to be 1)
- EF = Exposure frequency (unitless, days/365 days)
- 1x10⁻⁶ = Milligrams to micrograms conversion (10⁻³ mg/ µg), cubic meters to liters conversion (10⁻³ m³/l)

Once the dose is determined then you must calculate the cancer risk. The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor (mg/kg-day)⁻¹ will give the inhalation cancer risk (unitless), which is an expression of the chemical’s cancer risk during exposure. For example, an inhalation cancer risk of 5 x 10⁻⁶ is the same as stating that an

individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed.

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. The worst-case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015).

Equation 2 $RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$

- RISK_{inh-res} = Residential inhalation cancer risk
- DOSE_{air} = Daily inhalation dose (mg/kg-day)
- CPF = Inhalation cancer potency factor (mg/kg-day⁻¹)
- ASF = Age sensitivity factor for a specified age group (unitless)
- ED = Exposure duration (in years) for a specified age group
- AT = Averaging time for lifetime cancer risk (years)
- FAH = Fraction of time spent at home (unitless)

The results of the cancer risk calculations are shown in Table 2 below. The detailed model input/output is also provided as **Attachment C** to this report. Based on these calculations, cancer risks from DPM generated from SR-125 would not exceed the 10 per one million exposed thresholds within any units constructed within the Otoy Village 8 area.

Table 2: Cancer Risk at Worst-Case Indoor Receptors (MERV 8 Design Feature)

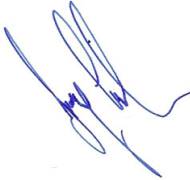
Receptor	C _i	Unmitigated Cancer Risk (30 Years)	Potential Impact
REC 1	0.01735	7.19	No
REC 2	0.01881	7.80	No
REC 3	0.02014	8.35	No
REC 4	0.02142	8.88	No
REC 5	0.02179	9.03	No
<small>C_i annual inputs from AERMOD within prospective building. Cancer Risk = DOSE_{air} × CPF × ASF × ED/AT × FAH</small>			

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It is important to note that this assessment serves simply as a disclosure document to providing a characterization of the background emissions that occupants of the proposed project may be exposed to. If you should have any questions regarding this assessment, please do not hesitate to contact me at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.



Jeremy Loudon

Attachments:

- A: AERMOD
- B: EMFAC 2021 Emission Factors – 2025
- C: Cancer Risk Calculations – Indoor

References:

California Air Resources Board. (2005). AIR QUALITY AND LAND USE HANDBOOK. Retrieved 2016, from <http://www.arb.ca.gov/ch/handbook.pdf>

California Energy Commission. (2019). *2019 Building Energy Efficiency Standards - What's New for Residential*. Retrieved from https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Residential_WhatsNew_ada.pdf

CALTRANS. (2013). *2013 Traffic Volumes on California State Highways*. Retrieved 2015, from http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/docs/2013_aadt_volumes.pdf

CAPCOA. (July 2009). *Health Risk Assessment for Proposed Land Use Projects*. California Air Pollution Control Officers Association .

EPA. (2021). What is a MERV rating? United States. Retrieved from <https://www.epa.gov/indoor-air-quality-iaq/what-merv-rating>

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OEHHA. (2015). *Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments*. OEHHHA. Retrieved from
http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

Office of Environmental Health Hazard Assessment. (2015). *Hot Spot Guidelines*. Retrieved April 16, 2015, from http://www.oehha.ca.gov/air/hot_spots/index.html

SCAQMD. (2005, May 6). Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. Riverside, CA. Retrieved from
<http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf?sfvrsn=2>

SCAQMD. (2015, March). SCAQMD Air Quality Significance Thresholds. Retrieved from
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>

AERMOD PRIME - (DATED 19191)

AERMODPrMSPx VERSION
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Run Began on 1/28/2023 at 12:12:49

** BREEZE AERMOD
** Trinity Consultants
** VERSION 10.0

CO STARTING
CO TITLEONE I15 Roadway Emissions
CO MODELOPT DEFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID PM10
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION ASNLR058 VOLUME 452857.3 3741276.7 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR059 VOLUME 452866.1 3741256.5 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05A VOLUME 452874.9 3741236.4 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05B VOLUME 452883.6 3741216.2 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05C VOLUME 452892.4 3741196.0 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05D VOLUME 452901.2 3741175.9 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05E VOLUME 452910.0 3741155.7 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05F VOLUME 452918.8 3741135.5 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05G VOLUME 452927.5 3741115.3 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05H VOLUME 452936.3 3741095.2 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05I VOLUME 452945.1 3741075.0 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05J VOLUME 452953.9 3741054.8 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05K VOLUME 452962.7 3741034.7 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05L VOLUME 452971.4 3741014.5 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05M VOLUME 452980.2 3740994.3 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05N VOLUME 452989.0 3740974.1 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05O VOLUME 452997.8 3740954.0 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05P VOLUME 453006.6 3740933.8 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05Q VOLUME 453015.4 3740913.6 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05R VOLUME 453024.1 3740893.5 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05S VOLUME 453032.9 3740873.3 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05T VOLUME 453041.7 3740853.1 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05U VOLUME 453050.5 3740832.9 0
** SRCDESCR Interstate 15
SO LOCATION ASNLR05V VOLUME 453059.3 3740812.8 0
** SRCDESCR Interstate 15

SO LOCATION ASNLR05W VOLUME 453068.0 3740792.6 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR05X VOLUME 453076.8 3740772.4 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR05Y VOLUME 453085.6 3740752.3 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR05Z VOLUME 453094.4 3740732.1 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR060 VOLUME 453103.2 3740711.9 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR061 VOLUME 453112.0 3740691.7 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR062 VOLUME 453120.7 3740671.6 0
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 SO LOCATION ASNLR063 VOLUME 453129.5 3740651.4 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR064 VOLUME 453138.3 3740631.2 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR065 VOLUME 453147.1 3740611.1 0
 ** SRCDESCR Interstate 15
 SO LOCATION ASNLR066 VOLUME 453155.9 3740590.9 0
 ** SRCDESCR Interstate 15
 SO SRCPARAM ASNLR058 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR059 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05A 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05B 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05C 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05D 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05E 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05F 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05G 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05H 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05I 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05J 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05K 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05L 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05M 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05N 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05O 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05P 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05Q 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05R 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05S 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05T 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05U 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05V 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05W 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05X 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05Y 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR05Z 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR060 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR061 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR062 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR063 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR064 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR065 1.12154E-05 3 10.23256 2.790698
 SO SRCPARAM ASNLR066 1.12154E-05 3 10.23256 2.790698
 SO SRCGROUP ALL
 SO FINISHED

RE STARTING
 RE ELEVUNIT METERS
 RE GRIDCART ASNLR069 STA
 RE GRIDCART ASNLR069 XYINC 452879.3 21 31.835 3741338.6 21 -34.09
 RE GRIDCART ASNLR069 ELEV 1 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5
 RE GRIDCART ASNLR069 ELEV 1 1.5 1.5 1.5 1.5 1.5 1.5 1.5
 RE GRIDCART ASNLR069 ELEV 2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5
 RE GRIDCART ASNLR069 ELEV 2 1.5 1.5 1.5 1.5 1.5 1.5
 RE GRIDCART ASNLR069 ELEV 3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5

** SENSITIV
** RCPDESCR REC4
RE DISCCART 453223.4 3741059.4 0 0
** SENSITIV
** RCPDESCR REC5
RE FINISHED

ME STARTING
ME SURFFILE "C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.SFC"
** SURFFILE "C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.SFC"
ME PROFFILE "C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.PFL"
** PROFFILE "C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.PFL"
ME SURFDATA 0 2008
ME UAIRDATA 3190 2008
ME PROFBASE 3 METERS
ME STARTEND 2011 1 1 1 2012 12 31 24
ME FINISHED

OU STARTING
OU FILEFORM FIX
OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000
OU FINISHED

** It is recommended that the user not edit any data below this line

** TAG NAM ASNLR057
** TAG PRM 0 2 F F 1 255,0,0,0
** TAG CRD 452852.9,3741286.8,0,453163.6,3740573.1,0

** AMPTYPE
** AMPDATUM -1
** AMPZONE -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_4326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 11
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE UserDefined
** AERMODEXE AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE AERMAP_EPA_11103.EXE

*** SETUP Finishes Successfully ***

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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM10

**Model Calculates ANNUAL Averages Only

**This Run Includes: 35 Source(s); 1 Source Group(s); and 446 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 35 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 3.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0

Emission Units = GRAMS/SEC ; Emission Rate Unit Factor =

0.10000E+07

Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

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 *** MODELOPTS: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
ASNLR058	0	0.11215E-04	452857.3	3741276.7	0.0	3.00	10.23	2.79	NO	
ASNLR059	0	0.11215E-04	452866.1	3741256.5	0.0	3.00	10.23	2.79	NO	
ASNLR05A	0	0.11215E-04	452874.9	3741236.4	0.0	3.00	10.23	2.79	NO	
ASNLR05B	0	0.11215E-04	452883.6	3741216.2	0.0	3.00	10.23	2.79	NO	
ASNLR05C	0	0.11215E-04	452892.4	3741196.0	0.0	3.00	10.23	2.79	NO	
ASNLR05D	0	0.11215E-04	452901.2	3741175.9	0.0	3.00	10.23	2.79	NO	
ASNLR05E	0	0.11215E-04	452910.0	3741155.7	0.0	3.00	10.23	2.79	NO	
ASNLR05F	0	0.11215E-04	452918.8	3741135.5	0.0	3.00	10.23	2.79	NO	
ASNLR05G	0	0.11215E-04	452927.5	3741115.3	0.0	3.00	10.23	2.79	NO	
ASNLR05H	0	0.11215E-04	452936.3	3741095.2	0.0	3.00	10.23	2.79	NO	
ASNLR05I	0	0.11215E-04	452945.1	3741075.0	0.0	3.00	10.23	2.79	NO	
ASNLR05J	0	0.11215E-04	452953.9	3741054.8	0.0	3.00	10.23	2.79	NO	
ASNLR05K	0	0.11215E-04	452962.7	3741034.7	0.0	3.00	10.23	2.79	NO	
ASNLR05L	0	0.11215E-04	452971.4	3741014.5	0.0	3.00	10.23	2.79	NO	
ASNLR05M	0	0.11215E-04	452980.2	3740994.3	0.0	3.00	10.23	2.79	NO	
ASNLR05N	0	0.11215E-04	452989.0	3740974.1	0.0	3.00	10.23	2.79	NO	
ASNLR05O	0	0.11215E-04	452997.8	3740954.0	0.0	3.00	10.23	2.79	NO	
ASNLR05P	0	0.11215E-04	453006.6	3740933.8	0.0	3.00	10.23	2.79	NO	
ASNLR05Q	0	0.11215E-04	453015.4	3740913.6	0.0	3.00	10.23	2.79	NO	
ASNLR05R	0	0.11215E-04	453024.1	3740893.5	0.0	3.00	10.23	2.79	NO	
ASNLR05S	0	0.11215E-04	453032.9	3740873.3	0.0	3.00	10.23	2.79	NO	
ASNLR05T	0	0.11215E-04	453041.7	3740853.1	0.0	3.00	10.23	2.79	NO	
ASNLR05U	0	0.11215E-04	453050.5	3740832.9	0.0	3.00	10.23	2.79	NO	
ASNLR05V	0	0.11215E-04	453059.3	3740812.8	0.0	3.00	10.23	2.79	NO	
ASNLR05W	0	0.11215E-04	453068.0	3740792.6	0.0	3.00	10.23	2.79	NO	
ASNLR05X	0	0.11215E-04	453076.8	3740772.4	0.0	3.00	10.23	2.79	NO	
ASNLR05Y	0	0.11215E-04	453085.6	3740752.3	0.0	3.00	10.23	2.79	NO	
ASNLR05Z	0	0.11215E-04	453094.4	3740732.1	0.0	3.00	10.23	2.79	NO	
ASNLR060	0	0.11215E-04	453103.2	3740711.9	0.0	3.00	10.23	2.79	NO	
ASNLR061	0	0.11215E-04	453112.0	3740691.7	0.0	3.00	10.23	2.79	NO	
ASNLR062	0	0.11215E-04	453120.7	3740671.6	0.0	3.00	10.23	2.79	NO	
ASNLR063	0	0.11215E-04	453129.5	3740651.4	0.0	3.00	10.23	2.79	NO	
ASNLR064	0	0.11215E-04	453138.3	3740631.2	0.0	3.00	10.23	2.79	NO	
ASNLR065	0	0.11215E-04	453147.1	3740611.1	0.0	3.00	10.23	2.79	NO	
ASNLR066	0	0.11215E-04	453155.9	3740590.9	0.0	3.00	10.23	2.79	NO	

