RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.1

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1042FL23 – City of Jurupa Valley

APPROVING JURISDICTION: City of Jurupa Valley

JURISDICTION CASE NO: MA23177 (General Plan Amendment and Change of Zone).

LAND USE PLAN: 2004 Flabob Airport Land Use Compatibility Plan

Airport Influence Area: Flabob Airport

Land Use Policy: Zone D

Noise Levels: Below the 55 CNEL noise contour from aircraft noise

MAJOR ISSUES: None

RECOMMENDATION: Staff recommends that the General Plan Amendment, and Change of Zone be found <u>CONSISTENT</u> with the 2004 Flabob Airport Land Use Compatibility Plan, subject to the conditions included herein.

PROJECT DESCRIPTION: A City-initiated proposal to amend its General Plan Lan Use designation from Commercial Retail (CR) to Medium High Density Residential (MHDR) in an effort to correct erroneous GIS mapping information. The City also proposes to change sites zoning from Rubidoux Village Commercial (R-VC) to General Residential (R-3).

PROJECT LOCATION: The project site is located southerly of Mission Boulevard at 3883 Wallace Street, approximately 1,501 feet northeasterly of the northeasterly terminus of Runway 6-24 at Flabob Airport.

BACKGROUND:

Residential Density: The site is located in Compatibility Zone D of the Flabob Airport Influence Area (AIA), which restricts residential density to either below 0.2 dwelling units per acre or above 5.0 dwelling units per acre.

The proposed Medium High Density Residential land use designation restricts density from 5.0 to 8.0 dwelling units per acre, which is consistent with Zone D residential density criteria of greater than 5.0 dwelling units per acre.

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses specifically prohibited or discouraged in Compatibility Zone D.

<u>Noise:</u> The site is located outside the 55 CNEL contour for Flabob Airport Land Use Compatibility Plan relative to aircraft noise. Therefore, no special measures to mitigate noise are required at this location.

<u>Part 77</u>: The elevation of Runway 6-24 at its easterly terminus is approximately 766.8 feet above mean sea level (AMSL). As the runway length does not exceed 1,501 feet, the relevant slope for purposes of determining Federal Aviation Administration notice requirements is 50:1. At a distance of approximately 1,501 feet from the closest point of the runway, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 797 feet AMSL. Although no development is proposed at this time, future projects will be analyzed to determine if review by the Federal Aviation Administration Obstruction Evaluation Service (FAA OES) is required.

<u>Hazards to Flight:</u> Land use practices that attract or sustain hazardous wildlife populations on or near airports significantly increase the potential of Bird Aircraft Strike Hazards (BASH). The FAA strongly recommends that storm water management systems located within 5,000 or 10,000 feet of the Airport Operations Area, depending on the type of aircraft, be designed and operated so as not to create above-ground standing water. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. All vegetation in and around detention basins that provide food or cover for hazardous wildlife should be eliminated. (FAA Advisory Circular 5200-33C). The nearest portion of the project is located 1,501 feet from the runway, and therefore would be subject to the above requirement at the time a development project is proposed.

<u>Open Area:</u> Compatibility Zone D requires 10% of open area for projects 10 acres or larger be set aside as open area that could potentially serve as emergency landing areas. Based on the project size of 0.24 acres, the provision of ALUC open area is not required.

General Plan Amendment/ Change of Zone: A City-initiated proposal to amend its General Plan Lan Use designation from Commercial Retail (CR) to Medium High Density Residential (MHDR) in an effort to correct erroneous GIS mapping information. The City also proposes to change sites zoning from Rubidoux Village Commercial (R-VC) to General Residential (R-3). The amendments would be as, or more consistent with the Compatibility Plan as long as the underlying development is consistent with the compatibility criteria.

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NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY. THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

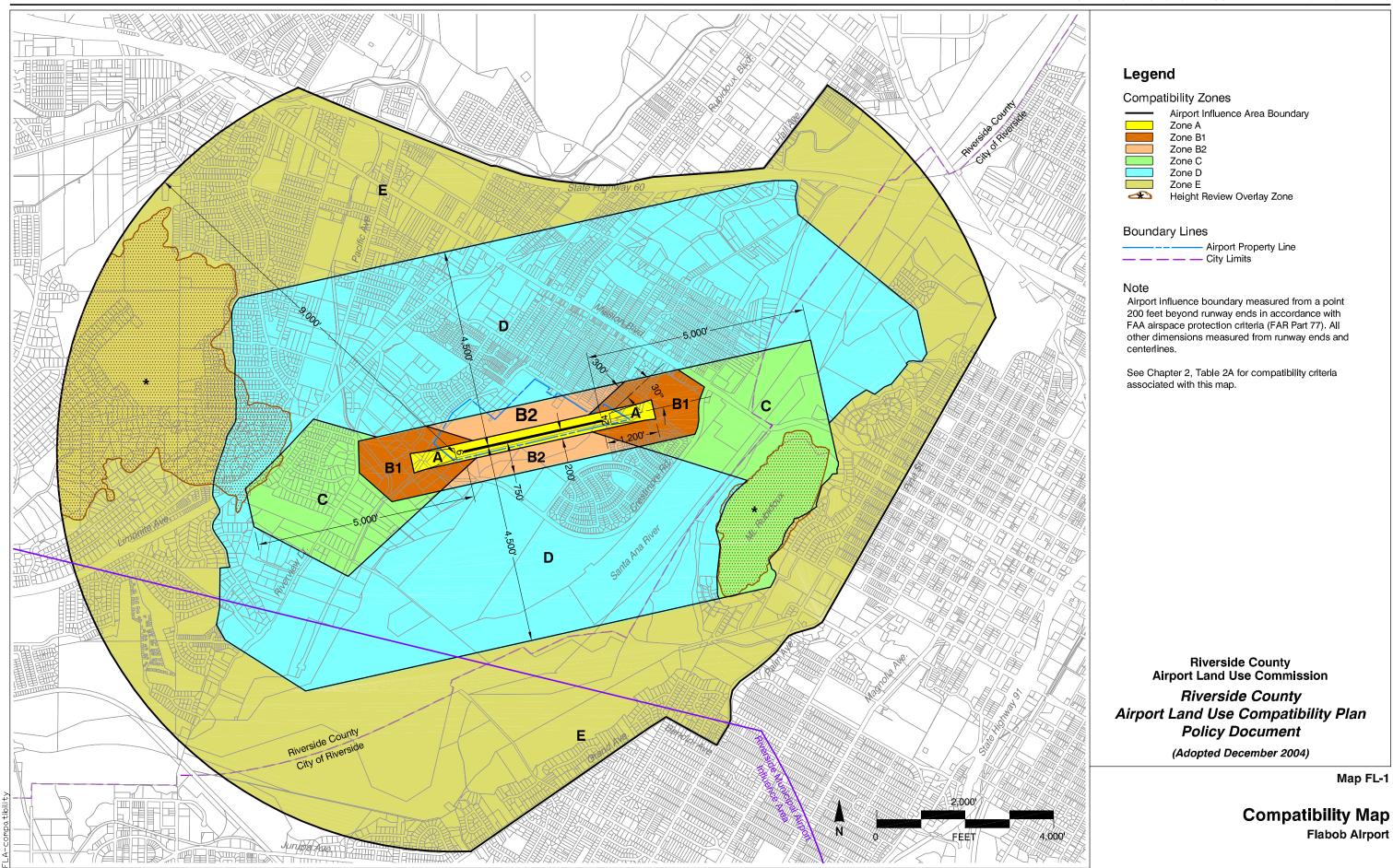
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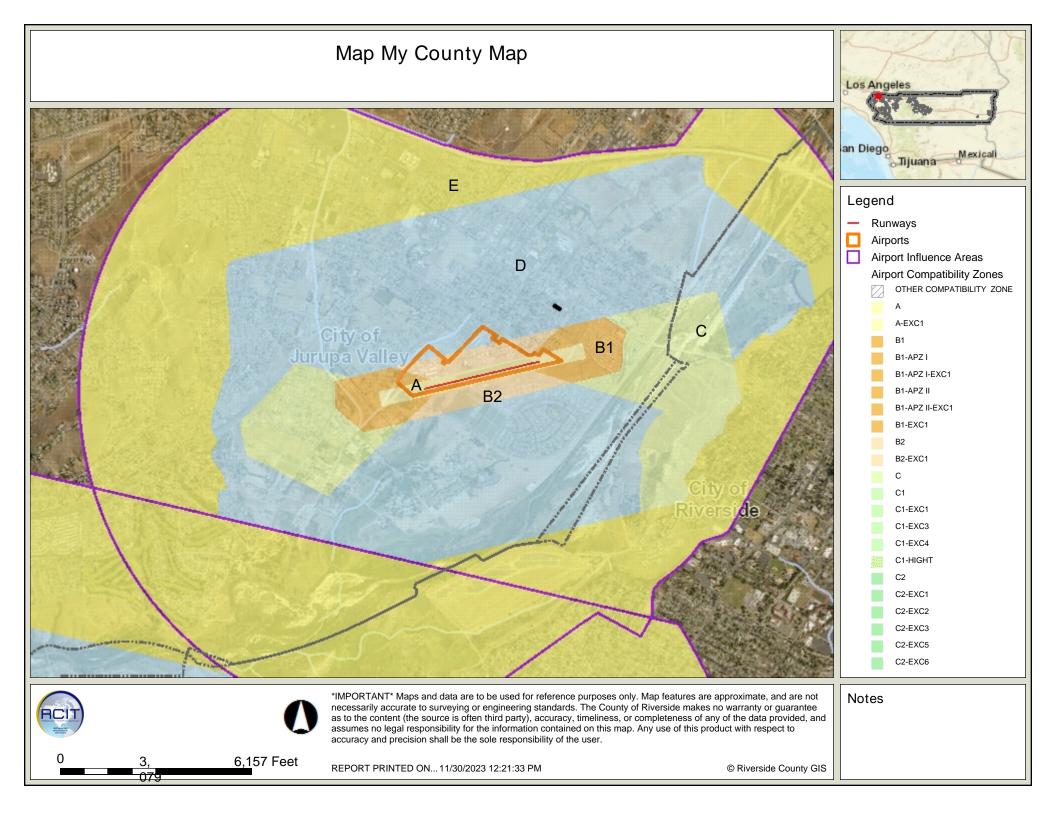


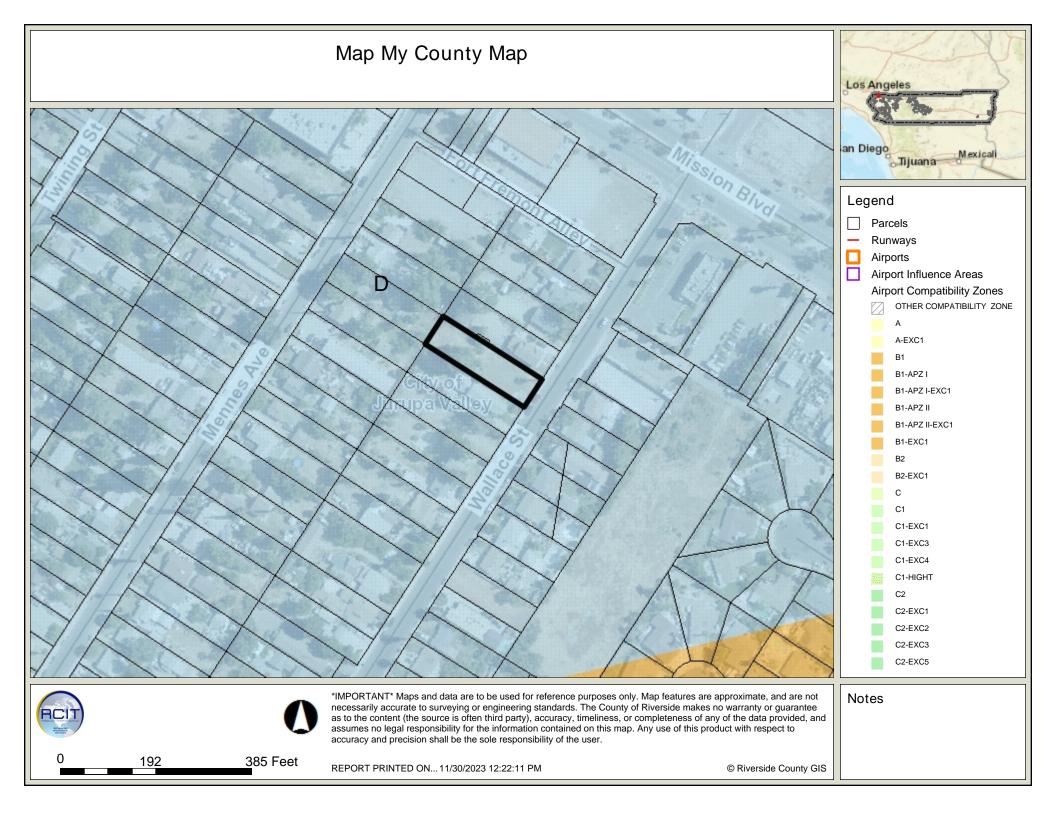
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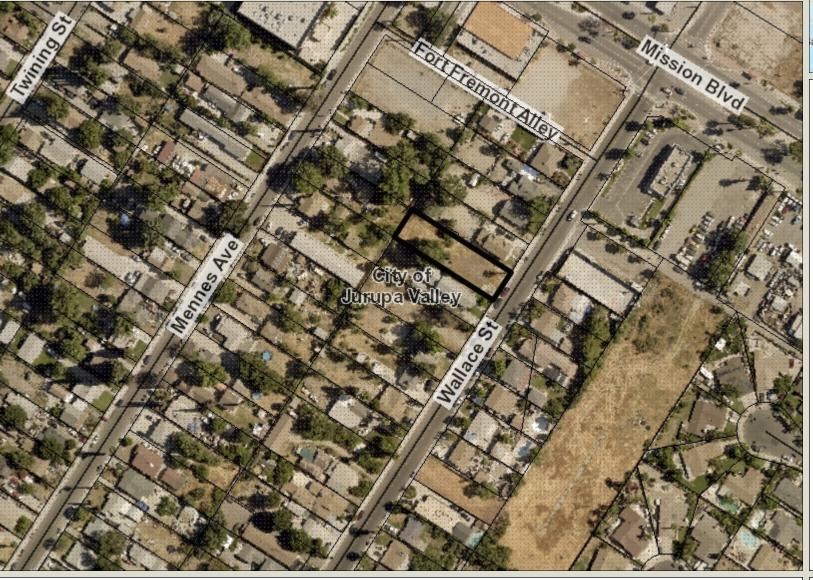
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Map FL-1











Legend

- Parcels
- County Centerline Names
- County Centerlines
- Blueline Streams
- City Areas
- World Street Map





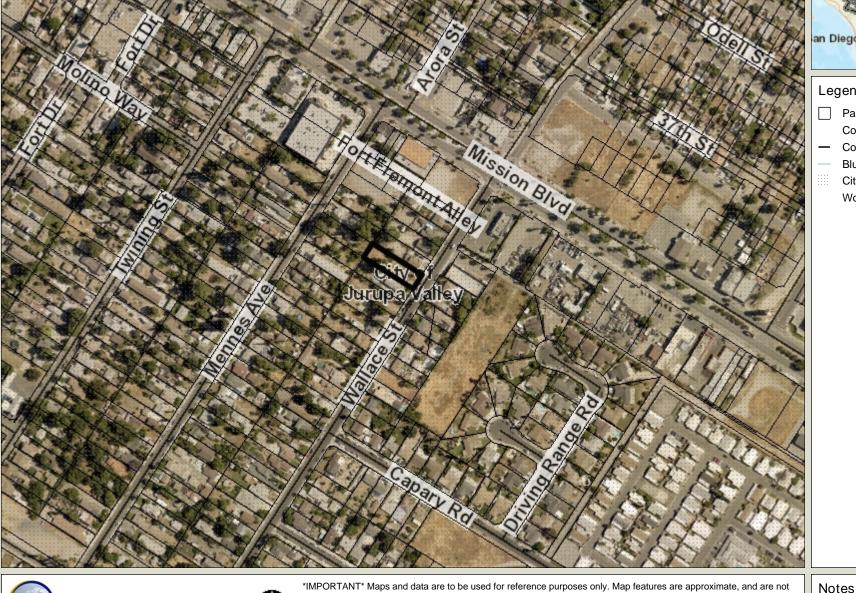
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Notes