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 *** MODELOPTS: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

1.50	1.50							
3740895.43		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3740929.52		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3740963.61		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3740997.70		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741031.79		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741065.88		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741099.97		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741134.06		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741168.15		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741202.24		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741236.33		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741270.42		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741304.51		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							
3741338.60		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50							

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 *** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)		453165.82	453197.65	453229.48	X-COORD (METERS)	453261.32	453293.15	453324.99	453356.83
453388.66		453420.49							

3740656.80		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740690.89		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740724.98		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740759.07		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740793.16		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740827.25		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740861.34		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740895.43		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740929.52		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740963.61		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								
3740997.70		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50	1.50								

3741031.79		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741065.88		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741099.97		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741134.06		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741168.15		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741202.24		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741236.33		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741270.42		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741304.51		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						
3741338.60		1.50	1.50	1.50	1.50	1.50	1.50	1.50
1.50		1.50						

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 *** MODELOPTs: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)			X-COORD (METERS)
	453452.33	453484.16	453516.00

3740656.80		1.50	1.50
3740690.89		1.50	1.50
3740724.98		1.50	1.50
3740759.07		1.50	1.50
3740793.16		1.50	1.50
3740827.25		1.50	1.50
3740861.34		1.50	1.50
3740895.43		1.50	1.50
3740929.52		1.50	1.50
3740963.61		1.50	1.50
3740997.70		1.50	1.50
3741031.79		1.50	1.50
3741065.88		1.50	1.50
3741099.97		1.50	1.50
3741134.06		1.50	1.50
3741168.15		1.50	1.50
3741202.24		1.50	1.50
3741236.33		1.50	1.50
3741270.42		1.50	1.50
3741304.51		1.50	1.50
3741338.60		1.50	1.50

^ *** AERMOD - VERSION 19191 *** *** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** ***
 12:12:49

PAGE 8
 *** MODELOPTs: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	452879.30	452911.14	452942.97	X-COORD (METERS)	452974.80	453006.64	453038.47	453070.31
453102.14	453133.98							

3740656.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740690.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740724.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740759.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740793.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740827.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740861.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740895.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740929.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740963.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3740997.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741031.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741065.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741099.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741134.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741168.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741202.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741236.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741270.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741304.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							
3741338.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							

*** AERMOD - VERSION 19191 *** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** ***
 12:12:49

PAGE 9
 *** MODELOPTs: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	453165.82	453197.65	453229.48	X-COORD (METERS)	453261.32	453293.15	453324.99	453356.83
453388.66	453420.49							

3740656.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00							

3740690.89		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740724.98		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740759.07		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740793.16		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740827.25		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740861.34		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740895.43		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740929.52		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740963.61		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3740997.70		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741031.79		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741065.88		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741099.97		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741134.06		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741168.15		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741202.24		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741236.33		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741270.42		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741304.51		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						
3741338.60		0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00						

▲ *** AERMOD - VERSION 19191 *** *** I15 Roadway Emissions ***
01/28/23
*** AERMET - VERSION 14134 *** ***
12:12:49

PAGE 10
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)				X-COORD (METERS)
	453452.33	453484.16	453516.00	
3740656.80		0.00	0.00	0.00
3740690.89		0.00	0.00	0.00
3740724.98		0.00	0.00	0.00
3740759.07		0.00	0.00	0.00
3740793.16		0.00	0.00	0.00
3740827.25		0.00	0.00	0.00
3740861.34		0.00	0.00	0.00
3740895.43		0.00	0.00	0.00
3740929.52		0.00	0.00	0.00
3740963.61		0.00	0.00	0.00
3740997.70		0.00	0.00	0.00
3741031.79		0.00	0.00	0.00

3741065.88	0.00	0.00	0.00
3741099.97	0.00	0.00	0.00
3741134.06	0.00	0.00	0.00
3741168.15	0.00	0.00	0.00
3741202.24	0.00	0.00	0.00
3741236.33	0.00	0.00	0.00
3741270.42	0.00	0.00	0.00
3741304.51	0.00	0.00	0.00
3741338.60	0.00	0.00	0.00

^ *** AERMOD - VERSION 19191 *** *** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** ***
 12:12:49

PAGE 11
 *** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
 LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR XR (METERS)	LOCATION - - YR (METERS)	DISTANCE (METERS)
ASNLR058	452879.3	3741270.4	0.88
ASNLR059	452879.3	3741270.4	-2.82
ASNLR05A	452879.3	3741236.3	-17.60
ASNLR05B	452879.3	3741236.3	-1.42
ASNLR05B	452879.3	3741202.2	-7.39
ASNLR05C	452879.3	3741202.2	-7.49
ASNLR05C	452911.1	3741202.2	-2.25
ASNLR05D	452911.1	3741168.1	-9.40
ASNLR05E	452911.1	3741168.1	-9.50
ASNLR05E	452911.1	3741134.1	-0.33
ASNLR05F	452911.1	3741134.1	-14.20
ASNLR05G	452911.1	3741100.0	0.42
ASNLR05G	452943.0	3741100.0	-0.22
ASNLR05H	452943.0	3741100.0	-13.80
ASNLR05I	452943.0	3741065.9	-12.63
ASNLR05J	452943.0	3741065.9	-6.44
ASNLR05K	452943.0	3741031.8	-2.06
ASNLR05K	452974.8	3741031.8	-9.55
ASNLR05L	452974.8	3741031.8	-4.38
ASNLR05L	452974.8	3740997.7	-4.86
ASNLR05M	452974.8	3740997.7	-15.62
ASNLR05N	452974.8	3740963.6	-4.35
ASNLR05N	453006.6	3740963.6	-1.48
ASNLR05O	453006.6	3740963.6	-8.94
ASNLR05P	453006.6	3740929.5	-17.72
ASNLR05Q	453006.6	3740929.5	-3.83
ASNLR05Q	453006.6	3740895.4	-1.83
ASNLR05R	453006.6	3740895.4	-4.43
ASNLR05R	453038.5	3740895.4	-7.50
ASNLR05S	453038.5	3740895.4	0.82
ASNLR05S	453038.5	3740861.3	-8.80
ASNLR05T	453038.5	3740861.3	-13.15
ASNLR05U	453038.5	3740827.2	-8.71
ASNLR05U	453070.3	3740827.2	-1.40
ASNLR05V	453070.3	3740827.2	-3.83
ASNLR05V	453070.3	3740793.2	0.52
ASNLR05W	453070.3	3740793.2	-19.62
ASNLR05X	453070.3	3740793.2	-0.25
ASNLR05X	453070.3	3740759.1	-7.17
ASNLR05Y	453070.3	3740759.1	-5.28

^ *** AERMOD - VERSION 19191 *** *** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** ***
 12:12:49

Surface file: C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.SF Met Version: 14134

Profile file: C:\USERS\RYAN\ONEDRIVE\LDNONE~1\CI9EA3~1\22-161~1\HRA\SUBMIT~1\BREEZE~1\ELSI8.PF
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2008 Year: 2008

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA
08	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	284.2	5.5		
08	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5		
08	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5		
08	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5		
08	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5		
08	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5		
08	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5		
08	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	0.54	999.00	999.	-9.0	283.8	5.5		
08	01	01	1	09	27.2	-9.000	-9.000	-9.000	60.	-999.	-999999.0	0.23	1.00	0.33	999.00	999.	-9.0	285.9	5.5		
08	01	01	1	10	74.6	-9.000	-9.000	-9.000	157.	-999.	-999999.0	0.23	1.00	0.25	999.00	999.	-9.0	288.1	5.5		
08	01	01	1	11	107.4	-9.000	-9.000	-9.000	375.	-999.	-999999.0	0.23	1.00	0.23	999.00	999.	-9.0	289.9	5.5		
08	01	01	1	12	122.7	-9.000	-9.000	-9.000	578.	-999.	-999999.0	0.23	1.00	0.22	999.00	999.	-9.0	289.9	5.5		
08	01	01	1	13	121.3	-9.000	-9.000	-9.000	714.	-999.	-999999.0	0.23	1.00	0.22	999.00	999.	-9.0	291.4	5.5		
08	01	01	1	14	102.1	-9.000	-9.000	-9.000	763.	-999.	-999999.0	0.23	1.00	0.23	999.00	999.	-9.0	292.0	5.5		
08	01	01	1	15	65.8	-9.000	-9.000	-9.000	792.	-999.	-999999.0	0.23	1.00	0.27	999.00	999.	-9.0	291.4	5.5		
08	01	01	1	16	16.0	-9.000	-9.000	-9.000	798.	-999.	-999999.0	0.23	1.00	0.36	999.00	999.	-9.0	290.4	5.5		
08	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	0.63	999.00	999.	-9.0	288.8	5.5		
08	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	287.5	5.5		
08	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	286.4	5.5		
08	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	285.4	5.5		
08	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	284.2	5.5		
08	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5		
08	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5		
08	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.23	1.00	1.00	999.00	999.	-9.0	282.5	5.5		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
08	01	01	01	5.5	0	-999.	-99.00	284.3	99.0	-99.00	-99.00


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0.02013      0.01809
3741304.51 |      0.05348      0.04173      0.03443      0.02932      0.02551      0.02252      0.02011
0.01812      0.01644
3741338.60 |      0.03551      0.03091      0.02732      0.02431      0.02178      0.01964      0.01783
0.01627      0.01491
^ *** AERMOD - VERSION 19191 ***   *** I15 Roadway Emissions ***
  01/28/23
*** AERMET - VERSION 14134 ***   ***
  12:12:49

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PAGE 16
*** MODELOPTS:  RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

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*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 2 YEARS FOR SOURCE GROUP: ALL
***
          INCLUDING SOURCE(S):  ASNLR058 , ASNLR059 , ASNLR05A , ASNLR05B ,
ASNLR05C ,
          ASNLR05D , ASNLR05E , ASNLR05F , ASNLR05G , ASNLR05H , ASNLR05I , ASNLR05J ,
ASNLR05K ,
          ASNLR05L , ASNLR05M , ASNLR05N , ASNLR05O , ASNLR05P , ASNLR05Q , ASNLR05R ,
ASNLR05S ,
          ASNLR05T , ASNLR05U , ASNLR05V , ASNLR05W , ASNLR05X , ASNLR05Y , ASNLR05Z ,
. . . ,

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*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

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          ** CONC OF PM10      IN MICROGRAMS/M**3      **
          Y-COORD |      X-COORD (METERS)
(METERS) |      453165.82      453197.65      453229.48      453261.32      453293.15      453324.99      453356.83
453388.66      453420.49

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3740656.80 |      0.08089      0.05457      0.04095      0.03235      0.02646      0.02220      0.01899
0.01649      0.01450
3740690.89 |      0.07097      0.05140      0.03988      0.03211      0.02652      0.02234      0.01914
0.01663      0.01461
3740724.98 |      0.06354      0.04810      0.03824      0.03130      0.02615      0.02220      0.01910
0.01664      0.01464
3740759.07 |      0.05754      0.04491      0.03638      0.03019      0.02549      0.02182      0.01889
0.01652      0.01458
3740793.16 |      0.05249      0.04190      0.03446      0.02892      0.02464      0.02126      0.01852
0.01628      0.01443
3740827.25 |      0.04810      0.03907      0.03254      0.02757      0.02369      0.02058      0.01805
0.01595      0.01420
3740861.34 |      0.04421      0.03642      0.03065      0.02620      0.02268      0.01983      0.01749
0.01554      0.01390
3740895.43 |      0.04070      0.03393      0.02883      0.02484      0.02165      0.01904      0.01689
0.01508      0.01354
3740929.52 |      0.03751      0.03160      0.02707      0.02350      0.02061      0.01823      0.01625
0.01458      0.01315
3740963.61 |      0.03458      0.02941      0.02539      0.02220      0.01959      0.01742      0.01560
0.01405      0.01272
3740997.70 |      0.03188      0.02735      0.02380      0.02093      0.01858      0.01661      0.01494
0.01351      0.01228
3741031.79 |      0.02938      0.02542      0.02228      0.01972      0.01759      0.01580      0.01428
0.01297      0.01183
3741065.88 |      0.02708      0.02361      0.02083      0.01855      0.01664      0.01501      0.01362
0.01242      0.01137
3741099.97 |      0.02494      0.02191      0.01946      0.01742      0.01571      0.01425      0.01298
0.01188      0.01092
3741134.06 |      0.02295      0.02032      0.01816      0.01635      0.01482      0.01350      0.01236
0.01135      0.01047
3741168.15 |      0.02112      0.01883      0.01694      0.01534      0.01397      0.01278      0.01175
0.01083      0.01002
3741202.24 |      0.01942      0.01744      0.01578      0.01437      0.01315      0.01209      0.01115
0.01032      0.00958
3741236.33 |      0.01784      0.01614      0.01469      0.01345      0.01237      0.01142      0.01057

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0.00982	0.00914							
3741270.42		0.01637	0.01491	0.01366	0.01257	0.01162	0.01077	0.01001
0.00933	0.00872							
3741304.51		0.01501	0.01377	0.01269	0.01174	0.01090	0.01015	0.00947
0.00886	0.00831							
3741338.60		0.01373	0.01269	0.01177	0.01095	0.01021	0.00955	0.00895
0.00841	0.00791							

^ *** AERMOD - VERSION 19191 *** ** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** **
 12:12:49

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*** MODELOPTS: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 2 YEARS FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): ASNLR058 , ASNLR059 , ASNLR05A , ASNLR05B ,
 ASNLR05C , ASNLR05D , ASNLR05E , ASNLR05F , ASNLR05G , ASNLR05H , ASNLR05I , ASNLR05J ,
 ASNLR05K , ASNLR05L , ASNLR05M , ASNLR05N , ASNLR05O , ASNLR05P , ASNLR05Q , ASNLR05R ,
 ASNLR05S , ASNLR05T , ASNLR05U , ASNLR05V , ASNLR05W , ASNLR05X , ASNLR05Y , ASNLR05Z ,
 . . . ,

*** NETWORK ID: ASNLR069 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)				X-COORD (METERS)
	453452.33	453484.16	453516.00	

3740656.80		0.01287	0.01152	0.01040
3740690.89		0.01297	0.01160	0.01046
3740724.98		0.01301	0.01164	0.01050
3740759.07		0.01298	0.01164	0.01050
3740793.16		0.01288	0.01157	0.01046
3740827.25		0.01272	0.01146	0.01038
3740861.34		0.01250	0.01130	0.01026
3740895.43		0.01223	0.01109	0.01010
3740929.52		0.01192	0.01085	0.00991
3740963.61		0.01158	0.01057	0.00969
3740997.70		0.01121	0.01027	0.00945
3741031.79		0.01084	0.00996	0.00919
3741065.88		0.01045	0.00964	0.00892
3741099.97		0.01007	0.00931	0.00864
3741134.06		0.00968	0.00898	0.00836
3741168.15		0.00930	0.00865	0.00807
3741202.24		0.00891	0.00831	0.00777
3741236.33		0.00853	0.00798	0.00748
3741270.42		0.00816	0.00766	0.00720
3741304.51		0.00780	0.00734	0.00692
3741338.60		0.00745	0.00702	0.00664

^ *** AERMOD - VERSION 19191 *** ** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** **
 12:12:49

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*** MODELOPTS: RegDFault CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 2 YEARS FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): ASNLR058 , ASNLR059 , ASNLR05A , ASNLR05B ,
 ASNLR05C , ASNLR05D , ASNLR05E , ASNLR05F , ASNLR05G , ASNLR05H , ASNLR05I , ASNLR05J ,

ASNLR05K ,
 ASNLR05L , ASNLR05M , ASNLR05N , ASNLR05O , ASNLR05P , ASNLR05Q , ASNLR05R ,
 ASNLR05S , ASNLR05T , ASNLR05U , ASNLR05V , ASNLR05W , ASNLR05X , ASNLR05Y , ASNLR05Z ,
 . . . ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10			IN MICROGRAMS/M**3			**
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	
453204.60	3741198.20	0.01735	453204.60	3741161.80	0.01881	
453215.10	3741112.80	0.02014	453221.20	3741072.10	0.02142	
453223.40	3741059.40	0.02179				

▲ *** AERMOD - VERSION 19191 *** ** I15 Roadway Emissions ***
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 *** AERMET - VERSION 14134 *** **
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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 2 YEARS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL ASNLR069	1ST HIGHEST VALUE IS 0.12179 AT (452942.97, 3741134.06,	1.50, 0.00, 0.00)	GC
ASNLR069	2ND HIGHEST VALUE IS 0.12051 AT (452974.80, 3741065.88,	1.50, 0.00, 0.00)	GC
ASNLR069	3RD HIGHEST VALUE IS 0.11874 AT (453038.47, 3740827.25,	1.50, 0.00, 0.00)	GC
ASNLR069	4TH HIGHEST VALUE IS 0.11732 AT (453006.64, 3740997.70,	1.50, 0.00, 0.00)	GC
ASNLR069	5TH HIGHEST VALUE IS 0.11433 AT (452974.80, 3740963.61,	1.50, 0.00, 0.00)	GC
ASNLR069	6TH HIGHEST VALUE IS 0.11330 AT (453038.47, 3740929.52,	1.50, 0.00, 0.00)	GC
ASNLR069	7TH HIGHEST VALUE IS 0.11053 AT (452879.30, 3741168.15,	1.50, 0.00, 0.00)	GC
ASNLR069	8TH HIGHEST VALUE IS 0.11012 AT (452942.97, 3741031.79,	1.50, 0.00, 0.00)	GC
ASNLR069	9TH HIGHEST VALUE IS 0.10897 AT (453006.64, 3740929.52,	1.50, 0.00, 0.00)	GC
ASNLR069	10TH HIGHEST VALUE IS 0.10821 AT (453070.31, 3740861.34,	1.50, 0.00, 0.00)	GC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 19191 *** ** I15 Roadway Emissions ***
 01/28/23
 *** AERMET - VERSION 14134 *** **
 12:12:49

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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1916 Informational Message(s)

A Total of 17544 Hours Were Processed

A Total of 4 Calm Hours Identified

A Total of 973 Missing Hours Identified (5.55 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

Source: EMFAC2021 (v1.0.2) Emission Rates
 Region Type: Sub-Area

Region: San Diego (SD)
 Calendar Year: 2025
 Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

RoadwayADT	164000	Trips/Day	
RoadwaySegmentAERMOD_VolumeSourceDistance	0.484	Miles/Trip	
SegmentVMT	79376	Miles/Day	