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Legend

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- **County Centerlines**
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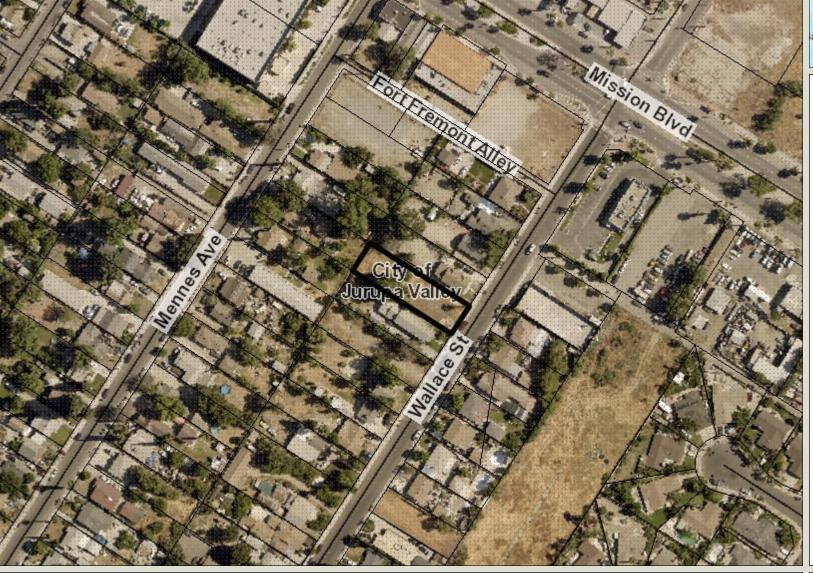


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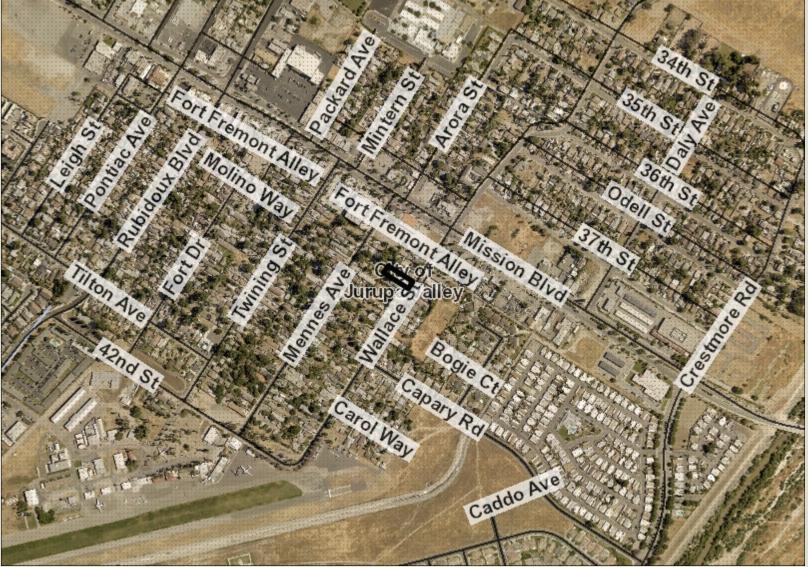


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County Centerline Names

- **County Centerlines**
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1,539 Feet

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The Rubidoux Village central core is a functioning and developing commercial corridor that is intended to flourish into a walkable and lively downtown district. However, many of properties located along the perimeter of the Rubidoux Village are occupied by legal nonconforming single-family residential homes. Because residential homes are not a permitted use in the current R-VC Zone, the existing homes are deemed legal nonconforming uses since they are not currently a permitted use, but were established in a time where single family homes were permitted. See Exhibit C for zoning map. Because most of the properties that lie on the outskirts of the district are established residences, the properties within the district seamlessly integrate to the conforming residential properties that lie beyond the district creating ambiguity in the district's boundary.

The site is 0.24-acre vacant property that lies on the outskirts of the Rubidoux Village Town Center. The property is part of an established residential neighborhood and is surrounded by single-family homes including the abutting properties to the north and south. The nearest commercial use lies approximately 164 feet northeast of the subject site. The property has a General Plan Land Use Designation of Commercial Retail (CR), which is intended for retail and service commercial uses including offices, and visitor serving commercial uses. The property is zoned R-VC which is also intended for commercial uses as described above. See Exhibit D for Land Use Map.

Zoning Designations

R-1: One Family Dwelling

R-2: Multiple Family Dwellings

R-3: General Residential

R-VC: Rubidoux Village Commercial

3883 Wallace St

EXHIBIT C – ZONING (RUBIDOUX VILLAGE COMMERCIAL)

Land Use Designations

CR - Commercial Retail

MHDR - Medium High Density Residential

Mission Blod

Misson B

EXHIBIT D – GENERAL PLAN (COMMERCIAL RETAIL)

The site is an undeveloped property that lies between single-family homes. Although the land use designation and zone require that a commercial use be developed on the land, developing a commercial use on a 0.24-acre site surrounded by residential uses in not practical and would create compatibility issues with the surrounding residential neighborhood. Because the site lies on the boundary line of the Rubidoux Village Town Center, the neighboring properties to the south have a different Land Use and Zoning designation. Said properties have a Medium High Density Residential (MHDR) Land Use Designation and have residential zoning designation which allow both single-family and multi-family dwellings. Approving a General Plan Amendment and Change of Zone to change the land use and zoning designation to those that allow residential development would allow an infill development that is more feasible and compatible with the surrounding neighborhood with minimal disruption of the goals and vision that the Rubidoux Village is intended to achieve.

Initiation process

A General Plan Amendment and Change of Zone requires initiation by the City Council. The following considerations apply to the initiation process, which only authorizes the process to begin:

1. Initiation of a General Plan Amendment and Change of Zone does not entail an evaluation of the merits of the proposed project, but only whether to proceed with a formal evaluation process and public hearings.



APPLICATION FOR MAJOR LAND USE ACTION REVIEW

		LUC STAFF ONL	Υ
ALUC Case Numbe	r: ZAP1042FL23	<u>Date Submitted:</u>	
AIA: Flabob		Zone: D	Public Hearing Staff Review
		Applicant	
Applicant Full Name: City of	f Jurupa Valley		
Applicant Address:	8930 Limonite Avenue, Ju	ırupa Valley, CA 925	509
Phone:	951 332 6464 ext. 222	Email: ^{mde}	elrio@jurupavalley.org
	Representative/ P	roperty Owner Co	ontact Information
Representative. Mig	guel Del Rio, Associate Pla		Email: mdelrio@jurupavalley.org
rtoprocomativo			Phone: 951 332 6464 ext 222
Address: 8930 Lime	onite Avenue, Jurupa Valle	y, CA 92509	
Property			
Owner: B.J	l. Ghuman		Email: bjghuman@hotmail.com
			Phone: 626 975 3065
Address: 3883 Wal	lace Street, Jurupa Valley,	CA 92509	
	Loca	al Jurisdiction Ag	encv
		J	,
Agency Name: City	of Jurupa Valley		Phone: 951 332 6464 ext 222
Staff Contact: Migu	el Del Rio, Associate Planr	er	Email: mdelrio@jurupavalley.org
Address: 8930	D Limonite Avenue, Jur	upa Valley, CA 92	2509
Local Agency Case No.:	1A23177		
		Project Location	
Street Address:	3883 Wallace Street, Jur		O9 Gross Parcel Size.: 0.24 acres
Assessor's Parcel N	lo.: 181 063 010		
		Solar	
Is the project propos	sing solar Panels? Yes	No 🗸	If yes, please provide solar glare study. (Only for zone C or higher.)

Site Elevation:(above mean sea level)

Height of Building or structures:

No structures proposed as part of this project

What type of drainage basins are being proposed and the square footage:

No structures or site improvements proposed as part of this project

Notice

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of current and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing)

NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact www.rcaluc.org.

The Jurupa Valley Planning Department should be contacted on non-ALUC issues. For more information please contact City of Jurupa Valley Planner Miguel Del Rio at (951) 332-6464.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to javega@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

ZAP1042FL23 – City of Jurupa Valley – City of Jurupa Valley Case No MA23177 (General Plan Amendment and Change of Zone). A City-initiated proposal to amend its General Plan Lan Use designation from Commercial Retail (CR) to Medium High Density Residential (MHDR) in an effort to correct erroneous GIS mapping information, located northerly of Wallace Street at 3883 Wallace Street. The City also proposes to change sites zoning from Rubidoux Village Commercial (R-VC) to General Residential (R-3). (Airport Compatibility Zone D of the Flabob Airport Influence Area.)

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.2

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1589MA23 – Hinoodeh Holdings, LLC (Representative:

Corinne Mostad)

APPROVING JURISDICTION: City of Perris

JURISDICTION CASE NO: PLN22-05380 (Specific Plan Amendment), PLN22-05379

(Tentative Parcel Map), PLN22-00037 (Development Plan

Review), PLN22-00038 (Development Plan Review)

LAND USE PLAN: 2014 March Air Reserve Base/Inland Port Airport Land Use

Compatibility Plan

Airport Influence Area: March Air Reserve Base/Inland Port Airport

Land Use Policy: Compatibility Zone D

Noise Levels: Below 60 CNEL from aircraft

MAJOR ISSUES: None

RECOMMENDATION: Staff recommends that the Commission find the Specific Plan Amendment <u>CONSISTENT</u> with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, and also find the proposed Development Plan Reviews and Tentative Parcel Map <u>CONSISTENT</u>, subject to the conditions included herein.

PROJECT DESCRIPTION: A proposal to construct a 291,098 square foot industrial building with mezzanines, a 52,008 square foot hotel, and two restaurant buildings totaling 9,000 square feet on 16.84 acres. The applicant also proposes to amend the Perris Valley Commerce Center Specific Plan to change the sites zoning from Commercial (C) to Light Industrial (LI). The applicant also proposes to split 16.84 aces into four separate parcels.

PROJECT LOCATION: The site is located southerly of Ramona Expressway, northerly of Dawes Street, easterly of Perris Boulevard, and westerly of Redlands Avenue, approximately 11,028 feet southeasterly of the southerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

Non-Residential Intensity: Pursuant to the Airport Land Use Compatibility Plan for the March Air Reserve Base/Inland Port Airport, the site is located within Compatibility Zone D, which does not restrict non-residential intensity.

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses prohibited or discouraged in Compatibility Zone D.

<u>Noise:</u> The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site as being outside the 60 CNEL range from aircraft noise. Therefore, no special measures are required to mitigate aircraft-generated noise.

<u>Part 77</u>: The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level. At a distance of approximately 11,028 feet from the runway to the site, Federal Aviation Administration (FAA) review would be required for any structures with top of roof elevation exceeding 1,598 feet AMSL. The site's finished floor elevation is 1,455 feet AMSL and the proposed building height is 55 feet, for a top point elevation of 1,510 feet AMSL. Therefore, review by the FAA Obstruction Evaluation Service (FAA OES) was not required.

<u>Open Area:</u> None of the Compatibility Zones for the March Air Reserve Base/Inland Port ALUCP require open area specifically.

<u>Hazards to Flight:</u> Land use practices that attract or sustain hazardous wildlife populations on or near airports significantly increase the potential of Bird Aircraft Strike Hazards (BASH). The FAA strongly recommends that storm water management systems located within 5,000 or 10,000 feet of the Airport Operations Area, depending on the type of aircraft, be designed and operated so as not to create above-ground standing water. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. All vegetation in and around detention basins that provide food or cover for hazardous wildlife should be eliminated. (FAA Advisory Circular 5200-33C). The project is located 11,028 feet from the runway, and therefore would not be subject to the above requirement.

<u>Specific Plan:</u> The applicant also proposes to amend the Perris Valley Commerce Center Specific Plan to change the sites zoning from Commercial (C) to Light Industrial (LI) on 12.6 acres. The proposed amendments would be as, or more, consistent with the Compatibility Plan as the underlying compatibility zone does not restrict non-residential intensity.

CONDITIONS:

- 1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- 2. The following uses/activities are not included in the proposed project and shall be prohibited at this site:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight or circling climb following takeoff or toward an aircraft engaged in a straight or circling final approach toward a landing at an airport, other than a DoD or FAA-approved navigational signal light or visual approach slope indicator.

- (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight or circling climb following takeoff or towards an aircraft engaged in a straight or circling final approach towards a landing at an airport.
- (c) Any use which would generate smoke or water vapor, or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, wastewater management facilities, artificial marshes, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
- (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- (e) Hazards to flight
- 3. The attached notice shall be provided to all prospective purchasers of the property and tenants of the building, and shall be recorded as a deed notice.
- 4. Any proposed detention basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm, and remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the detention basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at <u>RCALUC.ORG</u> which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign, in a form similar to that attached hereto, shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.

5. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.

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6. The project has been evaluated to construct a 291,098 square foot industrial building with mezzanines on 12.55 acres, a 52,008 square foot hotel on 2.29 acres, a restaurant building totaling 5,000 square on 0.94 acres, and a restaurant building totaling 4,000 square feet on 1.06 acres, any change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas will require an amended review to evaluate consistency with the ALUCP compatibility criteria, at the discretion of the ALUC Director.