Region	CalYr	VehClass	Mdlyr	Speed	Fuel	VMT	%ofTotalVMT	VMT on Roadway Segment	PM10_RUNEX	Total Grams	Grams from DSL Only
Riverside (SC)	2025	HHDT	Aggregate	65	Gasoline	48.10469363	0.00161%	1.274783246	0.001381017	0.001760498	0
Riverside (SC)	2025	HHDT	Aggregate	65	Diesel	271821.8956	9.07495%	7203.330327	0.033882057	244.0636519	244.0636519
Riverside (SC)	2025	HHDT	Aggregate	65	Electricity	1663.021031	0.0552%	44.0703638	0	0	0
Riverside (SC)	2025	HHDT	Aggregate	65	Natural Gas	8057.303988	0.26900%	213.5200405	0.001932202	0.41256383	0
Riverside (SC)	2025	LDA	Aggregate	65	Gasoline	1307182.608	43.64113%	34640.58001	0.001181474	40.92695263	0
Riverside (SC)	2025	LDA	Aggregate	65	Diesel	3207.749079	0.10709%	85.00594174	0.013895104	1.181166437	1.181166437
Riverside (SC)	2025	LDA	Aggregate	65	Electricity	857.485268	0.02863%	22.72351763	0	0	0
Riverside (SC)	2025	LDA	Aggregate	65	Plug-in Hybrid	21936.81835	0.73237%	581.329729	0.001199528	0.69732103	0
Riverside (SC)	2025	LDT1	Aggregate	65	Gasoline	96215.08225	3.21220%	2549.717411	0.001950666	4.97364784	0
Riverside (SC)	2025	LDT1	Aggregate	65	Diesel	19.13079861	0.00064%	0.506969689	0.253011526	0.128269174	0.128269174
Riverside (SC)	2025	LDT1	Aggregate	65	Electricity	3.040293291	0.00010%	0.080568333	0	0	0
Riverside (SC)	2025	LDT1	Aggregate	65	Plug-in Hybrid	119.4754557	0.00399%	3.166121595	0.000836327	0.002647914	0
Riverside (SC)	2025	LDT2	Aggregate	65	Gasoline	575770.9582	19.22248%	15258.0365	0.001192922	18.20164932	0
Riverside (SC)	2025	LDT2	Aggregate	65	Diesel	1958.12918	0.06537%	51.89078412	0.004519975	0.234545024	0.234545024
Riverside (SC)	2025	LDT2	Aggregate	65	Electricity	43.59383124	0.00146%	1.155244562	0	0	0
Riverside (SC)	2025	LDT2	Aggregate	65	Plug-in Hybrid	3076.868961	0.10272%	81.5375945	0.00096444	0.078638082	0
Riverside (SC)	2025	LHDT1	Aggregate	65	Gasoline	76659.60917	2.55933%	2031.49377	0.001167503	2.371775674	0
Riverside (SC)	2025	LHDT1	Aggregate	65	Diesel	57077.70129	1.90558%	1512.569603	0.024119761	36.48281658	36.48281658
Riverside (SC)	2025	LHDT1	Aggregate	65	Electricity	1150.552957	0.03841%	30.48986539	0	0	0
Riverside (SC)	2025	LHDT2	Aggregate	65	Gasoline	10387.47273	0.34679%	275.2699415	0.001024092	0.281901681	0
Riverside (SC)	2025	LHDT2	Aggregate	65	Diesel	25982.74359	0.86745%	688.5474935	0.022015717	15.15886705	15.15886705
Riverside (SC)	2025	LHDT2	Aggregate	65	Electricity	268.2960938	0.00896%	7.109895931	0	0	0
Riverside (SC)	2025	MCY	Aggregate	65	Gasoline	8889.366937	0.29678%	235.569862	0.001793683	0.422537601	0
Riverside (SC)	2025	MDV	Aggregate	65	Gasoline	413723.0254	13.81241%	10963.73642	0.001244364	13.64288275	0
Riverside (SC)	2025	MDV	Aggregate	65	Diesel	6385.604972	0.21319%	169.2197086	0.008226206	1.392036238	1.392036238
Riverside (SC)	2025	MDV	Aggregate	65	Electricity	48.00084666	0.00160%	1.272031759	0	0	0
Riverside (SC)	2025	MDV	Aggregate	65	Plug-in Hybrid	1985.214465	0.06628%	52.60854916	0.001182611	0.062215469	0
Riverside (SC)	2025	MH	Aggregate	65	Gasoline	5104.047236	0.17040%	135.2581924	0.001050376	0.142072	0
Riverside (SC)	2025	MH	Aggregate	65	Diesel	2313.106635	0.07722%	61.29775211	0.158644979	9.724580615	9.724580615
Riverside (SC)	2025	MHDT	Aggregate	65	Gasoline	6541.207032	0.21838%	173.3431918	0.000921507	0.159736954	0
Riverside (SC)	2025	MHDT	Aggregate	65	Diesel	74887.05709	2.50015%	1984.520814	0.013346723	26.48685026	26.48685026
Riverside (SC)	2025	MHDT	Aggregate	65	Electricity	806.8497605	0.02694%	21.3816735	0	0	0
Riverside (SC)	2025	MHDT	Aggregate	65	Natural Gas	1051.119193	0.03509%	27.85485234	0.000657128	0.018304207	0
Riverside (SC)	2025	OBUS	Aggregate	65	Gasoline	2179.696262	0.07277%	57.76235264	0.000709344	0.040973379	0
Riverside (SC)	2025	OBUS	Aggregate	65	Diesel	3207.719971	0.10709%	85.00517037	0.047343653	4.024455273	4.024455273
Riverside (SC)	2025	OBUS	Aggregate	65	Electricity	24.08385788	0.00080%	0.638226672	0	0	0
Riverside (SC)	2025	OBUS	Aggregate	65	Natural Gas	398.0120176	0.01329%	10.54739181	0.000573793	0.006052022	0
Riverside (SC)	2025	SBUS	Aggregate	65	Gasoline	408.131231	0.01363%	10.81555283	0.000562456	0.006083277	0
Riverside (SC)	2025	SBUS	Aggregate	65	Diesel	240.4095703	0.08033%	6.370897919	0.043112147	0.274720426	0.274720426
Riverside (SC)	2025	SBUS	Aggregate	65	Electricity	3.465538021	0.00012%	0.091837396	0	0	0
Riverside (SC)	2025	SBUS	Aggregate	65	Natural Gas	268.770236	0.00897%	7.122460786	0.002120519	0.015103313	0
Riverside (SC)	2025	UBUS	Aggregate	65	Gasoline	1561.676556	0.05214%	41.38471654	0.000960395	0.039745663	0
Riverside (SC)	2025	UBUS	Aggregate	65	Diesel	1.704773148	0.00006%	0.045176803	0.005302537	0.000239552	0.000239552
Riverside (SC)	2025	UBUS	Aggregate	65	Electricity	1.911323813	0.00006%	0.050650433	0	0	0
Riverside (SC)	2025	UBUS	Aggregate	65	Natural Gas	1762.103058	0.05883%	46.69605578	7.68439E-05	0.003588308	0
				Total VMT		2995299.925	100.00000%	79376		Total Grams from DSL Only PM10 per Day	339.1521986
										Total Grams from DSL PM10 per Second (g/s)	0.003925373
										MERV 13 %Passing from Roadway (g/s)	0.003925373

Cancer Risk Calculations

REC: R1 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01735	0.01735	0.01735	0.01735	0.01735	0.01735
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10 ⁻⁶ Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000375	0.00001096	0.00000891	0.00000753	0.00000350	0.00000308
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.25143E-07 0.125143071	2.92779E-06 2.92779168	2.11724E-06 2.117244096	3.57755E-06 3.577548902	5.6174E-07 0.561740256	2.61475E-06 2.614754057
Cancer Risk Per Million 30-years	7.19					

REC: R2 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01881	0.01881	0.01881	0.01881	0.01881	0.01881
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10 ⁻⁶ Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000406	0.00001188	0.00000966	0.00000816	0.00000379	0.00000348
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.35674E-07 0.135673843	3.17416E-06 3.174164928	2.29541E-06 2.295409882	3.8786E-06 3.878599127	6.09011E-07 0.609010618	2.9529E-06 2.952901286
Cancer Risk Per Million 30-years	7.80					

REC: R3 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.02014	0.02014	0.02014	0.02014	0.02014	0.02014
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10 ⁻⁶ Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000435	0.00001272	0.00001034	0.00000874	0.00000406	0.00000373
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.45267E-07 0.145266943	3.3986E-06 3.398600832	2.45771E-06 2.45771159	4.15284E-06 4.15284351	6.52072E-07 0.652071974	3.16169E-06 3.161692286
Cancer Risk Per Million 30-years	8.35					

REC: R4 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.02142	0.02142	0.02142	0.02142	0.02142	0.02142
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10 ⁻⁶ Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000463	0.00001353	0.00001100	0.00000929	0.00000432	0.00000396
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.54499E-07 0.1544994	3.6146E-06 3.614599296	2.61391E-06 2.613911731	4.41678E-06 4.41677953	6.93514E-07 0.693514483	3.36263E-06 3.362634
Cancer Risk Per Million 30-years	8.88					

Cancer Risk Calculations

REC: R5 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.02179	0.02179	0.02179	0.02179	0.02179	0.02179
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000471	0.00001376	0.00001119	0.00000946	0.00000439	0.00000403
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.57168E-07	3.67704E-06	2.65906E-06	4.49307E-06	7.05494E-07	3.42072E-06
	0.157168157	3.677036352	2.659063334	4.493071503	0.705493958	3.420718714
Cancer Risk Per Million 30-years	9.03					



CITY OF CORONA
MITIGATED NEGATIVE DECLARATION

NAME, DESCRIPTION AND LOCATION OF PROJECT:

PP2018-0003

Application for a Precise Plan review of a proposed 90,865 square foot proposed commercial development including a four-story hotel, 11,000 square feet of restaurant space including a drive-through, 15,800 square feet of retail floor area including convenience store/10-pump fuel station with a 2,000 square foot drive through car wash (CUP2018-0007) on 7.3 acres located at the northwest corner of Dos Lagos Drive and Temescal Canyon Road in the Commercial designation of the Dos Lagos Specific Plan (SP-99-03).

CUP2018-0007

Application for a Conditional Use Permit for a 2,000 square foot drive-through car wash to be located on the south side of a proposed convenience store (PP2018-0003) as part of a commercial development proposed at the northwest corner of Dos Lagos Drive and Temescal Canyon Road in the Commercial designation of the Dos Lagos Specific Plan (SP-99-03).

ENTITY OR PERSON UNDERTAKING PROJECT:

Patrick Tritz and Griffin Hauptert, Terrano Plaza LLC (Rexco), 2518 N. Santiago Blvd., Orange, CA 92867

The Planning and Housing Commission, having reviewed the initial study of this proposed project and the written comments received prior to the public meeting of the Commission, and having heard, at a public meeting of the Commission, the comments of any and all concerned persons or entities, including the recommendation of the City's staff, does hereby find that the proposed project may have potentially significant effects on the environment, but mitigation measures or revisions in the project plans or proposals made by or agreed to by the applicant would avoid or mitigate the effects to a point where clearly no significant effects will occur. **Therefore, the Planning and Housing Commission hereby finds that the Mitigated Negative Declaration reflects its independent judgment and shall be adopted.**

The Initial Study and other materials which constitute the records of proceedings, are available at the office of the City Clerk, City of Corona City Hall, 400 South Vicentia Avenue, Corona, CA 92882.

Date: _____

Chair
City of Corona

Date filed with County Clerk: _____

CITY OF CORONA

INITIAL STUDY / ENVIRONMENTAL CHECKLIST

PROJECT TITLE:

PP2018-0003

Application for a Precise Plan review of a proposed 90,865 square foot proposed commercial development including a four-story hotel, 11,000 square feet of restaurant space including a drive-through, 15,800 square feet of retail floor area including convenience store/10-pump fuel station with a 2,000 square foot drive through car wash (CUP2018-0007) on 7.3 acres in the Commercial designation (Planning Area 1) of the Dos Lagos Specific Plan (SP-99-03).

CUP2018-0007

Application for a Conditional Use Permit for a 2,000 square foot drive-through car wash to be located on the south side of a proposed convenience store (PP2018-0003) as part of a commercial development proposed in the Commercial designation (Planning Area 1) of the Dos Lagos Specific Plan (SP-99-03).

PROJECT LOCATION:

The northwest corner of Dos Lagos Drive and Temescal Canyon Road in the Commercial designation (Planning Area 1) of the Dos Lagos Specific Plan (SP-99-3).

PROJECT PROPONENT:

Patrick Tritz and Griffin Hauptert, Terrano Plaza LLC (Rexco), 2518 N. Santiago Blvd., Orange, CA 92867

PROJECT DESCRIPTION:

PP2018-0003 and CUP2018-0007 are two components of a mixed-use project that began in 2016 with the entitlement and construction of 276 apartment units on the westerly 13.7 acres of Planning Area 1 of the Dos Lagos Specific Plan area at the southerly tip of the city. At that time, the concept for a future commercial component of the mixed-use project was envisioned for the easterly 7.31 acres of Planning Area 1 but had not yet been solidified. With the recent construction of the apartments, the potential development of the commercial portion has further evolved with entitlement now being pursued.

ENVIRONMENTAL SETTING:

Site Description: Planning Area 1 lies north of Dos Lagos Drive between Temescal Canyon Road on the east and Interstate 15 on the west. The entire site is relatively flat. The site was historically over-excavated and rough graded with the commercial project to the immediate north, *The Shoppes at Dos Lagos*, when it was developed in 2005. The subject site contains no natural vegetation or water courses that could accommodate any fish or wildlife species.

Site Surroundings: The property to the north is developed with *The Shoppes at Dos Lagos*, a commercial lifestyle center in the Entertainment Commercial (EC) designation of the Dos Lagos Specific Plan (SP99-03). The property to the east contains an apartment complex in the Rural Residential (RR) designation of the same specific plan. To the south beyond Dos Lagos Drive are existing commercial businesses in the unincorporated County of Riverside. To the west beyond Interstate 15 is vacant property also in the unincorporated county area.