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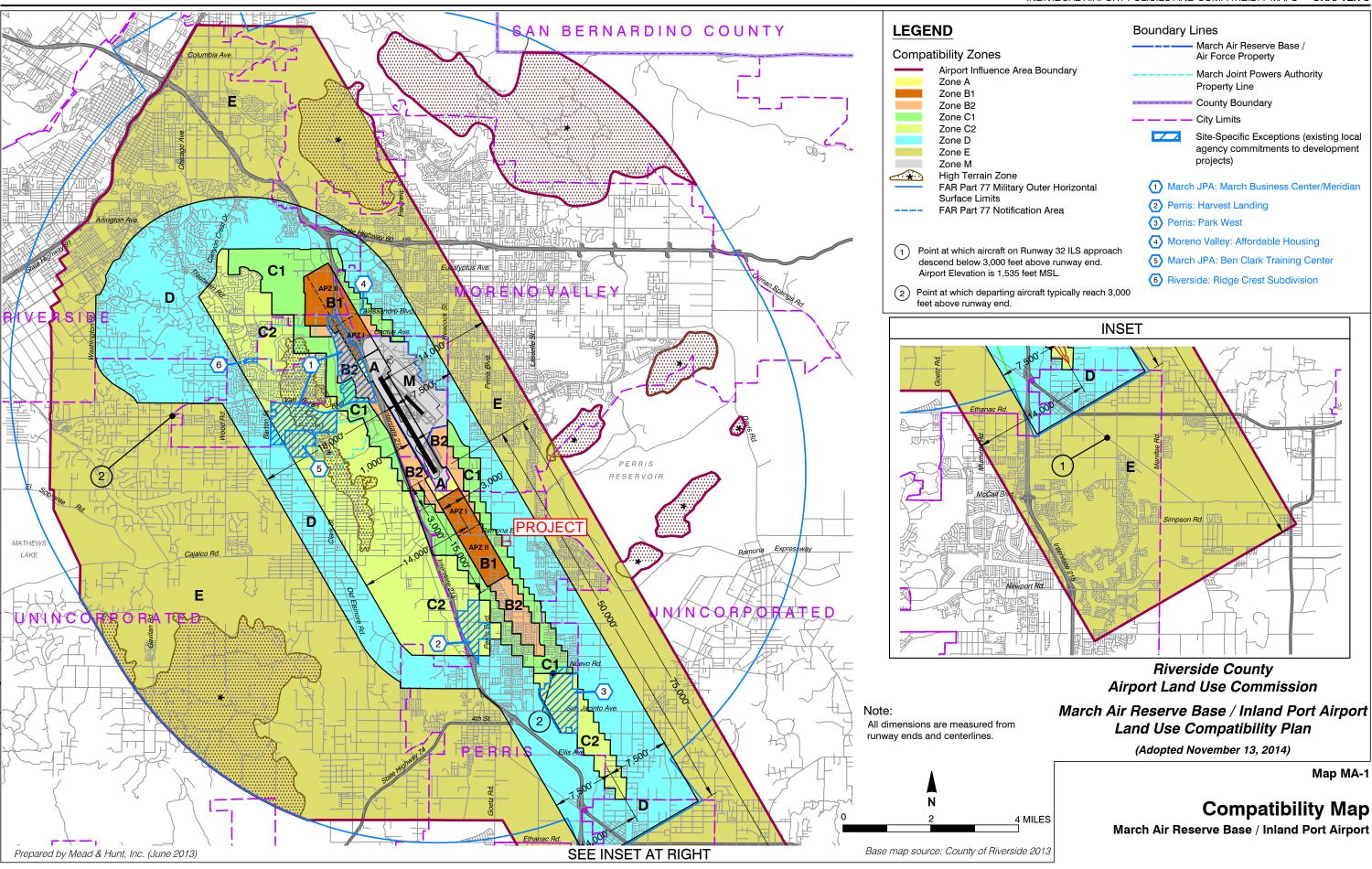
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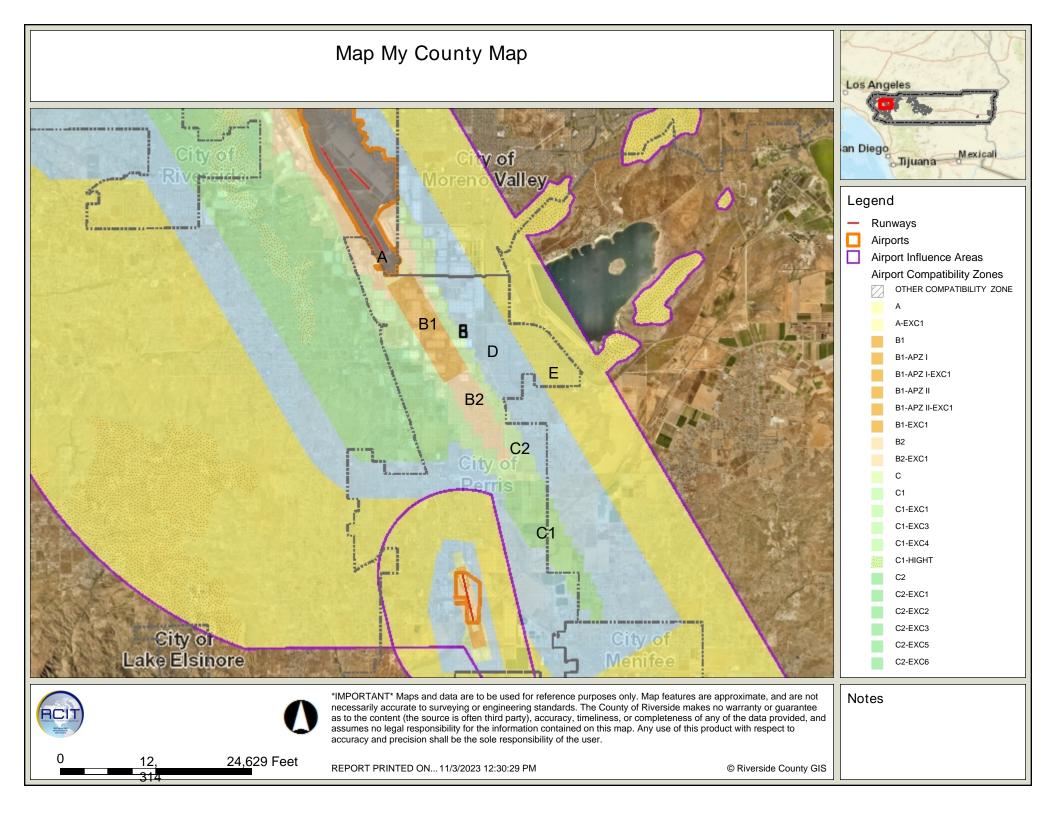


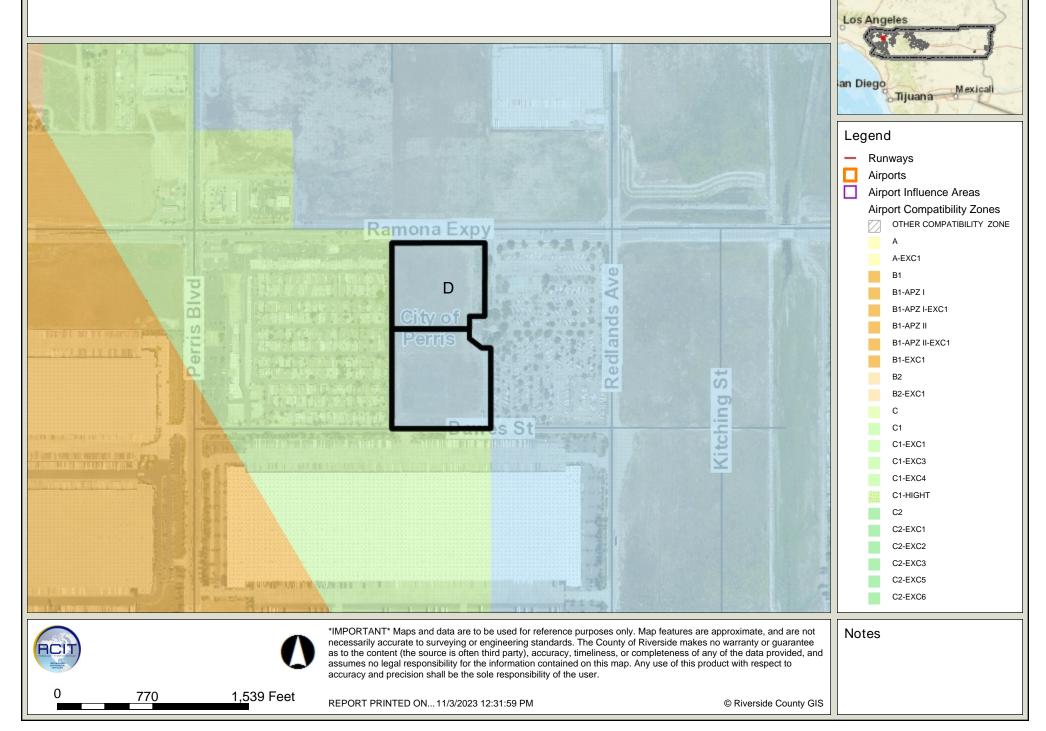
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Name:	Phone:			

Map MA-1











Legend

County Centerline Names

- County Centerlines
- **Blueline Streams**
- City Areas World Street Map





1,539 Feet

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3, 6,157 Feet

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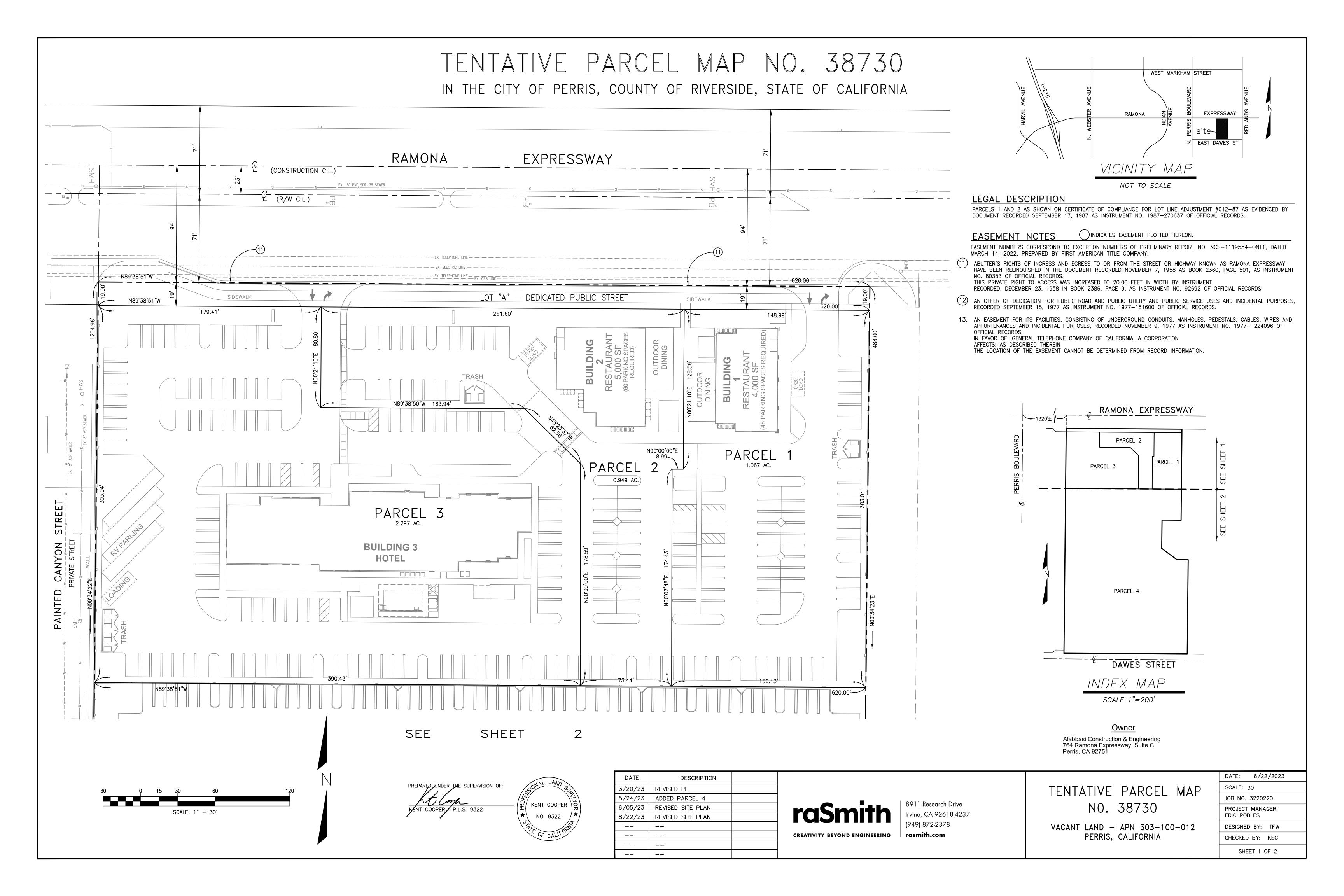
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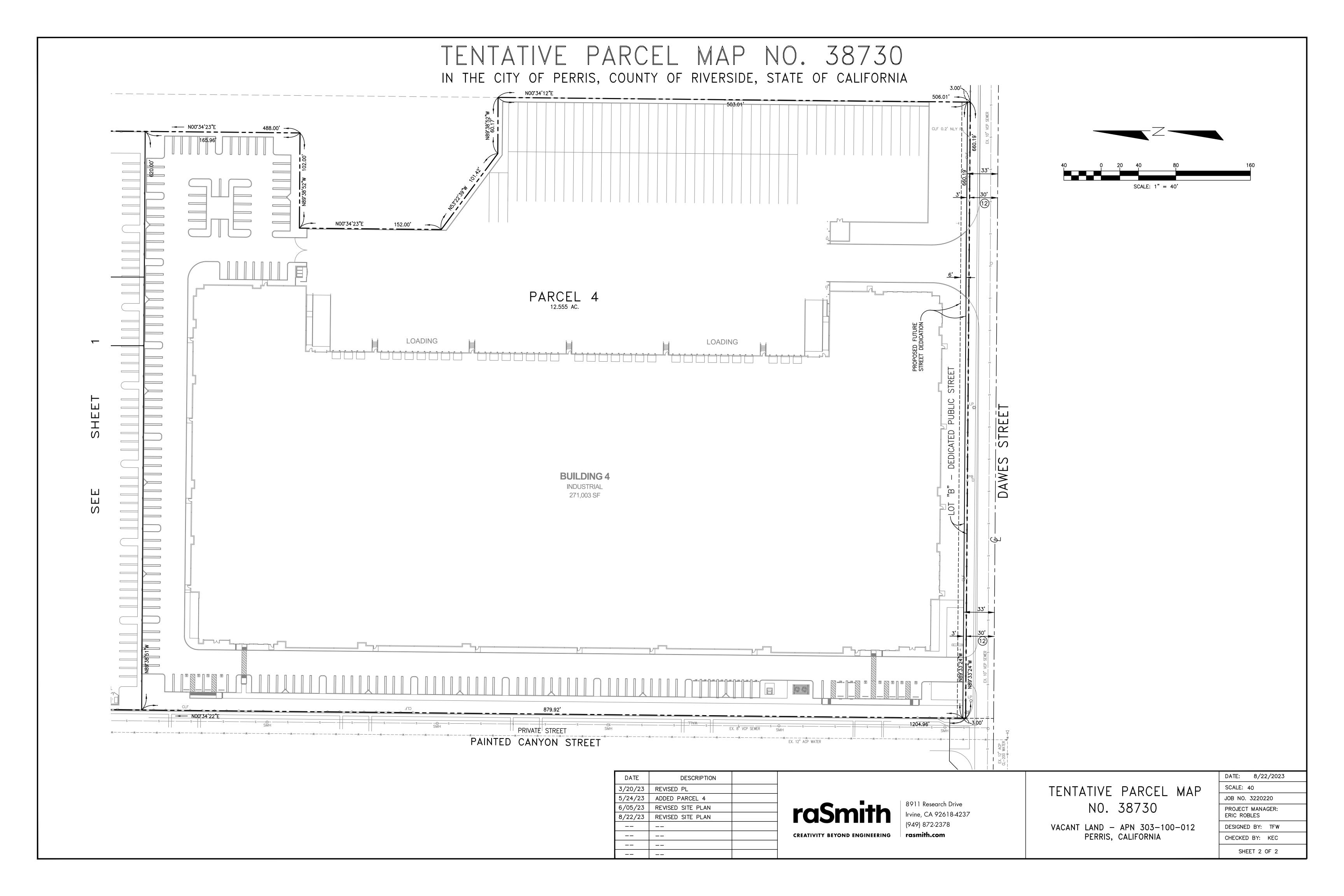
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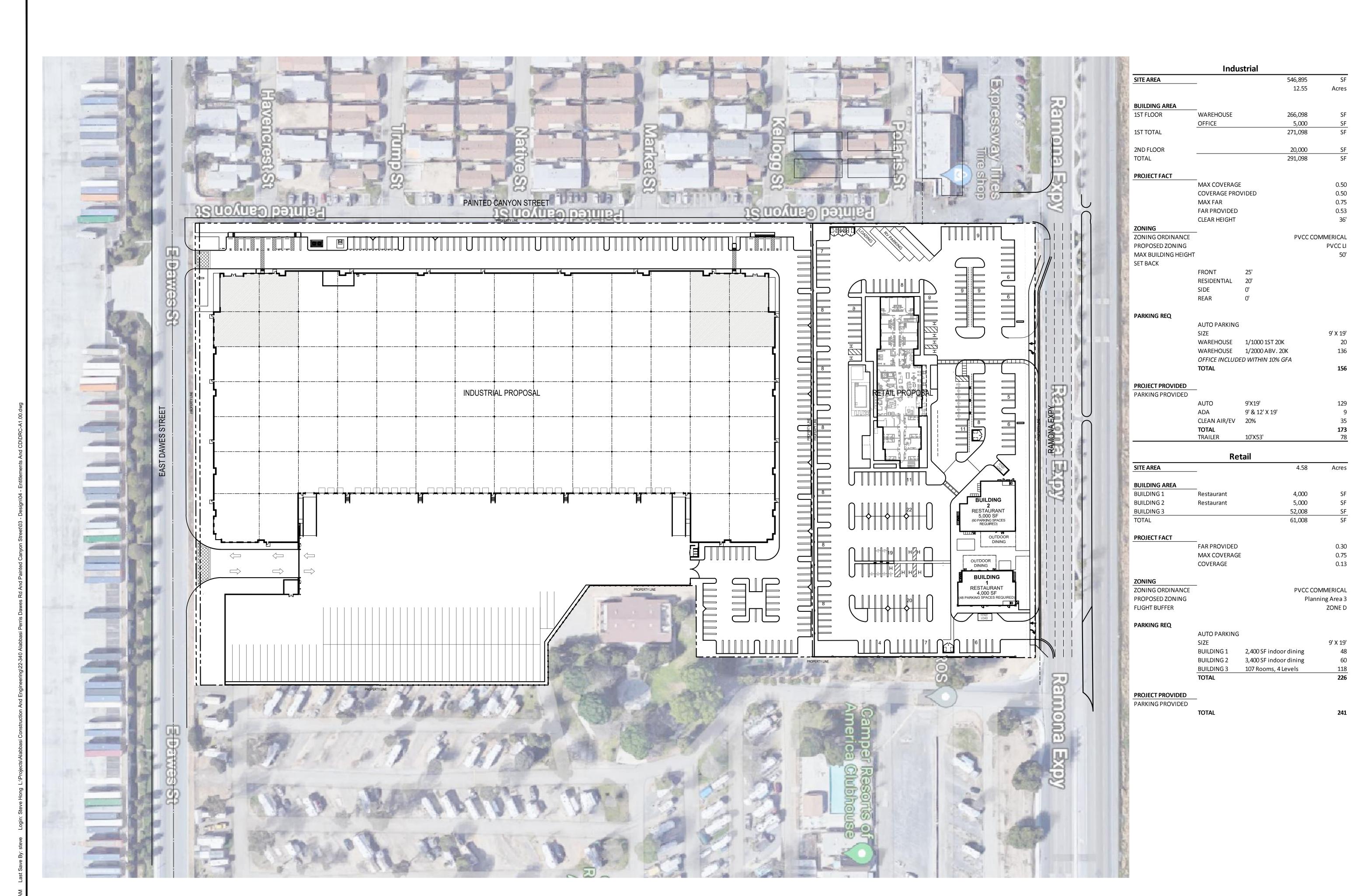
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STEVE K HONG ARCHITECT 4590 MACARTHUR BLVD. SUITE 500 IRVINE CALIFORNIA 92660 PROJECT MANAGER: STEVE HONG 714 - 822 - 1171, STEVE@SKHARCHITECT.COM