GENERAL PLAN \ ZONING:

The General Plan designation for the subject site is Mixed Use I (Commercial/Residential) which accommodates the development of properties with either retail commercial and office uses or an integrated mix of commercial and residential in a vertical or horizontal configuration on the same site which in this case is all of Planning Area 1. The Commercial designation of the site is consistent with the underlying Mixed Use I General Plan designation. The existing commercial lifestyle center to the north has an underlying General Plan designation of General Commercial with which the Dos Lagos Commercial Specific Plan designation is consistent. The existing apartments to the east have a High Density Residential (HDR) designation allowing 15-36 dwelling units per acre with which the Rural Residential Specific Plan designation is consistent. The property in the unincorporated county area to the south has a county General Plan and zoning of Commercial Retail. The vacant land to the west beyond Interstate 15 has a county General Plan and zoning of Rural Estate Residential.

STAFF RECOMMENDATION:

The City's Staff, having undertaken and completed an initial study of this project in accordance with the City's "Local Guidelines for Implementing the California Environmental Quality Act (CEQA)", has concluded and recommends the following:

- ___ The proposed project could not have a significant effect on the environment. **Therefore, a NEGATIVE DECLARATION will be prepared.**
- ___ The proposed project could have a significant effect on the environment, however, the potentially significant effects have been analyzed and mitigated to below a level of significance pursuant to a previous EIR as identified in the Environmental Checklist attached. **Therefore, a NEGATIVE DECLARATION WILL BE PREPARED.**
- XX The Initial Study identified potentially significant effects on the environment but revisions in the project plans or proposals made by or agreed to by the applicant would avoid or mitigate the effects to below a level of significance. **Therefore, a MITIGATED NEGATIVE DECLARATION will be prepared.**
- ___ The proposed project may have a significant effect on the environment. **Therefore, an ENVIRONMENTAL IMPACT REPORT is required.**
- ___ The proposed project may have a significant effect on the environment, however, a previous EIR has addressed only a portion of the effects identified as described in the Environmental Checklist discussion. As there are potentially significant effects that have not been mitigated to below significant levels, a **FOCUSED EIR will be prepared to evaluate only these effects.**
- ___ There is no evidence that the proposed project will have the potential for adverse effect on fish and wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following indicates the areas of concern that have been identified as "Potentially Significant Impact" or for which mitigation measures are proposed to reduce the impact to less than significant.

- | | | |
|---|---|---|
| <input type="checkbox"/> Land Use Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Agricultural Resources |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Hazards / Hazardous Materials | <input type="checkbox"/> Greenhouse Gases |
| <input type="checkbox"/> Geologic Problems | <input type="checkbox"/> Noise | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Public Services | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Utilities | |
| <input checked="" type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Aesthetics | |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | |

Date Prepared: 7-31-18

Prepared By: TERRI MANUEL, AICP, PLANNING MANAGER

Contact Person: Terri Manuel

Phone: 951-736-2434

AGENCY DISTRIBUTION

(check all that apply)

- Responsible Agencies
- Trustee Agencies (CDFG, SLC, CDPR, UC)
- State Clearinghouse (CDFG, USFWS, Redev. Projects)
- SCAQMD (Includes technical studies)**
- Pechanga
- Soboba**
- WQCB
- Other _____

UTILITY DISTRIBUTION

Southern California Edison

Southern California Edison
 Adriana Mendoza-Ramos, Esq.
 Region Manager, Local Public
 Affairs
 1351 E. Francis St.
 Ontario, CA 91761

Southern California Edison
 Karen Cadavona
 Third Party Environmental Review
 2244 Walnut Grove Ave.
 Quad 4C 472A

Note: This form represents an abbreviation of the complete Environmental Checklist found in the City of Corona CEQA Guidelines. Sources of reference information used to produce this checklist may be found in the City of Corona Community Development Department, 400 S. Vicentia Avenue, Corona, CA.

1. LAND USE AND PLANNING:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with any land use plan/policy or agency regulation (general plan, specific plan, zoning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with surrounding land uses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Physically divide established community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Planning Area 1 is part of the greater master planned area of Dos Lagos that is intended for development of a mix of land uses that include commercial, entertainment, office, and residential with internal pedestrian proximity. Planning Area 1 is identified in the master plan as a Mixed Use designation that is intended to accommodate a mix of commercial and residential uses. The 276-unit apartment complex under construction on the west side of Planning Area 1 is the residential component of the overall site development plan. The applications that are currently proposed (PP2018-0003 and CUP2018-0007) are an implementation of the commercial component of the same mixed-use project. The site development plan proposed with these applications complement the residential portion with a cohesive design that features central shared access and pedestrian proximity. The project, as a whole, as well as the separate components of multi-family residential and commercial, do not create land use incompatibilities, but rather fosters opportunities for people to live in the same area where supporting commercial, entertaining, shopping, and potentially employment are within walking distance reducing the need for vehicle trips. The project will not divide an established community because the site is an infill location master planned to fit into the context of the overall geographic area. Implementation of the project will not result in significant impacts related to land use, and therefore, no mitigation is warranted related to land use and planning.

2. POPULATION AND HOUSING:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Induce substantial growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing or people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed project does not induce substantial growth beyond that previously evaluated with the master planning of the Dos Lagos area and subsequent amendments. The specific plan provides for up to 450 residential units ascribed to Planning Area 1, and the population growth attributable to that original potential number based on the applicable factors at the time of residential entitlement (3.5 persons per household and 2.7% vacancy factor, California State Department of Finance, Demographic Research Unit, Table 2: E-5 City/County Population and Housing Estimates, 1/1/2016 *entitlement year*) the maximum potential population yield for Planning Area 1 was 1,533 persons. The residential portion was underbuilt with substantially fewer residential units (276) with a projected population yield of 940 by comparison which is within the parameters previously evaluated with SPA12-004 and GPA12-003 and within the growth parameters of the city's 2004 General Plan for build-out year 2025. The growth also was determined to not exceed the regional growth projections at the time of residential entitlement by the Southern California Association of Governments (SCAG) for the City of Corona. The proposed commercial component of this mixed-use project will not induce substantial growth or displace any housing, but rather will create a degree of sustainability by providing supportive commercial uses in pedestrian proximity of not only the residential units in Planning Area 1 but also in other parts of Dos Lagos and even in the county area to the south. Therefore, no mitigation is warranted related to population and housing.

3. GEOLOGIC PROBLEMS:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Fault /seismic failures (Alquist-Priolo zone) /Landslide/Liquefaction | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Grading of more than 100 cubic yards | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Grading in areas over 10% slope | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Substantial erosion or loss of topsoil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Unstable soil conditions from grading | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Expansive soils | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

Although the project site is located in a region of generally high seismicity, per Figure 4.5-7 of the General Plan Technical Background Report and the Dos Lagos Specific Plan EIR, the project site is not located within an Alquist-Priolo Seismic Special Study Zone, and no known active or potentially active fault crosses the project site. The Dos Lagos Specific Plan EIR also addressed the potential for liquefaction; however, due to the soil conditions, and combined with the relatively dense nature of the soils, the site is not subject to liquefaction. As such, this project will not result in a significant impact, and no mitigation is warranted.

The site was previously rough graded with the property to the north prior to its development with *The Shoppes at Dos Lagos* in 2005 and is relatively flat. Furthermore, Planning Area 1 was graded with the construction of the apartments on the west side of the planning area. The proposed commercial portion of the site will continue to be graded and finished a manner consistent with the overall site design that will achieve appropriate positive drainage in accordance with the city's grading regulations. Potential impacts are mitigated through adherence to the city's grading ordinances by frequent watering of the site, tire shaker plates at entrance/exits and cleaning of haul roads. Compliance with these requirements is ensured through the grading permit and inspection process through the city's Public Works Department, thereby resulting in less than significant impacts. Therefore, no mitigation is warranted related to geology.

4. HYDROLOGY AND WATER QUALITY:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Violate water quality standards/waste discharge requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Deplete groundwater supplies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Alter existing drainage pattern | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Increase flooding hazard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Degrade surface or ground water quality | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Within 100-year flood hazard area | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Increase exposure to flooding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Exceed capacity of storm water drainage system | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The proposed development of the commercial component of Planning Area 1 will add to the impermeable surface coverage increasing surface run-off. A preliminary Water Quality Management Plan (WQMP) (Land Development Design Company, LLC, December 31, 2015) was prepared for the entirety of Planning Area 1 to ensure that the project addresses potential water quality issues. The developer will be required to implement on-site Best Management Practices (BMPs) identified in the WQMP to minimize pollutant run-off into the city's storm water drainage system. The project will implement underground storm water detention and infiltration systems on the northeast and southeast quadrants (commercial side of Planning Area 1). Such systems eliminate the need for surface holding ponds that reduce the usability of the land. Standard BMPs will also be implemented to maximize permeable surfaces, landscape with drought resistant materials reducing the need for irrigation, site maintenance, spill prevention, control and clean-up, fertilizer and pesticide management, roof run-off controls, and a host of other features that are part of the site design and ongoing operations to ensure continued water quality control. Prior to the issuance of grading permits, the applicant will be required to submit a final WQMP to be reviewed by the Public Works Department. This will result in less than significant impacts related to water quality, and therefore, no further mitigation is required.

A hydrology study was prepared as well for the full site development of Planning Area 1 (Land Development Design Company, LLC, December 31, 2015). The study evaluated the anticipated storm flows for the post-developed condition of the project site including the residential and commercial portions as they form a cohesive site development to verify the capacity of the existing storm drain at the intersection of Temescal Canyon Road and Dos Lagos Drive. Based on the project design, the site will be 80% impervious with surface flows toward the northeast into the private streets and drives where inlets will convey the flows to one of the two underground systems. Implementation of the storm water collection and conveyance systems according to the referenced hydrology study will result in less than significant impacts, and no further mitigation is required.

5. AIR QUALITY:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a. Conflict with air quality plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Violate air quality standard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Net increase of any criteria pollutant | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose sensitive receptors to pollutants | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Create objectionable odors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The project site lies within the southern portion of the South Coast Air Basin (Basin), which is a 6,600-square mile area that includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The agency that regulates air quality in this region is the Southern California Air Quality Management District (SCAQMD). At the state level, air quality is regulated by the California Air Resources Board (CARB) and at the federal level it is the U.S. Environmental Protection Agency (EPA). The SCAQMD is responsible for attaining state and federal clean air standards in the Basin. The SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the Basin to reduce emissions of criteria pollutants to a level that is considered safe by the CARB and EPA.

The development of Planning Area 1 was evaluated in an air quality screening assessment prepared by LDN Consulting, Inc. (January 25, 2016) with the entitlement of the 276 apartments on the westerly portion of Planning Area 1. The commercial portion of the mixed-use project was included in conceptual form at that time and was evaluated with the overall project in terms of potential air quality impacts from construction and operational emissions resulting from implementation of the project utilizing the then-latest CalEEMod air quality and greenhouse gas emissions model by ENVIRON International Corporation for the SCAQMD. Short-term emissions are those that would be related to construction including site preparation, grading, paving, building construction and architectural coatings. Operational emissions were also included with estimations for long-term during summer and winter months for energy use, mobile sources, and area sources. The 2016 study concluded that, when compared to the significance thresholds established for daily operational air quality emissions, no pollutant would exceed such thresholds on a long-term basis, and therefore, no impacts related to pollutants were identified that warranted further mitigation.