Acres

SF

SF

0.50

0.50

0.75

0.53

PVCC LI

9' X 19'

136

156

129

173

Acres

SF

0.30

0.75

0.13

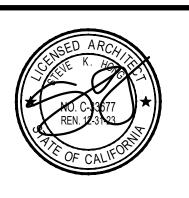
ZONE D

9' X 19'

118

226

50'



CONSULTANTS

CIVIL ENGINEER 8911 RESEARCH DRIVE IRVINE CA 92618

949-242-8044 ERIC.ROBLES@RASMITH.COM ATTN: ERIC ROBLES LANDSCAPE ARCHITECT HUNTER LANDSCAPE INC.

711 S. FEE ANA ST. PLACENTIA CA 92870 WILLC@HUNTERLANDSCAPE.NET ATTN: WILL COCHRAN

275K SPEC DEVELOPMENT

PERRIS CA 92571



ALABBASI CONSTRUCTION & ENGINEERING 764 RAMONA EXPY SUITE C PERRIS CA 92571

No.	ISSUANCE	DATE
		I

STEVE HONG

CHECKED STEVE HONG

ARCHITECTURAL OVERALL SITE PLAN

DRC-A1.00

TRUE NORTH

NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact ALUC Planner Jackie Vega at (951) 955-0982.

The City of Perris Planning Department should be contacted on non-ALUC issues. For more information, please contact City of Perris Planner Nathan Perez at 951-943-5003.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to javega@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

ZAP1589MA23 – Hinoodeh Holdings, LLC (Representative: Corinne Mostad) – City of Perris Case Nos. PLN22-05380 (Specific Plan Amendment), PLN22-05379 (Tentative Parcel Map), PLN22-00037 (Development Plan Review), PLN22-00038 (Development Plan Review). A proposal to construct a 291,098 square foot industrial building with mezzanines, a 52,008 square foot hotel, and two restaurant buildings totaling 9,000 square feet on 16.84 acres, located southerly of Ramona Expressway, northerly of Dawes Street, easterly of Perris Boulevard, and westerly of Redlands Avenue. The applicant also proposes to amend the Perris Valley Commerce Center Specific Plan to change the sites zoning from Commercial (C) to Light Industrial (LI). The applicant also proposes to split 16.84 aces into four separate parcels (Airport Compatibility Zone D of the March Air Reserve Base/Inland Port Airport Influence Area).



APPLICATION FOR MAJOR LAND USE ACTION REVIEW

	LUC STAFF ONLY	
ALUC Case Number: ZAP1589MA23	Date Submitted: 10	
March	Zone: D	Public Hearing Staff Review
	Applicant	
Applicant Full Name: Hinoodeh Holdings, LLC		
Applicant Address: 764 W Ramona Exp	oy, Suite C Perri	s, CA 92571
Phone: (951) 483-0648	Email:COrini	ne@alabbasi.biz
Representative/ P	roperty Owner Cont	act Information
Representative: Corinne Mostad		Email: corinne@alabbasi.biz
764 W Ramona Expy, Suit	te C Perris, CA 92	Phone: (951) 483-0648
Address:		
Property Owner: Hinoodeh Holdings, LL Address: 764 W Ramona Expy, Suite		Email: marwan@alabbasi.biz Phone: 951-776-9300
Agency	l Jurisdiction Agend	
Name: City of Perris		Phone: (951) 943-5003
Staff Contact: Nathan Perez		Email: nperez@cityofperris.org
Address: 135 N. "D" Street, Perris, C	A 92570 _:	:
Local Agency Case No.: SPA22-05380		
	Project Location	
2	,	
Street Address: Ramona Expy / Re	dlands	Gross Parcel Size.: 17.64
Assessor's Parcel No.: 303-100-012 & -014		
	Solar	
Is the project proposing solar Panels? Yes	No No	If yes, please provide solar glare study.

Data
Site Elevation:(above 1455.11 mean sea level)
Height of Building or structures: 55', 46', 25', 20'
What type of drainage basins are being proposed and the square footage: Underground detention facilities, piped to bioretention basins
Notice

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of existing and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing).

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.3

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1586MA23 – Apollo IV Development (Representative:

NOAA Group Architects)

APPROVING JURISDICTION: City of Moreno Valley

JURISDICTION CASE NO: BFR21-0167 (Building Permit)

LAND USE PLAN: 2014 March Air Reserve Base/Inland Port Airport Land Use

Compatibility Plan

Airport Influence Area: March Air Reserve Base

Land Use Policy: Zone C1

Noise Levels: Below 60 CNEL contour

MAJOR ISSUES: At the time this staff report was written, the Air Force had not completed its review of the project.

RECOMMENDATION: Staff recommends that the Commission <u>CONTINUE</u> the matter to the February 8, 2024, meeting, pending completion of the Air Force review of the project.

PROJECT DESCRIPTION: A proposal to construct a solar panel system totaling 6,100 square feet on four separate buildings on 3.41 acres.

PROJECT LOCATION: The site is located northerly of Dracaea Avenue, westerly of Edgemont Street, and easterly of Gina Avenue, approximately 12,404 feet easterly of the northerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

<u>Non-Residential Land Use Intensity</u>: Pursuant to the Airport Land Use Compatibility Plan for the March Air Reserve Base/Inland Port Airport, the site is located within Compatibility Zone C1, which limits average intensity to 100 people per acre and 250 people per single acre. The proposed rooftop solar panels will not generate any occupancy.

March Air Reserve Base/United States Air Force Input: Given that the project site is located in Zone C1 easterly of the northerly runway at March Air Reserve Base, the March Air Reserve Base staff was notified of the proposal to add rooftop solar panels and sent a solar glare hazard analysis study for their review. At the time the staff report was prepared, comments from the Airforce were

Staff Report Page 2 of 5

still pending.

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses prohibited or discouraged in Compatibility Zone C1.

<u>Flight Hazard Issues</u>: Structure height, electrical interference, and reflectivity/glare are among the issues that solar panels in the airport influence area must address. The project's 6,100 square foot photovoltaic (PV) panel structures would be located on the rooftop of the apartment buildings within Compatibility Zone C1.

Glint and Glare/Reflectivity

Based on the Federal Aviation Administration's Interim Policy for Review of Solar Energy System Projects on Federally Obligated Airports, no glare potential or low potential for temporary afterimage ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property. However, potential for temporary after-image" ("yellow" level) and potential for permanent eye damage ("red" level) are not acceptable levels of glare on final approach. No glare is permitted at air traffic control towers.

The project proposes 6,100 square feet of solar panels on the existing building rooftop with a fixed tilt of 10 degrees with no rotation, and an orientation of 180 degrees. The applicant has submitted a glare analysis utilizing the web-based Forge Solar, a copy of which is attached hereto. The analysis was based on a 2 mile straight in approach (as per FAA Interim Policy standards) to runways 14 and 32, and also based on the traffic patterns as identified by March Air Reserve Base staff (Runway 12/30 General Aviation, Runway 14/32 General Aviation, Runway 14/32 C-17/KC-135, Runway 14/32 Overhead). The analysis utilized a glide slope approach of 3.0 degrees. No glare would affect the Air Traffic Control Tower.

The analysis concluded that some glare would occur within the Air Force traffic pattern. Evaluation of the Air Force traffic patterns indicates that the panels would result in a low potential for temporary after-image ("green" level glare) or no glare. All times are in standard time.

Runway 14/32 C-17/KC-135 traffic pattern (totaling 12,607 minutes of 'green' level glare):

• Runway 14 Base, totaling 12,607 minutes of "green" level glare, lasting up to 25 minutes a day, from March to May and August to October, from 5:00 a.m. to 7:30 a.m.

Runway 14/32 Overhead Aviation traffic pattern (totaling 22,298 minutes of 'green' level glare):

 Runway 32 Initial, totaling 22,2989 minutes of "green" level glare, lasting up to 30 minutes a day, between September to April, from 5:00 a.m. to 8:30 a.m.

The total of 34,905 minutes of "green" level glare represents less than 13 percent of total day light time.

Electrical and Communication Interference

The applicant has indicated that they do not plan to utilize equipment that would interfere with aircraft communications. The PV panels themselves present little risk of interfering with radar transmission due to their low profiles. In addition, solar panels do not emit electromagnetic waves over distances that could interfere with radar signal transmissions, and any electrical facilities that

do carry concentrated current will be buried beneath the ground and away from any signal transmission. There are no radar transmission or receiving facilities within the site.

<u>Noise:</u> The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site below 60 CNEL range from aircraft noise. The proposed solar panels are a non-noise sensitive use; therefore, no mitigation measures are necessary.

<u>Part 77</u>: The elevation of Runway 14-32 at its northerly terminus is 1,535 feet above mean sea level (AMSL). At a distance of approximately 12,404 feet from the project to the nearest point on the runway, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 1,659 feet AMSL. The site's finished floor elevation is 1,540 feet AMSL and building height is 34 feet, resulting in a top point elevation of 1,574 feet AMSL. Therefore, review by the FAA Obstruction Evaluation Service was not required.

<u>Open Area:</u> None of the Compatibility Zones for the March Air Reserve Base/Inland Port ALUCP require open area specifically.

CONDITIONS:

- 1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- 2. The following uses/activities are not included in the proposed project and shall be prohibited at this site:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight or circling climb following takeoff or toward an aircraft engaged in a straight or circling final approach toward a landing at an airport, other than a DoD or FAA-approved navigational signal light or visual approach slope indicator.
 - (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight or circling climb following takeoff or towards an aircraft engaged in a straight or circling final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, wastewater management facilities, artificial marshes, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
 - (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
 - (e) Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, places of assembly (including but not limited to places of worship and theaters)

- (f) Highly noise-sensitive outdoor nonresidential uses. Examples of noise-sensitive outdoor nonresidential uses that are prohibited include, but are not limited to, major spectator-oriented sports stadiums, amphitheaters, concert halls and drive-in theaters.
- (g) Other Hazards to Flight
- 3. The attached "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property and be recorded as a deed notice.
- 4. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm, and remain totally dry between rainfalls. Vegetation in and around the stormwater basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the stormwater basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the stormwater basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at <u>RCALUC.ORG</u> which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign, in a form similar to that attached hereto, shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin

- 5. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include, but are not limited to, radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.
- 6. All solar arrays installed on the project site shall consist of a 6,100 square foot rooftop solar panel system on a four separate buildings, a fixed tilt of 10 degrees and orientation of 180 degrees. Solar panels shall be limited to a total of 6,100 square feet, and the locations and coordinates shall be as specified in the glare study. Any deviation from these specifications (other than reduction in square footage of panels), including change in tilt or orientation, shall require a new solar glare analysis to ensure that the amended project does not result in any glare impacting the air traffic control tower or creation of any "yellow" or "red" level glare in the flight paths, and shall require review by the Airport Land Use Commission.
- 7. In the event that any glint, glare, or flash affecting the safety of air navigation occurs as a

result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such glint, glare, or flash. An "event" includes any situation that results in an accident, incident, "near-miss," or specific safety complaint regarding an in-flight experience to the airport operator or to federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the incidence. Suggested measures may include, but are not limited to, changing the orientation and/or tilt of the source, covering the source at the time of day when events of glare occur, or wholly removing the source to diminish or eliminate the source of the glint, glare, or flash. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.

- 8. In the event that any electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such interference. An "event" includes any situation that results in an accident, incident, "nearmiss," report by airport personnel, or specific safety complaint to the airport operator or to federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the event. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.
- 9. This project has been evaluated as consisting of a 6,100 square foot rooftop solar panel system on a four separate buildings. Any increase in building area, change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas will require an amended review to evaluate consistency with the ALUCP compatibility criteria, at the discretion of the ALUC Director.

X:\AIRPORT CASE FILES\March\ZAP1586MA23\ZAP1586MA23sr.doc

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY. THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

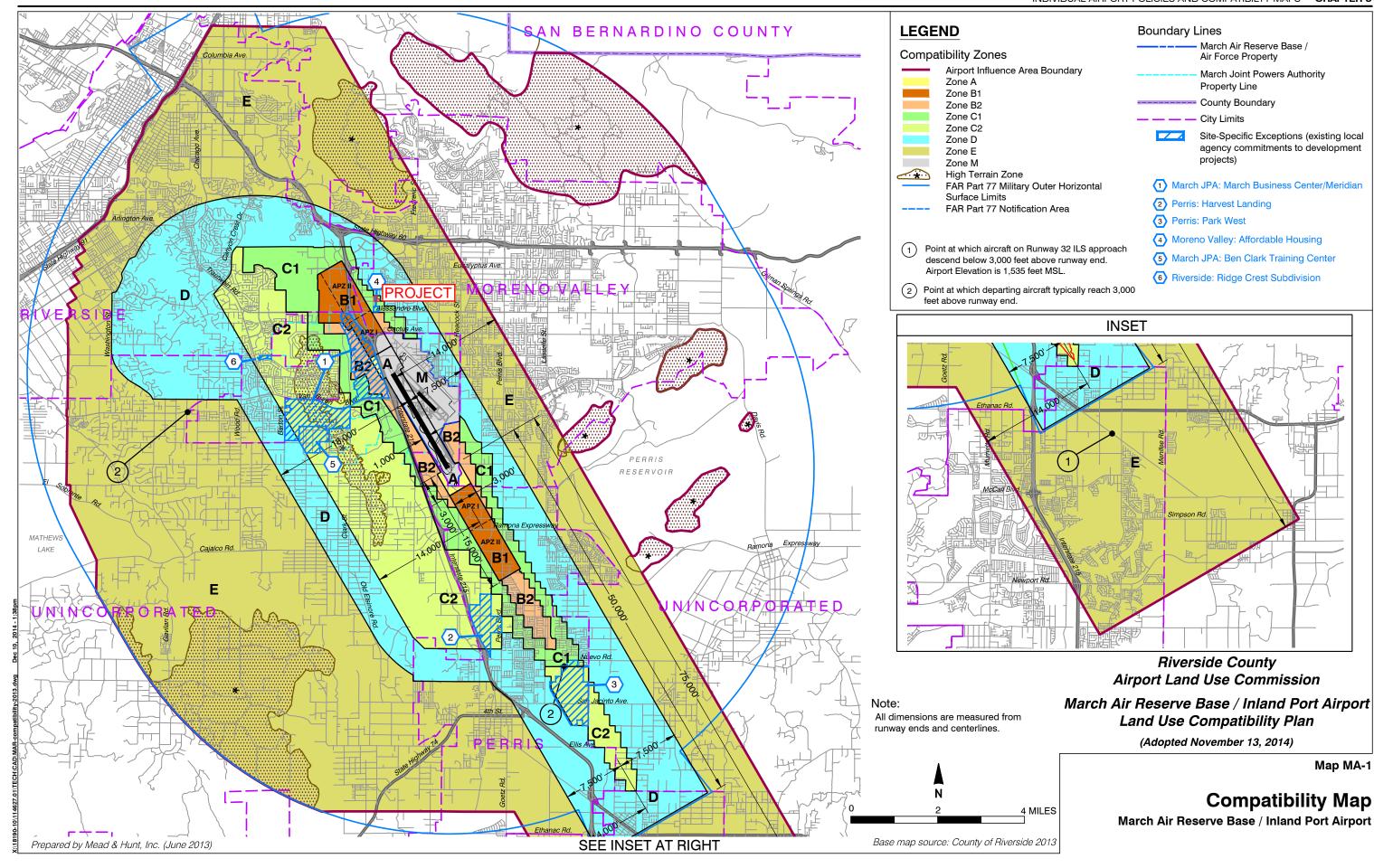
PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

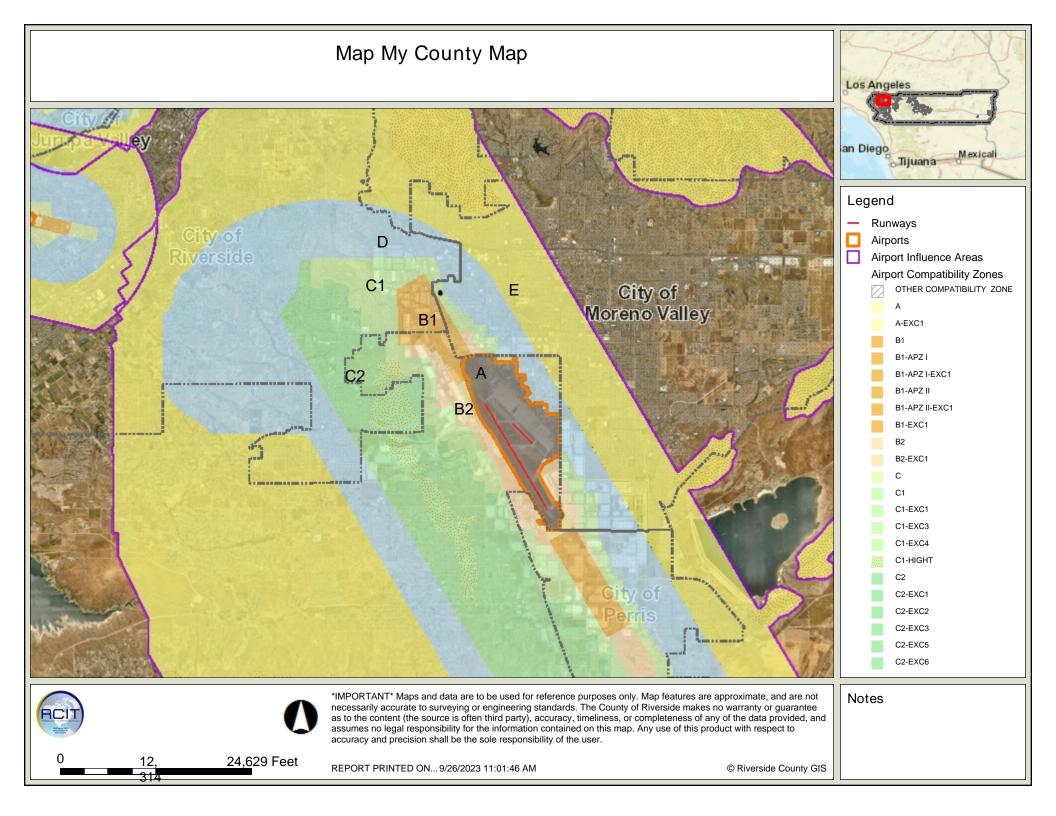


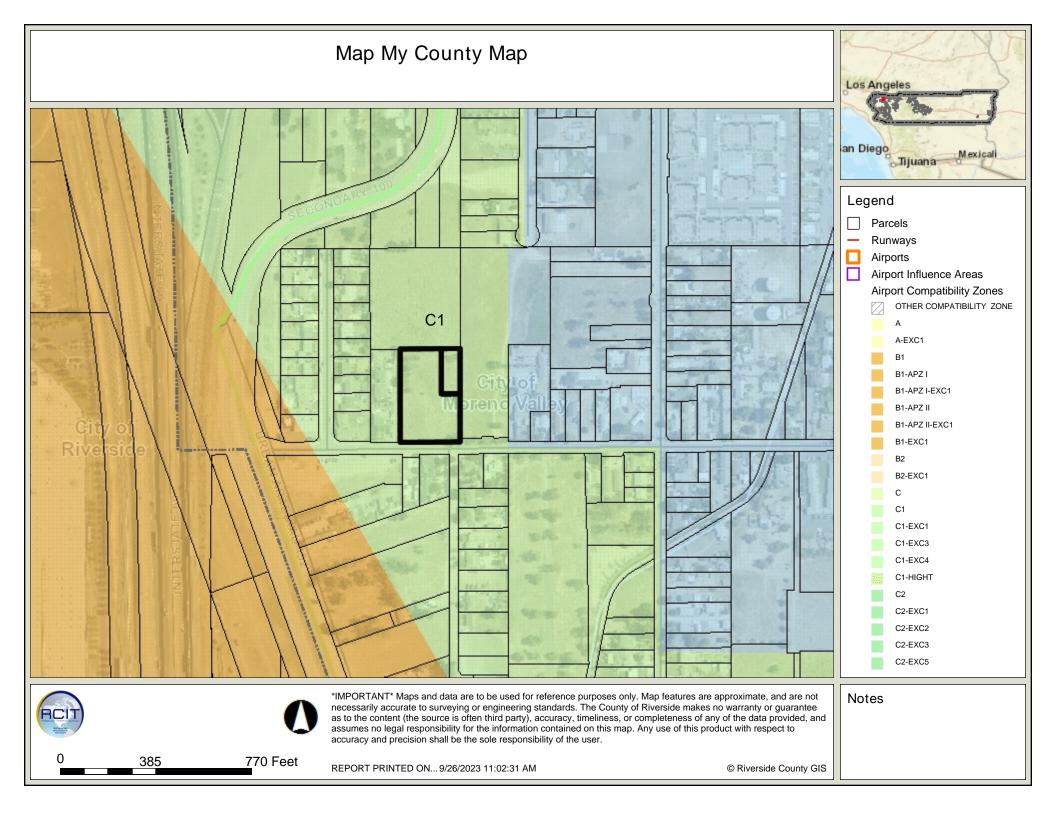
IF THIS DASIN IS OVERGROWN, PELASE CONTAC	VERGROWN, PLEASE CC	ONTAC
---	---------------------	-------

Name:	Phone:	

Map MA-1











Legend

- Parcels
- County Centerline Names
- County Centerlines
- Blueline Streams
- City Areas
- World Street Map

IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

Notes

385 770 Feet





Legend

County Centerline Names

- **County Centerlines**
- **Blueline Streams**
- City Areas World Street Map





1,539 Feet

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Notes

770





Legend

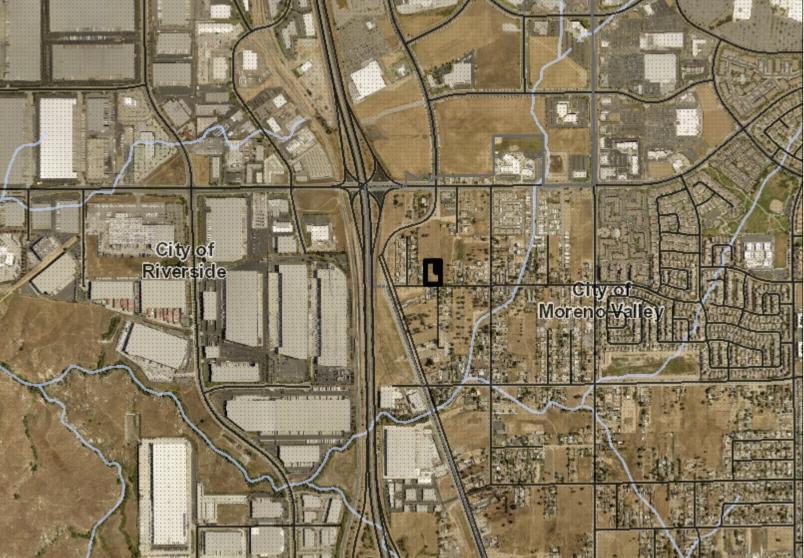
- Parcels
- County Centerline Names
- County Centerlines
- Blueline Streams
 City Areas
- World Street Map

Notes





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Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
 World Street Map





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1, 3,079 Feet

REPORT PRINTED ON... 9/26/2023 11:04:35 AM

© Riverside County GIS

Notes

DRACAEA AVE

Site Plan
Scale: 1" = 30'-0"

LANCASTER LANE

SITE PLAN NOTES

- 1 FIRE DEPARTMENT ACCESS ONLY
- 2 TYPICAL ADA COMPLIANT SPACES. ADA PARKING SPACES ARE DISTRIBUTED THOUGHOUT SITE
- 3 FIRE DEPARTMENT ACCESS TO REAR OF BUILDING
- 4 24' WIDE FIRE DEPARTMENT ACCESS ROAD
- 5 TRASH ENCLOSURE
- 6 NEW PRIVATE STREET THROUGHOUT SITE, FROM DRACAEA TO LANCASTER LANE
- 7 INGRESS/EGRESS GATES. GATES TO HAVE CARD/KEYPAD ACTIVATION AND AUTOMATIC CLOSERS, PROVIDE KNOX KEY SWITCH ON BOTH SIDES OF GATE
- 8 EVCS ELECTRIC VEHICLE CHARGING STATION
- 9 3'X5' OR 3'X8' TRUNCATED DOMES, PER CIVIL SHEETS -SEE DETAIL 34/A-502
- ALL FIRE LANES SHALL BE MARKED WITH RED CURBS AND STRIPING WITH "FIRE LANE NO PARKING CVC 22500.1" STENCIL OR APPROVED POSTED SIGNS.
- 22500.1" STENCIL OR APPROVED POSTED SIGNS.

 11 6 FEET HIGH VINYL FENCE W/ 3'-0" X 6'-0" GATE
- FIRE RISER ROOM W/ FIRE DEPARTMENT CONNECTION (FDC), POST INDICATOR VALVES (PIV), AND FIRE ALARM CONTROL PANELS (FACP) NOTE: PANEL IN COMMUNITY BUILDING TO BE MONITORING APARTMENT BUILDING & COMMUNITY BUILDING
- HW ROOM, TTB ROOM, AND ELECTRICAL ROOM UTILITIES FOR THE FIRE DEPARTMENT USE
- 14 ROOF ACCESS LOCATIONS. REFER TO ROOF PLANS
- KNOX BOX 3200 SERIES MNT. HT = 6 FT AFF. SHALL CONTAIN KEYS FOR BLDG. ENTRY & ROOF ACCESS

SITE LEGEND

ADA ACCESSIBLE ROUTE FROM PUBLIC STREETS AND THROUGHOUT SITE - MIN. 4' WIDTH. SLOPE TO BE NO GREATER THAN 1:20 (5% SLOPE), AND A CROSS SLOPE OF 1:48 MAX

--*- FENCELINE

EASEMENTS. SEE CIVIL PLANS FOR DETAILS

ADA ACCESS AISLE - MIN. 4' WIDTH, SLOPE TO BE NO GREATER THAN 1:20 (5% SLOPE), AND CROSS SLOPE OF 1:48 MAX.

NOTE: SLOPE GREATER THAN 5% SHALL BE DESIGNED AS A RAMP, PER CBC 1113A.3

F.H. FIRE HYDRANT - SUPER HYDRANT (6x4x2^{1/2}x 2^{1/2}) WET BARREL. SPACING & DISTRIBUTION SHALL BE IN ACCORDANCE W/ APPENDIX C OF THE 2019 CFC AS AMENDED BY MORENO VALLEY MUNICIPAL CODE SECTION 508.1. THE SPACING SHALL NOT EXCEED THOSE SET FORTH IN TABLE C105.1 REGARDLESS OF THE AVERAGE SPACING, F.H. SHALL BE LOCATED SUCH THAT ALL POINTS ON STREETS AND ACCESS ROADS ADJACENT TO A BUILDING ARE WITHIN THE DISTANCES LISTED IN TABLE C105.1, SEE CIVIL FIRE SET FOR REFERENCE.