With the further refinement of the commercial portion of Planning Area 1, additional analysis has been prepared to address air quality, greenhouse gas emissions (Number 16 below) and health risk, hereinafter addressed (LDN Consulting, Inc., August 1, 2018 as revised). The mass grading of the site has been previously completed as part of the master plan and previous grading of Planning Area 1. Therefore, the only source of construction emissions for the commercial component of Planning Area 1 will be from minor site preparation, building construction, paving and architectural coating. Upon project completion, the development would generate operational emissions from daily vehicle operations, use of consumer products, and from landscaping equipment. Estimates for both construction phase and operational phase were again generated by LDN Consulting utilizing the CalEEMod calculator.

The air quality analysis was based on the worst-case scenario related to trip generation as estimated in the project traffic study (LLG, July 31, 2018, see Number 6 below) for summer and winter. Measured in pounds per day, the criteria pollutants that are analyzed for both construction and operations include Respirable Particulate Matter (PM₁₀/PM_{2.5}), Nitrogen Oxide (NO_x), Sulfur Oxide (SO_x), Carbon Monoxide (CO), and Reactive Organic Gases (ROG) (LDN Consulting, Inc., August 1, 2018, Table 1, Page 2). When compared to the significance thresholds established by the SCAQMD, no pollutant was identified as expected to exceed such thresholds for the daily construction emissions (Ibid. Table 3, page 3). Likewise, when compared to the significance thresholds established for daily operational air quality emissions, no pollutant will exceed such thresholds on a long-term basis (Ibid. Table 4, Page 4). Therefore, no impacts related to pollutants are identified that warrant further mitigation.

A Health Risk Screening Letter was also prepared by LDN Consulting, February 16, 2016 and updated June 13, 2016, which identified potential health risks in particular from toxic air contaminants (TACs) originating from Interstate 15 which lies along the western boundary of the proposed residential portion of the overall project. Health risk impacts such as elevated cancer risk can exist when sensitive receptors such as residential uses are located in proximity to sources of air pollutants that emit TACs of particular concern. Generally, risks are stated to be greater for sensitive receptors within 500 feet of a freeway or busy traffic corridor calculated based on a 70-year lifetime exposure and meteorological data. According to the study, under SCAQMD guidance, an excess cancer risk significance threshold is set at 10 in one million (LDN Consulting, Inc. [SCAQMD, 2015], Feb. 16, 2016, Page 2). The evaluation prepared by LDN utilized the latest computer modeling to estimate concentrations of particulate matter that would occur at select locations along the perimeter of the site nearest to the I-15 Freeway and to Dos Lagos Drive.

The IS/MND that was prepared for CUP16-002 entitling the 276-unit apartment complex on the westerly side of Planning Area 1 imposed mitigation measures to reduce potential health risk impacts to a level below significance. Since those measures were applicable to, and will be carried out with, the residential development of Planning Area 1, those measures are hereinafter noted for reference only. These measures remain pertinent as the commercial project under PP2018-003 includes a fueling facility with 10 pumps (20 stations) that will be in proximity of some of the apartment units in the first phase of Planning Area 1. The fueling facility is subject to regulations and separate permitting by the SCAQMD.

CUP16-002 Mitigation Measures – For Reference

- (1) *Each unit shall be installed with mechanical air quality filtration system with fresh air intake having a minimum efficiency reporting value (MERV) of 13. Such system must be clearly displayed on all plans for plan check and construction.*
- (2) *The developer shall provide written disclosure in the leasing documents for each unit that is located within 300 feet of the existing gasoline station located to the south of the project site across Dos Lagos Drive regarding the potential health risks to the residents associated with potential exposure to benzene that may be emitted from gasoline refueling operations (South Coast Air Quality Management District correspondence dated June 10, 2016, Page 2, citing Guidance for performing a gasoline dispensing station health risk assessment "Risk Assessment Procedures – Appendix X").*

6. TRANSPORTATION/TRAFFIC:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with an applicable congestion management program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Change in air traffic patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Traffic hazards from design features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Emergency access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with alternative transportation policies (adopted policies, plans or programs for public transit, bicycle or pedestrian facilities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

When the Dos Lagos Specific Plan was adopted, it was accompanied by an Environmental Impact Report that identified potential impacts and mitigation measures associated with the master plan itself. The subject site was part of the evaluation but at the time was designated for commercial retail, and the traffic impacts were aggregated with the overall master plan. In 2012, when the subject site was re-designated to allow for the potential for mixed land uses that included up to 450 multi-family units in Planning Area 1, a subsequent analysis was prepared by Linscott, Law & Greenspan (July 27, 2012) to evaluate anticipated impacts to traffic and circulation based on the land use change that was proposed in 2012. The increase in residential dwelling units coupled with the decrease in commercial square footage resulted in a net decrease of daily trips for the overall Dos Lagos Specific Plan area (43,949 two-way daily trips reduced to 36,497 two-way daily trips, a net decrease of 7,452 daily trips).

The development of Planning Area 1 was further evaluated in a Traffic Impact Analysis prepared by Linscott, Law & Greenspan, Engineers (LL&G) dated December 29, 2015 and summary memo dated December 31, 2015. That analysis evaluated the construction of 276 apartments on the westerly side of Planning Area 1 and included an evaluation for a concept for the development of commercial on the easterly portion of the site, although that development plan was still being designed. The 2015 analysis compared the new project with the original specific plan and concluded at that time a reduction in daily two-way trips from the original Dos Lagos master plan (43,949) to a revised overall trip count of 39,522. While this revised count was an increase of approximately 3,000 daily two-way trips over the 2012 study because of the re-introduction of some commercial uses, that count remained *less than the original analysis* prepared for the overall Dos Lagos area as evaluated in the EIR of 2000.

The 2015 traffic study estimated the project would produce 8,801 total daily trips reduced by 3,524 trips that accounted for *internal capture* and pass-by visits for a net ADT of 5,277 (LLG Memo dated December 31, 2015). *Internal capture* is a term that characterizes reduced vehicle trips based on the proximity of uses that can foster pedestrian activity over vehicle use. The project is designed such that the residents in the area, not just in Planning Area 1, can find supportive commercial uses within walking distance. Similarly, *pass-by* credit is factored into the calculations as well, which means vehicle visits to and from the site that would already be on the adjacent roadway system and incidentally stop at the project site. Those trips do not begin or end with the project site, and therefore, can be discounted because the project does not generate those vehicles that happen to already be on the road in the area.

The 2015 traffic study for Planning Area 1 was updated by LL&G (dated May 21, 2018 and July 30, 2018 Table 5-2) to include the commercial portion now refined in its scope. The updated study calculated the *internal capture* that can be expected based on the mixed-use nature of the project and *Institute of Transportation Engineers* (ITE) Guidelines. Based on the residential unit count and floor area of all Planning Area 1 uses, average daily trips will total 9,012 minus 4,285 internal capture and pass-by trips for a net total of 4,727 average daily trips. Morning peak hour trips (entering and exiting)

are projected at 351, and evening peak hour trips (entering and exiting) are projected at 312.

It is noteworthy that internal capture and pass-by estimates are increased from the prior study because the commercial portion is now defined, whereas before, the commercial development plan was conceptual only.

The 2015 traffic study (CUP16-002 and PM 37070) evaluated ten intersections and three access points into the site from Temescal Canyon Road. The study identified one mitigation measure that was to be warranted in the Year 2018 with the residential project, and that was a signal upgrade at Temescal Canyon Road and Cajalco to provide for an eastbound right-turn overlap traffic signal phasing and restriction of northbound U-turns. What this means is that a right-turn from Temescal Canyon Road onto eastbound Cajalco would get a green arrow that will coincide with the left turn arrow on westbound Cajalco Road to southbound Temescal Canyon Road. U-turns will be restricted so as not to conflict with the green arrow movements. The 2015 traffic analysis prescribed mitigation that the developer is responsible for a 100% fair share contribution to pay for this future signal upgrade at a timing established by the Public Works Director. No other mitigation measures were warranted under those approvals.

The updated study also evaluated, in accordance with the city's scoping requirements, ten existing key study intersections in the area and four project driveways, three onto Temescal Canyon Road and one onto Dos Lagos Drive. New mitigation is recommended that supersedes the mitigation measure prescribed by the 2015 study and is expressed as follows:

Mitigation Measure:

1. Year 2020 With Project Traffic Conditions

The results of the Year 2020 With Project intersection capacity analysis presented previously in Table 8-1 indicate that the proposed Project will impact one (1) of the key study intersections. The following improvements listed below have been identified to mitigate the traffic impacts at the intersection impacted by Project traffic:

▪ ***Temescal Canyon Road at Cajalco Road:*** Restripe the northbound approach to provide a third exclusive northbound left-turn lane and restripe the shared northbound through/right-turn lane to an exclusive northbound right-turn lane. Install eastbound right-turn overlap traffic signal phasing and restrict northbound U-turn movements.

2. Year 2020 With Project Traffic Conditions

The developer shall be responsible for a 30.36% fair share contribution for the improvements project fair share percentage for the impacted intersection of Temescal Canyon Road at Cajalco Road. As the total cost of the improvements is estimated to be \$20,000, the Project's fair share contribution is approximately \$6,072.00.

7. BIOLOGICAL RESOURCES:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Endangered or threatened species/habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Riparian habitat or sensitive natural community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Adversely affects federally protected wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interferes with wildlife corridors or migratory species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflicts with local biological resource policies or ordinances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflicts with any habitat conservation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed amendment will not impact biological resources as there are no water courses or vegetation existing on the site. The project site was previously rough graded when the commercial center on the adjoining property to the north was developed in 2005. Additional grading occurred with the development of the apartment units on the west side of Planning Area 1 in 2016 and 2017. The project site and plan area were analyzed under the Dos Lagos Specific Plan EIR with all potential impacts to biological resources mitigated below a significant level. As such, no further analysis or mitigation is warranted.

The developer is required to pay applicable fees related to Riverside County's Multiple Species Habitat Conservation Plan, or MSHCP. This MSHCP is a habitat conservation plan for Western Riverside County that identifies land to be preserved for habitat for threatened, endangered or key sensitive populations of plant and wildlife species. The project site is not located with a Criteria Area, nor is the project site located within the Burrowing Owl survey area as identified in the MSHCP; therefore, the applicant is only subject to the MSHCP mitigation fee for development. This fee will be used to acquire and preserve vegetation communities and natural areas, which are known to support these sensitive species in various locations through Riverside County.

Scale broom is vegetation native to California and Arizona. It grows in sandy and gravelly soils in washes and similar alluvial environments. This specie is adapted to withstand and recover from the extreme conditions caused by flooding in its native environment. Its adaptations include deep roots to anchor the plant in case of heavy scouring of the sediment substrate, and a large underground stem (or rootstock) that stores energy and enables re-sprouting if the above-ground stem is broken off or if the plant is buried as a result of flooding. Because of the energy stored in the rootstock, scale broom is able to exert tremendous pressure at the stem tip. This adaptation allows scale broom to survive under heavy sediment and may also enable it to raise or break through man-made structures under some circumstances. Therefore, prior to the issuance of any grading permit or construction of public improvements the Public Works Department requires that the developer have a qualified botanist, plant taxonomist, or field biologist (specializing in native plants) survey the site for the presence of the scale broom plant. If the plant is present on the site, the developer is required to eradicate it by means identified by the specialist, such as excavating it including the root ball with the application of herbicides. Compliance with the Public Works Department's grading permit requirements and the recommendations for removal of the plant, if applicable, will reduce the potential impacts to a less than significant level. Therefore, no addition mitigation pertaining to scale broom is required of the developer.