- SEMI-RECESSED FIRE EXTINGUISHER CABINET UL RATING: 2A-10-BC / CAPACITY 5 LBS.
 MOUNTING HEIGHT: 60" AFF MAX. / 36" AFF MIN.
 MAX. TRAVEL DISTANCE < 75 FEET
- FDC FIRE DEPARTMENT CONNECTION/ POST INDICATOR VALVE SHALL BE WITHIN 40 FEET OF A FIRE HYDRANT

GENERAL NOTES

- 1. MOTORIZED SOUTH DRIVEWAY GATES SHALL BE EQUIPPED WITH KNOX KEY SWITCHES ON THE PUBLIC ACCESSIBLE SIDE OF THE GATES (THE INGRESS SIDE), PER CFC 503.6. VEHICLE SENSOR LOOPS SHALL BE PROVIDED TO OPERATE THE GATES AUTOMATICALLY FROM THE EGRESS DIRECTION. IT SHALL ALSO BE EQUIPPED WITH A SYSTEM THAT AUTOMATICALLY OPENS THE GATES REMOTELY BY SIGNAL PREEMPTION FROM AN APPROACHING EMERGENCY FIRE APPARATUS VEHICLE ON BOTH, THE PRIVATE PROPERTY SIDE, AND THE PUBLIC ACCESSIBLE SIDE OF THE GATES. UPON INSTALLATION OF THE SYSTEM, FUNCTIONAL TESTING SHALL BE WITNESSED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT. (MORENO VALLEY FIRE CODE 503.6.1)
- 2. MOTORIZED NORTH DRIVEWAY GATES SHALL BE EQUIPPED WITH KNOX KEY SWITCHES ON BOTH, THE PRIVATE PROPERTY SIDE, AND THE PUBLIC ACCESSIBLE SIDE OF THE GATES. IT SHALL ALSO BE EQUIPPED WITH A SYSTEM THAT AUTOMATICALLY OPENS THE GATES REMOTELY BY SIGNAL PREEMPTION FROM AN APPROACHING EMERGENCY FIRE APPARATUS VEHICLE ON BOTH, THE PRIVATE PROPERTY SIDE, AND THE PUBLIC ACCESSIBLE SIDE OF THE GATES. UPON INSTALLATION OF THE SYSTEM, FUNCTIONAL TESTING SHALL BE WITNESSED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT. (MORENO VALLEY FIRE CODE 503.6.1)







OLLO IV - DRACAE

DRACAEA AVENUE

Project No: 5096
Project Start Date: 06/28/2021

Drawn: Designer
Checked: Checker

Sheet Name:

SITE PLAN

North: TRUE

Scale: As indicated
Sheet No:

A-1017/1/2022 11:33:24 AM

FORGESOLAR GLARE ANALYSIS

Project: **Apartment rooftop north of KRIV**Site configuration: **Rwy 14-32 Heavy**

Created 03 Oct, 2023
Updated 03 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 100 to 500 kW
(1,000 kW / 8 acre limit)
Site ID 102138.17800

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	3,121	52.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	3,142	52.4	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	3,152	52.5	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	3,192	53.2	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		I Green Glare Annual Yellow Gla	
	min	hr	min	hr		
14 Base	12,607	210.1	0	0.0		
14 Crosswind	0	0.0	0	0.0		
14 Downwind	0	0.0	0	0.0		
14 Final	0	0.0	0	0.0		
14 Upwind	0	0.0	0	0.0		
32 Base	0	0.0	0	0.0		
32 Crosswind	0	0.0	0	0.0		
32 Downwind	0	0.0	0	0.0		
32 Final	0	0.0	0	0.0		
32 Upwind	0	0.0	0	0.0		



Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: PV array 1 - Apt Bldg
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 88.8 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.929310	-117.285150	1543.05	35.00	1578.05
2	33.929310	-117.284880	1540.06	35.00	1575.06
3	33.929070	-117.284880	1540.04	35.00	1575.04
4	33.929070	-117.285150	1543.02	35.00	1578.02

Name: PV array 2 - North Townhouse Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928789	-117.285347	1541.32	34.00	1575.32
2	33.928789	-117.285250	1542.03	34.00	1576.03
3	33.928741	-117.285250	1541.91	34.00	1575.91
4	33.928741	-117.285347	1541.46	34.00	1575.46



Name: PV array 3 - Center Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928560	-117.285350	1538.87	34.00	1572.87
2	33.928560	-117.285250	1540.01	34.00	1574.01
3	33.928510	-117.285250	1539.72	34.00	1573.72
4	33.928510	-117.285350	1538.73	34.00	1572.73

Name: PV array 4 - South Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928380	-117.285350	1537.16	34.00	1571.16
2	33.928380	-117.285250	1538.20	34.00	1572.20
3	33.928330	-117.285250	1538.01	34.00	1572.01
4	33.928330	-117.285350	1536.84	34.00	1570.84

Route Receptors

Name: 14 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.922394	-117.325047	1553.00	1447.00	3000.00
2	33.931244	-117.309014	1540.00	1460.00	3000.00

Name: 14 Crosswind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.821961	-117.228367	1481.00	1519.00	3000.00
2	33.813147	-117.244350	1484.00	1516.00	3000.00



Name: 14 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.819225	-117.262269	1509.00	1491.00	3000.00
2	33.908131	-117.325528	1554.00	1446.00	3000.00

Name: 14 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.925156	-117.291061	1536.00	1464.00	3000.00
2	33.896431	-117.270631	1500.07	0.00	1500.07

Name: 14 Upwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248280	1500.00	0.00	1500.00
2	33.836269	-117.227869	1493.00	1507.00	3000.00



Name: 32 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.813147	-117.244350	1495.00	1505.00	3000.00
2	33.821961	-117.228367	1484.00	1516.00	3000.00

Name: 32 Crosswind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.931244	-117.309014	1568.00	1432.00	3000.00
2	33.922394	-117.325047	1619.00	1381.00	3000.00

Name: 32 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.908130	-117.325520	1669.00	1331.00	3000.00
2	33.819225	-117.262269	1527.00	1473.00	3000.00



Name: 32 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836269	-117.227869	1469.00	1531.00	3000.00
2	33.864994	-117.248281	1487.00	0.00	1487.00

Name: 32 Upwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.896431	-117.270636	1536.00	0.00	1536.00
2	33.925156	-117.291061	1545.00	1455.00	3000.00



Flight Path Receptors

Name: Rwy 12 Description:

Threshold height: 50 ft Direction: 135.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890397	-117.260909	1518.26	50.00	1568.26
Two-mile	33.910841	-117.285567	1541.91	579.78	2121.69

Name: Rwy 14 Description:

Threshold height: 50 ft Direction: 149.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896442	-117.270639	1535.61	50.00	1585.61
Two-mile	33.921225	-117.288600	1524.58	614.46	2139.04



Name: Rwy 30 Description:

Threshold height: 50 ft Direction: 315.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884342	-117.253577	1505.90	50.00	1555.90
Two-mile	33.863898	-117.228921	1469.77	639.56	2109.33

Name: Rwy 32 Description:

Threshold height: 50 ft Direction: 329.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.865021	-117.248266	1486.25	50.00	1536.25
Two-mile	33.840238	-117.230312	1459.72	629.96	2089.68



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891565	-117.251182	1508.84	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	3,121	52.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	3,142	52.4	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	3,152	52.5	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	3,192	53.2	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
14 Base	12,607	210.1	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	



PV: PV array 1 - Apt Bldg low potential for temporary after-image

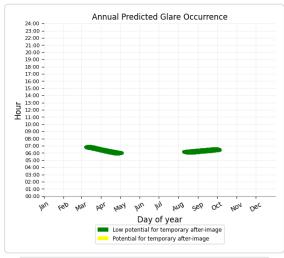
Receptor results ordered by category of glare

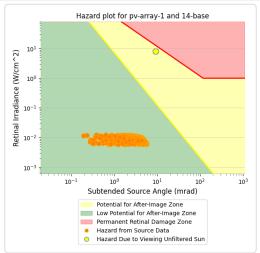
Receptor	Annual Green Glare		Annual Yellow Glare		
ricocpioi	Ailliadi Gi	Aimai dieen diale		Allitual Tellow Glate	
	min	hr	min	hr	
14 Base	3,121	52.0	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

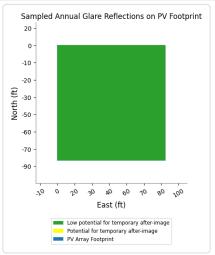


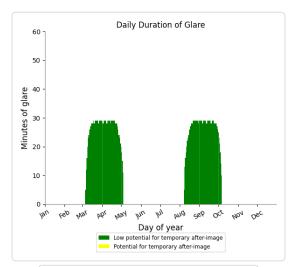
PV array 1 - Apt Bldg and Route: 14 Base

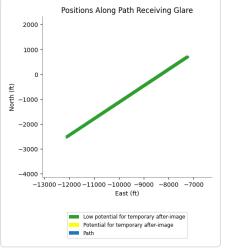
Yellow glare: none Green glare: 3,121 min.











PV array 1 - Apt Bldg and Route: 14 Crosswind

No glare found



PV array 1 - Apt Bldg and Route: 14 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 14 Final

No glare found

PV array 1 - Apt Bldg and Route: 14 Upwind

No glare found

PV array 1 - Apt Bldg and Route: 32 Base

No glare found

PV array 1 - Apt Bldg and Route: 32 Crosswind

No glare found

PV array 1 - Apt Bldg and Route: 32 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 32 Final

No glare found

PV array 1 - Apt Bldg and Route: 32 Upwind

No glare found

PV array 1 - Apt Bldg and FP: Rwy 12

No glare found

PV array 1 - Apt Bldg and FP: Rwy 14

No glare found

PV array 1 - Apt Bldg and FP: Rwy 30

No glare found

PV array 1 - Apt Bldg and FP: Rwy 32

No glare found

PV array 1 - Apt Bldg and 1-ATCT

No glare found



PV: PV array 2 - North Townhouse low potential for temporary after-image

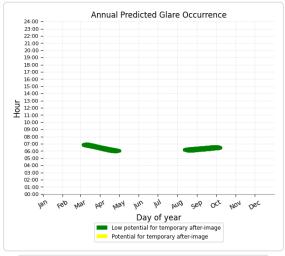
Receptor results ordered by category of glare

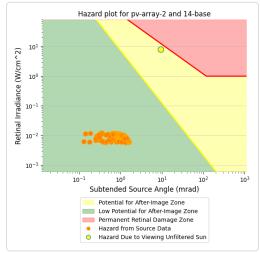
Receptor	Annual Gro	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Base	3,142	52.4	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

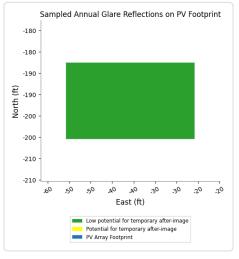


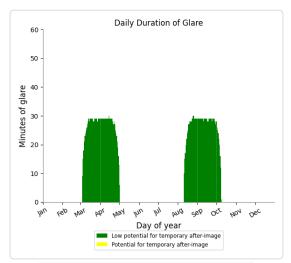
PV array 2 - North Townhouse and Route: 14 Base

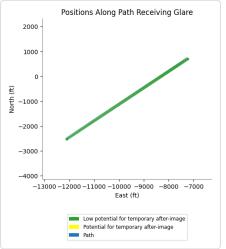
Yellow glare: none Green glare: 3,142 min.











PV array 2 - North Townhouse and Route: 14 Crosswind

No glare found



PV array 2 - North Townhouse and Route: 14 Downwind

No glare found

PV array 2 - North Townhouse and Route: 14 Final

No glare found

PV array 2 - North Townhouse and Route: 14 Upwind

No glare found

PV array 2 - North Townhouse and Route: 32 Base

No glare found

PV array 2 - North Townhouse and Route: 32 Crosswind

No glare found

PV array 2 - North Townhouse and Route: 32 Downwind

No glare found

PV array 2 - North Townhouse and Route: 32 Final

No glare found

PV array 2 - North Townhouse and Route: 32 Upwind

No glare found

PV array 2 - North Townhouse and FP: Rwy 12

No glare found

PV array 2 - North Townhouse and FP: Rwy 14

No glare found

PV array 2 - North Townhouse and FP: Rwy 30

No glare found

PV array 2 - North Townhouse and FP: Rwy 32

No glare found

PV array 2 - North Townhouse and 1-ATCT

No glare found



PV: PV array 3 - Center Townhouse low potential for temporary after-image

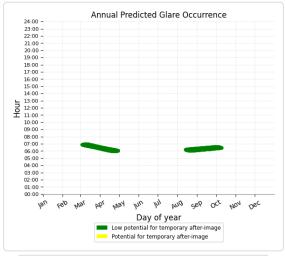
Receptor results ordered by category of glare

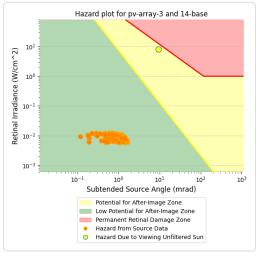
Receptor	Annual Gre	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Base	3,152	52.5	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

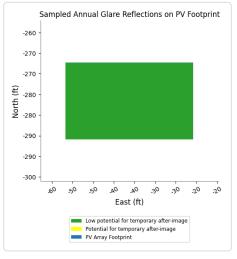


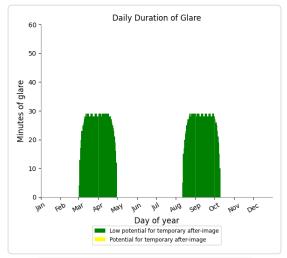
PV array 3 - Center Townhouse and Route: 14 Base

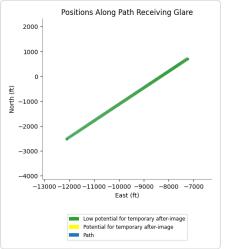
Yellow glare: none Green glare: 3,152 min.











PV array 3 - Center Townhouse and Route: 14 Crosswind

No glare found



PV array 3 - Center Townhouse and Route: 14 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 14 Final

No glare found

PV array 3 - Center Townhouse and Route: 14 Upwind

No glare found

PV array 3 - Center Townhouse and Route: 32 Base

No glare found

PV array 3 - Center Townhouse and Route: 32 Crosswind

No glare found

PV array 3 - Center Townhouse and Route: 32 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 32 Final

No glare found

PV array 3 - Center Townhouse and Route: 32 Upwind

No glare found

PV array 3 - Center Townhouse and FP: Rwy 12

No glare found

PV array 3 - Center Townhouse and FP: Rwy 14

No glare found

PV array 3 - Center Townhouse and FP: Rwy 30

No glare found

PV array 3 - Center Townhouse and FP: Rwy 32

No glare found

PV array 3 - Center Townhouse and 1-ATCT

No glare found



PV: PV array 4 - South Townhouse low potential for temporary after-image

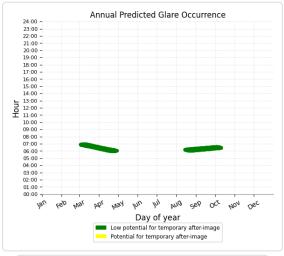
Receptor results ordered by category of glare

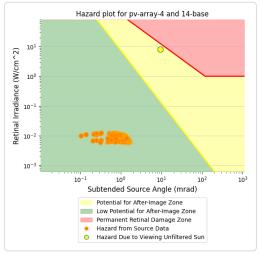
Receptor	Annual Gre	Annual Green Glare		
	min	hr	min	hr
14 Base	3,192	53.2	0	0.0
14 Crosswind	0	0.0	0	0.0
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Upwind	0	0.0	0	0.0
32 Base	0	0.0	0	0.0
32 Crosswind	0	0.0	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

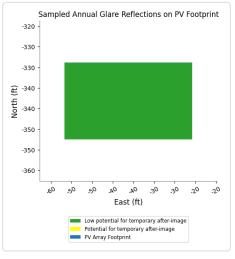


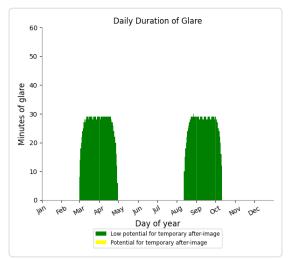
PV array 4 - South Townhouse and Route: 14 Base

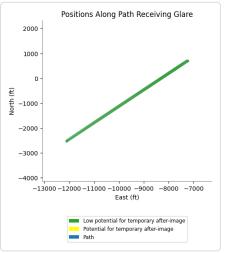
Yellow glare: none Green glare: 3,192 min.











PV array 4 - South Townhouse and Route: 14 Crosswind



PV array 4 - South Townhouse and Route: 14 Downwind

No glare found

PV array 4 - South Townhouse and Route: 14 Final

No glare found

PV array 4 - South Townhouse and Route: 14 Upwind

No glare found

PV array 4 - South Townhouse and Route: 32 Base

No glare found

PV array 4 - South Townhouse and Route: 32 Crosswind

No glare found

PV array 4 - South Townhouse and Route: 32 Downwind

No glare found

PV array 4 - South Townhouse and Route: 32 Final

No glare found

PV array 4 - South Townhouse and Route: 32 Upwind

No glare found

PV array 4 - South Townhouse and FP: Rwy 12

No glare found

PV array 4 - South Townhouse and FP: Rwy 14

No glare found

PV array 4 - South Townhouse and FP: Rwy 30

No glare found

PV array 4 - South Townhouse and FP: Rwy 32

No glare found

PV array 4 - South Townhouse and 1-ATCT



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minuteOcular transmission coefficient: 0.5Pupil diameter: 0.002 meters

Eye focal length: 0.017 metersSun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: Apartment rooftop north of KRIV

Site configuration: Rwy 14-32 GA

Created 03 Oct, 2023
Updated 03 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 100 to 500 kW
(1,000 kW / 8 acre limit)
Site ID 102143.17800

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	0	0.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	0	0.0	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
14 Base	0	0.0	0	0.0
14 Crosswind	0	0.0	0	0.0
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Upwind	0	0.0	0	0.0
32 Base	0	0.0	0	0.0
32 Crosswind	0	0.0	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Upwind	0	0.0	0	0.0



Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: PV array 1 - Apt Bldg
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 88.8 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.929310	-117.285150	1543.05	35.00	1578.05
2	33.929310	-117.284880	1540.06	35.00	1575.06
3	33.929070	-117.284880	1540.04	35.00	1575.04
4	33.929070	-117.285150	1543.02	35.00	1578.02

Name: PV array 2 - North Townhouse Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928789	-117.285347	1541.32	34.00	1575.32
2	33.928789	-117.285250	1542.03	34.00	1576.03
3	33.928741	-117.285250	1541.91	34.00	1575.91
4	33.928741	-117.285347	1541.46	34.00	1575.46



Name: PV array 3 - Center Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928560	-117.285350	1538.87	34.00	1572.87
2	33.928560	-117.285250	1540.01	34.00	1574.01
3	33.928510	-117.285250	1539.72	34.00	1573.72
4	33.928510	-117.285350	1538.73	34.00	1572.73

Name: PV array 4 - South Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928380	-117.285350	1537.16	34.00	1571.16
2	33.928380	-117.285250	1538.20	34.00	1572.20
3	33.928330	-117.285250	1538.01	34.00	1572.01
4	33.928330	-117.285350	1536.84	34.00	1570.84



Route Receptors

Name: 14 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.904833	-117.292903	1553.00	1447.00	3000.00
2	33.908242	-117.286017	1540.00	1460.00	3000.00

Name: 14 Crosswind

Path type: One-way (toward increasing index)



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.848078	-117.243236	1481.00	1519.00	3000.00
2	33.844669	-117.250119	1484.00	1516.00	3000.00



Name: 14 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.846422	-117.258344	1509.00	1491.00	3000.00
2	33.897972	-117.295000	1554.00	1446.00	3000.00

Name: 14 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.906486	-117.277783	1536.00	1464.00	3000.00
2	33.896431	-117.270631	1500.07	0.00	1500.07

Name: 14 Upwind

Path type: One-way (toward increasing index)



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248280	1500.00	0.00	1500.00
2	33.854942	-117.241136	1493.00	1507.00	3000.00



Name: 32 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.844669	-117.250119	1495.00	1505.00	3000.00
2	33.848078	-117.243236	1484.00	1516.00	3000.00

Name: 32 Crosswind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.908242	-117.286017	1568.00	1432.00	3000.00	
2	33.904833	-117.292903	1619.00	1381.00	3000.00	

Name: 32 Downwind

Path type: One-way (toward increasing index)



Vertex	Latitude (°) Longitude (°)		Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.897972	-117.295011	1669.00	1331.00	3000.00	
2	33.846422	-117.258344	1527.00	1473.00	3000.00	



Name: 32 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.854942	-117.241136	1469.00	1531.00	3000.00
2	33.864994	-117.248281	1487.00	0.00	1487.00

Name: 32 Upwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.896431	-117.270636	1536.00	0.00	1536.00	
2	33.906486	-117.277783	1545.00	1455.00	3000.00	



Flight Path Receptors

Name: Rwy 12 Description:

Threshold height: 50 ft Direction: 135.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°) Longitude (°)		Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890397	-117.260909	1518.26	50.00	1568.26
Two-mile	33.910841	-117.285567	1541.91	579.78	2121.69

Name: Rwy 14 Description:

Threshold height: 50 ft Direction: 149.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896442	-117.270639	1535.61	50.00	1585.61
Two-mile	33.921225	-117.288600	1524.58	614.46	2139.04



Name: Rwy 30 Description:

Threshold height: 50 ft Direction: 315.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°) Longitude (°)		Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
Threshold	33.884342	-117.253577	1505.90	50.00	1555.90	
Two-mile	33.863898	-117.228921	1469.77	639.56	2109.33	

Name: Rwy 32 Description:

Threshold height: 50 ft Direction: 329.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
Threshold	33.865021	-117.248266	1486.25	50.00	1536.25	
Two-mile	33.840238	-117.230312	1459.72	629.96	2089.68	



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891565	-117.251182	1508.84	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	٥	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	0	0.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	0	0.0	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Ye	llow Glare
	min	hr	min	hr
14 Base	0	0.0	0	0.0
14 Crosswind	0	0.0	0	0.0
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Upwind	0	0.0	0	0.0
32 Base	0	0.0	0	0.0
32 Crosswind	0	0.0	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



PV: PV array 1 - Apt Bldg no glare found

Receptor results ordered by category of glare

Receptor	Annual Gro	Annual Green Glare		llow Glare
	min	hr	min	hr
14 Base	0	0.0	0	0.0
14 Crosswind	0	0.0	0	0.0
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Upwind	0	0.0	0	0.0
32 Base	0	0.0	0	0.0
32 Crosswind	0	0.0	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV array 1 - Apt Bldg and Route: 14 Base

No glare found

PV array 1 - Apt Bldg and Route: 14 Crosswind

No glare found

PV array 1 - Apt Bldg and Route: 14 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 14 Final

No glare found

PV array 1 - Apt Bldg and Route: 14 Upwind

No glare found

PV array 1 - Apt Bldg and Route: 32 Base



PV array 1 - Apt Bldg and Route: 32 Crosswind

No glare found

PV array 1 - Apt Bldg and Route: 32 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 32 Final

No glare found

PV array 1 - Apt Bldg and Route: 32 Upwind

No glare found

PV array 1 - Apt Bldg and FP: Rwy 12

No glare found

PV array 1 - Apt Bldg and FP: Rwy 14

No glare found

PV array 1 - Apt Bldg and FP: Rwy 30

No glare found

PV array 1 - Apt Bldg and FP: Rwy 32

No glare found

PV array 1 - Apt Bldg and 1-ATCT

PV: PV array 2 - North Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Gr	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Base	0	0.0	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV array 2 - North Townhouse and Route: 14 Base

No glare found

PV array 2 - North Townhouse and Route: 14 Crosswind

No glare found

PV array 2 - North Townhouse and Route: 14 Downwind

No glare found

PV array 2 - North Townhouse and Route: 14 Final

No glare found

PV array 2 - North Townhouse and Route: 14 Upwind

No glare found

PV array 2 - North Townhouse and Route: 32 Base

No glare found

PV array 2 - North Townhouse and Route: 32 Crosswind



PV array 2 - North Townhouse and Route: 32 Downwind

No glare found

PV array 2 - North Townhouse and Route: 32 Final

No glare found

PV array 2 - North Townhouse and Route: 32 Upwind

No glare found

PV array 2 - North Townhouse and FP: Rwy 12

No glare found

PV array 2 - North Townhouse and FP: Rwy 14

No glare found

PV array 2 - North Townhouse and FP: Rwy 30

No glare found

PV array 2 - North Townhouse and FP: Rwy 32

No glare found

PV array 2 - North Townhouse and 1-ATCT

PV: PV array 3 - Center Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Gr	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Base	0	0.0	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV array 3 - Center Townhouse and Route: 14 Base

No glare found

PV array 3 - Center Townhouse and Route: 14 Crosswind

No glare found

PV array 3 - Center Townhouse and Route: 14 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 14 Final

No glare found

PV array 3 - Center Townhouse and Route: 14 Upwind

No glare found

PV array 3 - Center Townhouse and Route: 32 Base

No glare found

PV array 3 - Center Townhouse and Route: 32 Crosswind



PV array 3 - Center Townhouse and Route: 32 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 32 Final

No glare found

PV array 3 - Center Townhouse and Route: 32 Upwind

No glare found

PV array 3 - Center Townhouse and FP: Rwy 12

No glare found

PV array 3 - Center Townhouse and FP: Rwy 14

No glare found

PV array 3 - Center Townhouse and FP: Rwy 30

No glare found

PV array 3 - Center Townhouse and FP: Rwy 32

No glare found

PV array 3 - Center Townhouse and 1-ATCT

PV: PV array 4 - South Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Gr	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Base	0	0.0	0	0.0	
14 Crosswind	0	0.0	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
14 Upwind	0	0.0	0	0.0	
32 Base	0	0.0	0	0.0	
32 Crosswind	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV array 4 - South Townhouse and Route: 14 Base

No glare found

PV array 4 - South Townhouse and Route: 14 Crosswind

No glare found

PV array 4 - South Townhouse and Route: 14 Downwind

No glare found

PV array 4 - South Townhouse and Route: 14 Final

No glare found

PV array 4 - South Townhouse and Route: 14 Upwind

No glare found

PV array 4 - South Townhouse and Route: 32 Base

No glare found

PV array 4 - South Townhouse and Route: 32 Crosswind



PV array 4 - South Townhouse and Route: 32 Downwind

No glare found

PV array 4 - South Townhouse and Route: 32 Final

No glare found

PV array 4 - South Townhouse and Route: 32 Upwind

No glare found

PV array 4 - South Townhouse and FP: Rwy 12

No glare found

PV array 4 - South Townhouse and FP: Rwy 14

No glare found

PV array 4 - South Townhouse and FP: Rwy 30

No glare found

PV array 4 - South Townhouse and FP: Rwy 32

No glare found

PV array 4 - South Townhouse and 1-ATCT

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: Apartment rooftop north of KRIV Site configuration: Rwy 14-32 Overhead

Created 03 Oct, 2023
Updated 03 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 100 to 500 kW
(1,000 kW / 8 acre limit)
Site ID 102144.17800

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	low Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	5,889	98.2	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	5,355	89.2	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	5,500	91.7	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	5,554	92.6	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Initial	22,298	371.6	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Initial	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0



Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: PV array 1 - Apt Bldg
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 88.8 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.929310	-117.285150	1543.05	35.00	1578.05
2	33.929310	-117.284880	1540.06	35.00	1575.06
3	33.929070	-117.284880	1540.04	35.00	1575.04
4	33.929070	-117.285150	1543.02	35.00	1578.02

Name: PV array 2 - North Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928789	-117.285347	1541.32	34.00	1575.32
2	33.928789	-117.285250	1542.03	34.00	1576.03
3	33.928741	-117.285250	1541.91	34.00	1575.91
4	33.928741	-117.285347	1541.46	34.00	1575.46



Name: PV array 3 - Center Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928560	-117.285350	1538.87	34.00	1572.87
2	33.928560	-117.285250	1540.01	34.00	1574.01
3	33.928510	-117.285250	1539.72	34.00	1573.72
4	33.928510	-117.285350	1538.73	34.00	1572.73

Name: PV array 4 - South Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928380	-117.285350	1537.16	34.00	1571.16
2	33.928380	-117.285250	1538.20	34.00	1572.20
3	33.928330	-117.285250	1538.01	34.00	1572.01
4	33.928330	-117.285350	1536.84	34.00	1570.84

Route Receptors

Name: 14 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°) Longitude (°)		Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.863564	-117.293808	1509.00	1491.00	3000.00	
2	33.908131	-117.325528	1554.00	1446.00	3000.00	

Name: 14 Final

Path type: One-way (toward increasing index)



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.925156	-117.291061	1536.00	1464.00	3000.00
2	33.896431	-117.270631	1500.07	0.00	1500.07



Name: 14 Initial

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.968036	-117.322128	1500.00	2000.00	3500.00	
2	33.880706	-117.259453	1493.00	2007.00	3500.00	

Name: 32 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.863564	-117.293808	1669.00	1831.00	3500.00	
2	33.819225	-117.262269	1527.00	1973.00	3500.00	

Name: 32 Final

Path type: One-way (toward increasing index)



Vertex	Latitude (°) Longitude (°)		Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
1	33.836269	-117.227869	1469.00	2031.00	3500.00	
2	33.864994	-117.248281	1487.00	13.00	1500.00	



Name: 32 Initial

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.793375	-117.196878	1536.00	1964.00	3500.00
2	33.880706	-117.259453	1545.00	1955.00	3500.00

Flight Path Receptors

Name: Rwy 12 Description:

Threshold height: 50 ft Direction: 135.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890397	-117.260909	1518.26	50.00	1568.26
Two-mile	33.910841	-117.285567	1541.91	579.78	2121.69



Name: Rwy 14 Description:

Threshold height: 50 ft Direction: 149.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896442	-117.270639	1535.61	50.00	1585.61
Two-mile	33.921225	-117.288600	1524.58	614.46	2139.04

Name: Rwy 30 Description:

Threshold height: 50 ft Direction: 315.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)	
Threshold	33.884342	-117.253577	1505.90	50.00	1555.90	
Two-mile	33.863898	-117.228921	1469.77	639.56	2109.33	

Name: Rwy 32 Description:

Threshold height: 50 ft Direction: 329.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.865021	-117.248266	1486.25	50.00	1536.25
Two-mile	33.840238	-117.230312	1459.72	629.96	2089.68



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891565	-117.251182	1508.84	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	٥	o	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	5,889	98.2	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	5,355	89.2	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	5,500	91.7	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	5,554	92.6	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
14 Downwind	0	0.0	0	0.0
14 Final	0	0.0	0	0.0
14 Initial	22,298	371.6	0	0.0
32 Downwind	0	0.0	0	0.0
32 Final	0	0.0	0	0.0
32 Initial	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



PV: PV array 1 - Apt Bldg low potential for temporary after-image

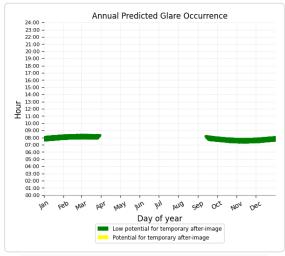
Receptor results ordered by category of glare

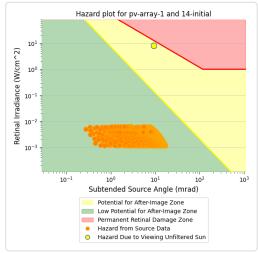
Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
14 Initial	5,889	98.2	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Initial	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

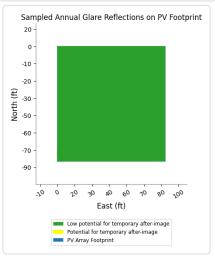


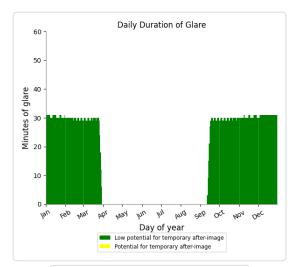
PV array 1 - Apt Bldg and Route: 14 Initial

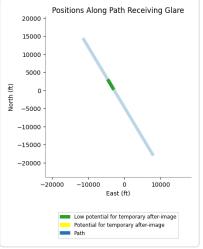
Yellow glare: none Green glare: 5,889 min.











PV array 1 - Apt Bldg and Route: 14 Downwind



PV array 1 - Apt Bldg and Route: 14 Final

No glare found

PV array 1 - Apt Bldg and Route: 32 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 32 Final

No glare found

PV array 1 - Apt Bldg and Route: 32 Initial

No glare found

PV array 1 - Apt Bldg and FP: Rwy 12

No glare found

PV array 1 - Apt Bldg and FP: Rwy 14

No glare found

PV array 1 - Apt Bldg and FP: Rwy 30

No glare found

PV array 1 - Apt Bldg and FP: Rwy 32

No glare found

PV array 1 - Apt Bldg and 1-ATCT

PV: PV array 2 - North Townhouse low potential for temporary after-image

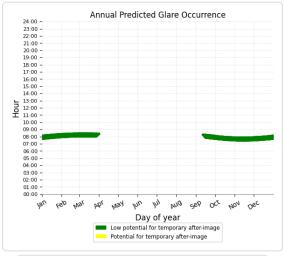
Receptor results ordered by category of glare

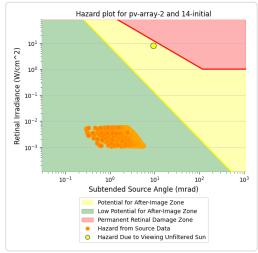
Receptor	Annual Gre	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Initial	5,355	89.2	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Initial	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

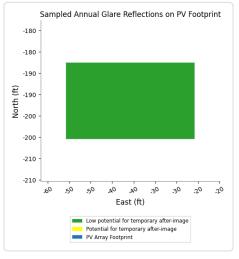


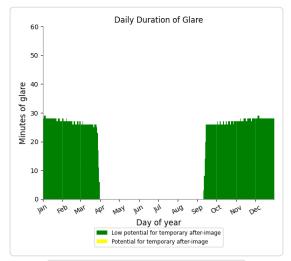
PV array 2 - North Townhouse and Route: 14 Initial

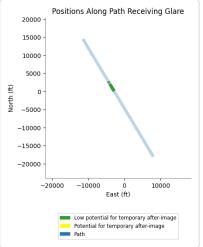
Yellow glare: none Green glare: 5,355 min.