8. MINERAL RESOURCES:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Loss of mineral resource or recovery site | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion:

Per Figure 4.5-7 of the General Plan Technical Background Report, the project site does not contain mineral resources. Therefore, the project does not impact mineral resources, and no mitigation is warranted.

9. HAZARDS AND HAZARDOUS MATERIALS:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Transport, use or disposal of hazardous materials | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Risk of accidental release of hazardous materials | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Hazardous materials/emissions within ¼ mile of existing or proposed school | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Located on hazardous materials site | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Conflict with Airport land use plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Impair emergency response plans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Increase risk of wildland fires | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

A Phase I Environmental Site Assessment (ESA) was prepared by Property Solutions, August 12, 2009. The assessment summarized the history of the greater Dos Lagos area which was historically a silica mine from the 1980's to 1990's. In 2003, Planning Area 1 was included as part of a mass grading operation for the Dos Lagos master plan area. Subsequently, additional grading took place in 2016 and 2017 in Planning Area 1 to accommodate the apartment project now being constructed on the westerly portion of the planning area and in anticipation of eventual development of the commercial portion on the easterly portion. The conclusions that were reported in the referenced Phase 1 ESA included the area within Planning Area 1 as well. No miscellaneous storage containers, above ground storage tanks (ASTs), underground storage tanks (USTs), vent pipes or fill pipes, septic systems or cesspools were observed on the project site. At the time of inspection, there was no unusual staining or indications of a surface release observed on the project site such as discolored soil, distressed vegetation, unusual odors, pits ponds or lagoons. No sign of hazardous material storage, generation, or usage was observed on the project site. As such, hazards or hazardous materials are not considered an impact and no mitigation is warranted.

10. NOISE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed noise level standards	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure to excessive noise levels/vibrations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Permanent increase in ambient noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Temporary increase in ambient noise levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with Airport Land Use Plan noise contours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

A noise study was prepared dated January 25, 2016 (LDN Consulting, Inc.) which addressed the residential portion of Planning Area 1 and the commercial portion in its conceptual layout. The study recommended noise attenuating measures that would benefit the more sensitive residential side of the Planning Area by requiring a six-foot high barrier along Dos Lagos Drive and the Interstate 15 on-ramp (Figure 5-2 of the LDN Study) to attenuate noise at all ground floor outdoor areas. Furthermore, dual pane windows and mechanical ventilation measures are required to attenuate noise for the residential units themselves. Those specific measures will be carried out with the construction of the residential portion (CUP16-002). No special mitigation applied in particular to the commercial portion of Planning Area 1 as it is less of a sensitive receptor.

A temporary increase in ambient noise levels is expected during the construction of the commercial project. Construction activities will result in a temporary increase in noise levels in the immediate area. The Corona Municipal Code prohibits construction noise between the hours of 8:00 p.m. to 7:00 a.m. Monday through Saturday and 6:00 p.m. to 10:00 a.m. Sundays and federal holidays. Adherence to the CMC limitations will prevent noise impacts to nearby sensitive receptors, and therefore, no special mitigation measures apply in this regard for the commercial component of Planning Area 1.

11. PUBLIC SERVICES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Police protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks & recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The commercial portion of Planning Area 1 will not generate additional students to be accommodated by the Corona Norco Unified School District. The residential portion of Planning Area 1 is subject to the payment of statutory school fees at the time of building permit issuance as implemented under CUP16-002.

The development does not warrant the construction of additional public services such as fire facilities, police facilities, schools, or other similar facilities. As stipulated in the Dos Lagos Development Agreement, the developer will pay applicable development impact fees at the time of issuance of building permits for the project. Over time these fees are used by the city to fund upgrades and improvements to certain infrastructure.

12. UTILITIES:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Involve construction/expansion of water or wastewater treatment facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Involve construction/expansion of storm drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Sufficient water supplies/compliance with Urban Water Management Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Adequate wastewater treatment capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Adequate landfill capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with solid waste regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The City of Corona Department of Water & Power (CDWP) will provide domestic water supply to the entirety of Planning Area 1. The CDWP currently provides municipal water service to approximately 167,764 customers including residential, commercial, industrial and other land uses through approximately 640 miles of infrastructure plus 21 booster stations and 17 storage tanks. Twenty-two production wells draw from the groundwater basins providing approximately 50% of its water supply with the balance imported from the Western Municipal Water District supplied by the Colorado River and the State Water Project. The CDWP's Urban Water Management Plan (UWMP2015-2016) sets forth expected supply and demand within the service area based on land uses that have been entitled including the Dos Lagos master plan that includes Planning Area 1. Based on the draft Technical Background Report (TBR) for the city's General Plan which is currently undergoing an interim technical update, the city forecasts adequate water supplies in normal years to meet demand through 2040 (Draft General Plan TBR, June 2018, Page 3-34).

More historically, impacts to potential water resources were also evaluated under the Dos Lagos Specific Plan EIR, and the EIR found the potential impacts to be below a significant level of significance. Therefore, mitigation was not warranted. The more recent 2012 amendment which resulted in the addition of 495 residential dwellings across the Dos Lagos Specific Plan area included an evaluation for water supply. A Water Supply Assessment (WSA) was prepared (Brezack and Associates Planning, October 18, 2012) which concluded that sufficient water supplies are available to meet future demands of the service area plus the additional 495 residential dwelling units proposed for Planning Area 1 under that amendment. The evaluation factored in the city's implementation of groundwater management strategies such as groundwater recharge and increased recycled water supplies, which will serve to decrease the city's potable water supplies allowing the city to continue sustainable groundwater pumping for the city's water service area inclusive of the project site. Furthermore, the residential portion of Planning Area 1 consists of 276 apartment units, a significant underbuilding of what was entitled under the referenced 2012 amendment. The subject site had an original land use of commercial, and therefore, was included in the previous evaluations with that land use as well. Therefore, the proposed project is an implementation of the intended development of the site, and no impacts to water supply will result from the commercial development of Planning Area 1, and no mitigation is warranted.

The CDWP owns and operates wastewater treatment facilities with sufficient capacity to serve the proposed project. Specifically, the project will connect to Wastewater Treatment Plant #3, which currently treats approximately 600,000 gallons per day, but has the capacity to treat one (1) million gallons per day. Master planned infrastructure was constructed at the

time initial development of the Dos Lagos Specific Plan area occurred. The subsequent amendment that increased the overall unit count by 495 units resulted in an anticipated generation rate of approximately 185,800 gallons of additional wastewater per day, thereby bringing the total amount of wastewater treated per day to approximately 785,000 gallons, which is still within the limit of the treatment plant's overall capacity. The proposed project is within the assumed parameters for development of Planning Area 1. Therefore, the proposed project poses less than a significant impact, and no mitigation in this regard is warranted.

Southern California Edison and Southern California Gas will provide power and natural gas services to the project site. At the time of the project grading, the gas and power lines, if needed will be extended to the project site by the developer, as per other residential development throughout the city. The city's contracted waste hauler Waste Management will provide waste collection and disposal services. The amount of commercial gas, power and waste generated by the development is not expected to impact these services. AT&T will provide telephone services to the project site. The developer's coordination with AT&T will ensure timely service to the new site. Therefore, no further mitigation measures are required of the applicant.

13. AESTHETICS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Scenic vista or highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Degrade visual character of site & surroundings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Light or glare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Scenic resources (forest land, historic buildings within state scenic highway)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The project site is not considered a scenic vista per the city's Environmental Resources Element of the General Plan. Development of the project site will be regulated by the Dos Lagos Specific Plan and the municipal code. The project's design adheres to the guidelines established for commercial development in the Dos Lagos master planned area. Varied building setbacks and landscape buffers are part of the project design for aesthetic enhancement. Furthermore, on-site lighting will be diffused and oriented in a downward manner to further mitigate the potential impacts.

14. CULTURAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Historical resource	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Archaeological resource	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Paleontological resource or unique geologic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Disturb human remains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The CEQA topic related to Cultural Resources was analyzed under the Dos Lagos Specific Plan EIR for the full project area of Dos Lagos most of which contained a silica mine that was filled as part of the grading operations. A more localized analysis was prepared for Planning Area 1 along with two other potential development sites unrelated to this proposal. This analysis done by Cogstone, dated March 2016, concludes that the subject site has low potential for prehistoric or historic archaeological resources. The site was historically excavated and filled up to 14 feet and re-compacted in anticipation of future development. However, the study still prescribes that if unanticipated cultural materials are unearthed during construction, work should be halted in the area until a qualified archaeologist can assess the significance of the find. Work may resume immediately a minimum of 50 feet away from the find.

In accordance with standard mitigation required for the protection of cultural resources and in keeping with applicable laws, if human remains are encountered, State 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 PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a MLD (Most Likely Descendent). With the permission of the landowner or his/her authorized representative, the descendent may inspect the site of the discovery. The descendent must complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Therefore, to ensure the preservation of any potential cultural or Paleontological resources, mitigation is warranted to ensure the project will have a less than significant effect on the environment with respect to cultural resources as herein outlined.

Mitigation Measures:

3. *If unanticipated cultural materials are unearthed during construction, work should be halted in the area until a qualified archaeologist can assess the significance of the find. Work may resume immediately a minimum of 50 feet away from the find.*
4. *If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) must then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98.*
5. *The landowner shall relinquish ownership of all cultural resources, including sacred items, burial goods and all archaeological artifacts that are found on the project area to the appropriate Tribe for proper treatment and disposition which may entail confidential interment at the project site.*
6. *All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.*
7. *If inadvertent discoveries of subsurface archaeological/cultural resources are discovered during grading, the Developer, a qualified archaeologist, and the Tribe shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources. The project*

archaeologist shall be responsible for determining the significance of the cultural resource and mitigation for such resources. The archeologist shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources and shall take into account the religious beliefs, customs, and practices of the Tribe(s).

- 8. *If large fossil specimens are encountered during additional grading, the applicant shall immediately cease operation and retain a qualified and trained paleontologist.*
- 9. *All fossils collected during the project will be prepared to a reasonable point of identification. Excess sediment or matrix will be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified will be provided to the museum repository along with the specimens.*
- 10. *A report documenting the results of the monitoring and salvage activities and the significance of the fossils shall be prepared and submitted to the Community Development Department.*

15. AGRICULTURE RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Williamson Act contract | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conversion of farmland to nonagricultural use | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The site is not under any agricultural preserve contract pursuant to the Williamson Act as the project site was previously used for mining purposes from as early as 1980 to as late as the 1990's and not for agricultural uses. Therefore, development of the property will not result in impacts to agricultural operations and no mitigation is warranted.

16. GREENHOUSE GAS:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Generate greenhouse gases | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with a plan, policy or regulation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The City of Corona adopted a Climate Action Plan (CAP) in 2012 which utilizes the *Greenhouse Gas Emissions CEQA Thresholds and Screening Tables* to determine whether or not a project would have a significant impact from greenhouse gas emissions. The screening tables establish options that result in certain levels of greenhouse gas emission reductions attributable to certain design and construction measures incorporated into development projects. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the city's CAP and would thus be considered less than significant. Utilizing the screening tables would also contribute to the city's meeting its GHG emissions reductions target of the year 2020.

The residential component on the westerly portion of Planning Area 1 entitled in 2016 under CUP16-002 was evaluated with the city's CAP screening tables proposed by the applicant, and mitigation was applied that required compliance with those point-garnering measures.

The developer has chosen the option to prepare a separate project specific GHG analysis for the commercial component of the project. LDN Consulting, Inc. has prepared an analysis dated August 2, 2018 that calculates GHG emissions related to construction and daily operations utilizing the California Emissions Estimator (CalEEMod) developed for the SCAQMD area and the state's mobile source emission inventory.

Construction activities are not expected to exceed the 3,000-metric ton annual threshold and is considered less than significant (LDN study, Page 3). Operational emissions include energy, mobile, solid waste, water use, and area source emissions which are also estimated using the same CalEEMod calculator. The baseline year is 2008, and the level of emissions for the baseline year in metric tons is 6,240.07. Build-out emissions in 2020 are estimated to be 5,045.80 which is 19.1% under the 2008 baseline year (LDN study, Pages 4-5). This reduction is attributable to increased efficiencies to be implemented through the latest Title 24 Energy standards (2016), water conservation ordinances and standards, construction waste recycling, and other measures that work in concert to reduce overall GHG emissions by the mandated standard of 15% below a Business as Usual benchmark that would exist if all these measures were not implemented. GHG emissions, therefore, are mitigated below a significant level, and no further mitigation is warranted.

17. TRIBAL CULTURAL RESOURCES

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. 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), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

See 14 above for a detailed discussion and mitigation measures that apply to Tribal Cultural Resources.

18. MANDATORY FINDING OF SIGNIFICANCE:

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Fish/ wildlife population or habitat or important historical sites | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Cumulatively considerable impacts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantial adverse effects on humans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Short-term vs. long-term goals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The proposed development will not have a significant negative impact on fish or wildlife as the site contains no bodies of water or known wildlife habitat. The site is vacant and previously rough graded with existing commercial development on the adjacent property to the north and major street frontage on three frontages including Interstate 15 along the west site boundary. There is no evidence before the city that the project will have an adverse effect on fish or wildlife resources or cumulatively considerable impacts.

19. PREVIOUS ENVIRONMENTAL ANALYSIS:

Earlier analysis may be used when one or more of the environmental effects have been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063). One or more portions of this Initial Study may have relied upon previous analysis in the Dos Lagos Environmental Impact Report of 2000 (SCH 1999111001), the 2012 IS/MND prepared for the General Plan Amendment (GPA12-003) and Specific Plan Amendment (SPA12-004) adopted December 19, 2012, and the IS/MND prepared for PM 37070 and CUP16-002 adopted July 6, 2016 containing pertinent evaluation related to the subject project site.

DOCUMENTS INCORPORATED BY REFERENCE:

City of Corona, General Plan, March 2004
Dos Lagos Specific Plan, June 21, 2000
Annexation 94 and Dos Lagos Specific Plan EIR, David Evans and Associates, June 21, 2000
IS/MND GPA 12-003, SPA12-004, V12-002, CUP12-005, November 1, 2012
IS/MND PM 37070 and CUP16-002, July 6, 2016
Hydrology Study, Land Development Design Company, LLC (LDDC), December 31, 2015.
Water Quality Management Plan, Land Development Design Company, LLC (LDDC), December 31, 2015.
Noise Study, LDN Consulting, Inc., January 25, 2016.
Cultural Resources Technical Report, Cogstone, March 2016.
Air Quality Screening Letter, LDN Consulting, Inc., January 25, 2016.
Health Risk Screening Letter, LDN Consulting, Inc., February 16, 2016.
Greenhouse Gas Emissions Screening Letter, LDN Consulting, Inc., August 2, 2018.
Traffic Impact Analysis Report, LL&G Engineers, May 21, 2018, Revised July 31, 2018.
California State Department of Finance, Demographic Research Unit, Table 2: E-5 City/County Pop. and Housing Estimates (related to companion project under CUP16-002).

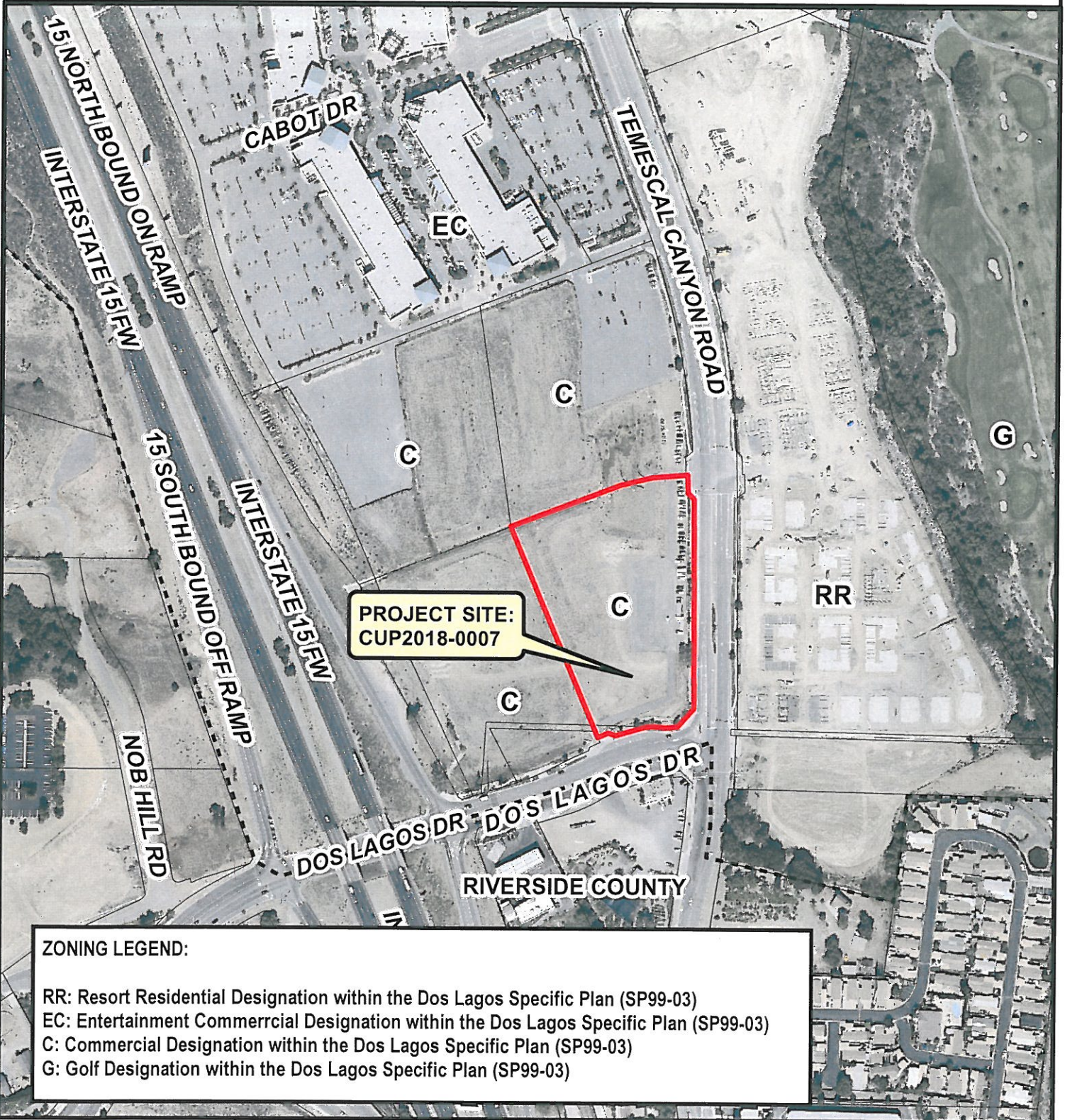
**MITIGATION MONITORING AND REPORTING PROGRAM
CITY OF CORONA**

No	Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
1	<p>Year 2020 With Project Traffic Conditions <i>The results of the Year 2020 With Project intersection capacity analysis presented previously in Table 8-1 indicate that the proposed Project will impact one (1) of the key study intersections. The following improvements listed below have been identified to mitigate the traffic impacts at the intersection impacted by Project traffic:</i></p> <p><u>Temescal Canyon Road at Cajalco Road:</u> Restripe the northbound approach to provide a third exclusive northbound left-turn lane and restripe the shared northbound through/right-turn lane to an exclusive northbound right-turn lane. Install eastbound right-turn overlap traffic signal phasing and restrict northbound U-turn movements.</p>	Conditions of Approval	Plan check and field inspection	Prior to permit issuance and/or C of O	Public Works	
2	<p>Year 2020 With Project Traffic Conditions <i>The developer shall be responsible for a 30.36% fair share contribution for the improvements project fair share percentage for the impacted intersection of <u>Temescal Canyon Road at Cajalco Road.</u> As the total cost of the improvements is estimated to be \$20,000, the Project's fair share contribution is approximately \$6,072.00.</i></p>	Conditions of Approval	Plan check and field inspection	Prior to permit issuance and/or C of O	Public Works	
3	<p><i>If unanticipated cultural materials are unearthed during construction, work should be halted in the</i></p>	Conditions of	Plan check	During	Field crews,	

	<i>area until a qualified archaeologist can assess the significance of the find. Work may resume immediately a minimum of 50 feet away from the find.</i>	Approval	and inspection	grading operations	inspection and, if warranted, project archaeologist	
4	<i>If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) must then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection, and, if warranted, project archaeologist	
5	<i>The landowner shall relinquish ownership of all cultural resources, including sacred items, burial goods and all archaeological artifacts that are found on the project area to the appropriate Tribe for proper treatment and disposition which may entail confidential interment at the project site.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection and, if warranted, project archaeologist	
6	<i>All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection and, if warranted, project archaeologist	
7	<i>If inadvertent discoveries of subsurface</i>	Conditions of	Plan check	During	Field crews,	

	<i>archaeological/cultural resources are discovered during grading, the Developer, a qualified archaeologist, and the Tribe shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources. The project archaeologist shall be responsible for determining the significance of the cultural resource and mitigation for such resources. The archeologist shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources and shall take into account the religious beliefs, customs, and practices of the Tribe(s).</i>	Approval	and inspection	grading operations	inspection and, if warranted, project archaeologist	
8	<i>If large fossil specimens are encountered during additional grading, the applicant shall immediately cease operation and retain a qualified and trained paleontologist.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection and, if warranted, project archaeologist	
9	<i>All fossils collected during the project will be prepared to a reasonable point of identification. Excess sediment or matrix will be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified will be provided to the museum repository along with the specimens.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection and, if warranted, project archaeologist	
10	<i>A report documenting the results of the monitoring and salvage activities and the significance of the fossils shall be prepared and submitted to the Community Development Department.</i>	Conditions of Approval	Plan check and inspection	During grading operations	Field crews, inspection and, if warranted, project archaeologist	

AERIAL & ZONING MAP



Date: 08/09/2018

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