PV array 2 - North Townhouse and Route: 14 Downwind



PV array 2 - North Townhouse and Route: 14 Final

No glare found

PV array 2 - North Townhouse and Route: 32 Downwind

No glare found

PV array 2 - North Townhouse and Route: 32 Final

No glare found

PV array 2 - North Townhouse and Route: 32 Initial

No glare found

PV array 2 - North Townhouse and FP: Rwy 12

No glare found

PV array 2 - North Townhouse and FP: Rwy 14

No glare found

PV array 2 - North Townhouse and FP: Rwy 30

No glare found

PV array 2 - North Townhouse and FP: Rwy 32

No glare found

PV array 2 - North Townhouse and 1-ATCT

PV: PV array 3 - Center Townhouse low potential for temporary after-image

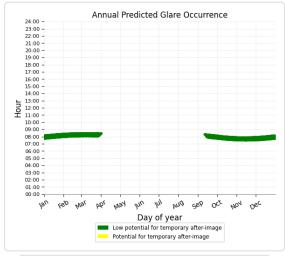
Receptor results ordered by category of glare

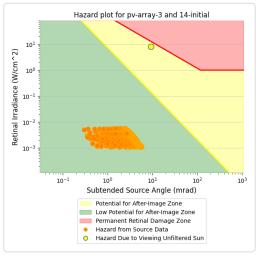
Receptor	Annual Gre	Annual Green Glare		low Glare	
	min	hr	min	hr	
14 Initial	5,500	91.7	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Initial	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

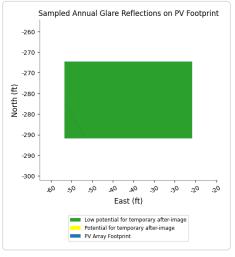


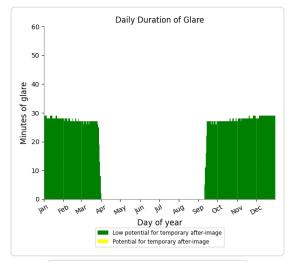
PV array 3 - Center Townhouse and Route: 14 Initial

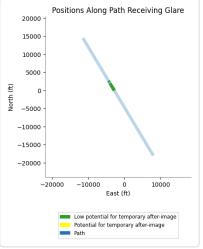
Yellow glare: none Green glare: 5,500 min.











PV array 3 - Center Townhouse and Route: 14 Downwind



PV array 3 - Center Townhouse and Route: 14 Final

No glare found

PV array 3 - Center Townhouse and Route: 32 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 32 Final

No glare found

PV array 3 - Center Townhouse and Route: 32 Initial

No glare found

PV array 3 - Center Townhouse and FP: Rwy 12

No glare found

PV array 3 - Center Townhouse and FP: Rwy 14

No glare found

PV array 3 - Center Townhouse and FP: Rwy 30

No glare found

PV array 3 - Center Townhouse and FP: Rwy 32

No glare found

PV array 3 - Center Townhouse and 1-ATCT

PV: PV array 4 - South Townhouse low potential for temporary after-image

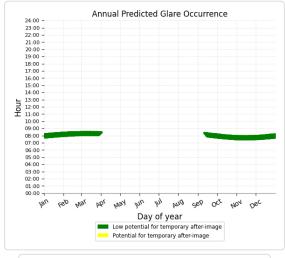
Receptor results ordered by category of glare

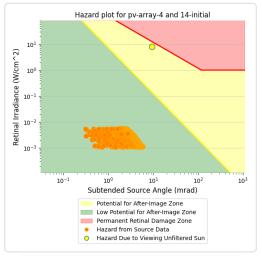
Receptor	Annual Gro	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
14 Initial	5,554	92.6	0	0.0	
14 Downwind	0	0.0	0	0.0	
14 Final	0	0.0	0	0.0	
32 Downwind	0	0.0	0	0.0	
32 Final	0	0.0	0	0.0	
32 Initial	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

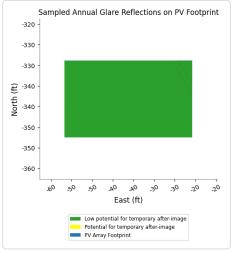


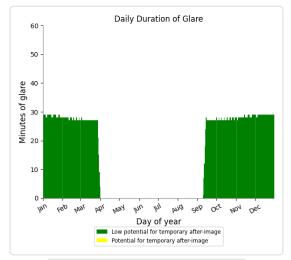
PV array 4 - South Townhouse and Route: 14 Initial

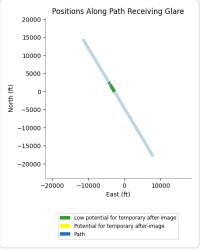
Yellow glare: none Green glare: 5,554 min.











PV array 4 - South Townhouse and Route: 14 Downwind



PV array 4 - South Townhouse and Route: 14 Final

No glare found

PV array 4 - South Townhouse and Route: 32 Downwind

No glare found

PV array 4 - South Townhouse and Route: 32 Final

No glare found

PV array 4 - South Townhouse and Route: 32 Initial

No glare found

PV array 4 - South Townhouse and FP: Rwy 12

No glare found

PV array 4 - South Townhouse and FP: Rwy 14

No glare found

PV array 4 - South Townhouse and FP: Rwy 30

No glare found

PV array 4 - South Townhouse and FP: Rwy 32

No glare found

PV array 4 - South Townhouse and 1-ATCT

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: Apartment rooftop north of KRIV

Site configuration: Rwy 12-30 GA

Created 03 Oct, 2023
Updated 03 Oct, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 100 to 500 kW
(1,000 kW / 8 acre limit)
Site ID 102145.17800

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	0	0.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	0	0.0	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
12 Base	0	0.0	0	0.0
12 Crosswind	0	0.0	0	0.0
12 Downwind	0	0.0	0	0.0
12 Final	0	0.0	0	0.0
12 Upwind	0	0.0	0	0.0
30 Base	0	0.0	0	0.0
30 Crosswind	0	0.0	0	0.0
30 Downwind	0	0.0	0	0.0
30 Final	0	0.0	0	0.0
30 Upwind	0	0.0	0	0.0



Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: PV array 1 - Apt Bldg
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 88.8 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.929310	-117.285150	1543.05	35.00	1578.05
2	33.929310	-117.284880	1540.06	35.00	1575.06
3	33.929070	-117.284880	1540.04	35.00	1575.04
4	33.929070	-117.285150	1543.02	35.00	1578.02

Name: PV array 2 - North Townhouse Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928789	-117.285347	1541.32	34.00	1575.32
2	33.928789	-117.285250	1542.03	34.00	1576.03
3	33.928741	-117.285250	1541.91	34.00	1575.91
4	33.928741	-117.285347	1541.46	34.00	1575.46



Name: PV array 3 - Center Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928560	-117.285350	1538.87	34.00	1572.87
2	33.928560	-117.285250	1540.01	34.00	1574.01
3	33.928510	-117.285250	1539.72	34.00	1573.72
4	33.928510	-117.285350	1538.73	34.00	1572.73

Name: PV array 4 - South Townhouse
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 5.6 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.928380	-117.285350	1537.16	34.00	1571.16
2	33.928380	-117.285250	1538.20	34.00	1572.20
3	33.928330	-117.285250	1538.01	34.00	1572.01
4	33.928330	-117.285350	1536.84	34.00	1570.84



Route Receptors

Name: 12 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910322	-117.264967	1553.00	1247.00	2800.00
2	33.905592	-117.270622	1540.00	1260.00	2800.00

Name: 12 Crosswind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.876081	-117.235119	1481.00	1319.00	2800.00
2	33.880814	-117.229467	1484.00	1316.00	2800.00



Name: 12 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.887897	-117.229483	1509.00	1291.00	2800.00
2	33.910333	-117.256469	1554.00	1246.00	2800.00

Name: 12 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.898508	-117.270608	1536.00	1264.00	2800.00
2	33.890258	-117.260680	1517.07	0.00	1517.07

Name: 12 Upwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.884319	-117.253536	1500.00	0.00	1500.00
2	33.876069	-117.243611	1493.00	1307.00	2800.00



Name: 30 Base

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.880814	-117.229471	1484.00	1316.00	2800.00
2	33.876081	-117.235119	1481.00	1319.00	2800.00

Name: 30 Crosswind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.905592	-117.270622	1538.00	1262.00	2800.00
2	33.910322	-117.264967	1552.00	1248.00	2800.00

Name: 30 Downwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.910333	-117.256469	1554.00	1246.00	2800.00
2	33.887897	-117.229483	1511.00	1289.00	2800.00



Name: 30 Final

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.876069	-117.243611	1491.00	1309.00	2800.00
2	33.884319	-117.253536	1505.00	0.00	1505.00

Name: 30 Upwind

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.890258	-117.260681	1516.00	0.00	1516.00
2	33.898505	-117.270608	1536.00	1264.00	2800.00



Flight Path Receptors

Name: Rwy 12 Description:

Threshold height: 50 ft Direction: 135.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890397	-117.260909	1518.26	50.00	1568.26
Two-mile	33.910841	-117.285567	1541.91	579.78	2121.69

Name: Rwy 14 Description:

Threshold height: 50 ft Direction: 149.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896442	-117.270639	1535.61	50.00	1585.61
Two-mile	33.921225	-117.288600	1524.58	614.46	2139.04



Name: Rwy 30 Description:

Threshold height: 50 ft Direction: 315.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884342	-117.253577	1505.90	50.00	1555.90
Two-mile	33.863898	-117.228921	1469.77	639.56	2109.33

Name: Rwy 32 Description:

Threshold height: 50 ft Direction: 329.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.865021	-117.248266	1486.25	50.00	1536.25
Two-mile	33.840238	-117.230312	1459.72	629.96	2089.68



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891565	-117.251182	1508.84	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1 - Apt Bldg	10.0	180.0	0	0.0	0	0.0	198,600.0
PV array 2 - North Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 3 - Center Townhouse	10.0	180.0	0	0.0	0	0.0	12,530.0
PV array 4 - South Townhouse	10.0	180.0	0	0.0	0	0.0	12,520.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
12 Base	0	0.0	0	0.0
12 Crosswind	0	0.0	0	0.0
12 Downwind	0	0.0	0	0.0
12 Final	0	0.0	0	0.0
12 Upwind	0	0.0	0	0.0
30 Base	0	0.0	0	0.0
30 Crosswind	0	0.0	0	0.0
30 Downwind	0	0.0	0	0.0
30 Final	0	0.0	0	0.0
30 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



PV: PV array 1 - Apt Bldg no glare found

Receptor results ordered by category of glare

Receptor	Annual Gr	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
12 Base	0	0.0	0	0.0	
12 Crosswind	0	0.0	0	0.0	
12 Downwind	0	0.0	0	0.0	
12 Final	0	0.0	0	0.0	
12 Upwind	0	0.0	0	0.0	
30 Base	0	0.0	0	0.0	
30 Crosswind	0	0.0	0	0.0	
30 Downwind	0	0.0	0	0.0	
30 Final	0	0.0	0	0.0	
30 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV array 1 - Apt Bldg and Route: 12 Base

No glare found

PV array 1 - Apt Bldg and Route: 12 Crosswind

No glare found

PV array 1 - Apt Bldg and Route: 12 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 12 Final

No glare found

PV array 1 - Apt Bldg and Route: 12 Upwind

No glare found

PV array 1 - Apt Bldg and Route: 30 Base



PV array 1 - Apt Bldg and Route: 30 Crosswind

No glare found

PV array 1 - Apt Bldg and Route: 30 Downwind

No glare found

PV array 1 - Apt Bldg and Route: 30 Final

No glare found

PV array 1 - Apt Bldg and Route: 30 Upwind

No glare found

PV array 1 - Apt Bldg and FP: Rwy 12

No glare found

PV array 1 - Apt Bldg and FP: Rwy 14

No glare found

PV array 1 - Apt Bldg and FP: Rwy 30

No glare found

PV array 1 - Apt Bldg and FP: Rwy 32

No glare found

PV array 1 - Apt Bldg and 1-ATCT

PV: PV array 2 - North Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
12 Base	0	0.0	0	0.0
12 Crosswind	0	0.0	0	0.0
12 Downwind	0	0.0	0	0.0
12 Final	0	0.0	0	0.0
12 Upwind	0	0.0	0	0.0
30 Base	0	0.0	0	0.0
30 Crosswind	0	0.0	0	0.0
30 Downwind	0	0.0	0	0.0
30 Final	0	0.0	0	0.0
30 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV array 2 - North Townhouse and Route: 12 Base

No glare found

PV array 2 - North Townhouse and Route: 12 Crosswind

No glare found

PV array 2 - North Townhouse and Route: 12 Downwind

No glare found

PV array 2 - North Townhouse and Route: 12 Final

No glare found

PV array 2 - North Townhouse and Route: 12 Upwind

No glare found

PV array 2 - North Townhouse and Route: 30 Base

No glare found

PV array 2 - North Townhouse and Route: 30 Crosswind



PV array 2 - North Townhouse and Route: 30 Downwind

No glare found

PV array 2 - North Townhouse and Route: 30 Final

No glare found

PV array 2 - North Townhouse and Route: 30 Upwind

No glare found

PV array 2 - North Townhouse and FP: Rwy 12

No glare found

PV array 2 - North Townhouse and FP: Rwy 14

No glare found

PV array 2 - North Townhouse and FP: Rwy 30

No glare found

PV array 2 - North Townhouse and FP: Rwy 32

No glare found

PV array 2 - North Townhouse and 1-ATCT

PV: PV array 3 - Center Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
12 Base	0	0.0	0	0.0
12 Crosswind	0	0.0	0	0.0
12 Downwind	0	0.0	0	0.0
12 Final	0	0.0	0	0.0
12 Upwind	0	0.0	0	0.0
30 Base	0	0.0	0	0.0
30 Crosswind	0	0.0	0	0.0
30 Downwind	0	0.0	0	0.0
30 Final	0	0.0	0	0.0
30 Upwind	0	0.0	0	0.0
Rwy 12	0	0.0	0	0.0
Rwy 14	0	0.0	0	0.0
Rwy 30	0	0.0	0	0.0
Rwy 32	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV array 3 - Center Townhouse and Route: 12 Base

No glare found

PV array 3 - Center Townhouse and Route: 12 Crosswind

No glare found

PV array 3 - Center Townhouse and Route: 12 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 12 Final

No glare found

PV array 3 - Center Townhouse and Route: 12 Upwind

No glare found

PV array 3 - Center Townhouse and Route: 30 Base

No glare found

PV array 3 - Center Townhouse and Route: 30 Crosswind



PV array 3 - Center Townhouse and Route: 30 Downwind

No glare found

PV array 3 - Center Townhouse and Route: 30 Final

No glare found

PV array 3 - Center Townhouse and Route: 30 Upwind

No glare found

PV array 3 - Center Townhouse and FP: Rwy 12

No glare found

PV array 3 - Center Townhouse and FP: Rwy 14

No glare found

PV array 3 - Center Townhouse and FP: Rwy 30

No glare found

PV array 3 - Center Townhouse and FP: Rwy 32

No glare found

PV array 3 - Center Townhouse and 1-ATCT

PV: PV array 4 - South Townhouse no glare found

Receptor results ordered by category of glare

Receptor	Annual Gr	Annual Green Glare		low Glare	
	min	hr	min	hr	
12 Base	0	0.0	0	0.0	
12 Crosswind	0	0.0	0	0.0	
12 Downwind	0	0.0	0	0.0	
12 Final	0	0.0	0	0.0	
12 Upwind	0	0.0	0	0.0	
30 Base	0	0.0	0	0.0	
30 Crosswind	0	0.0	0	0.0	
30 Downwind	0	0.0	0	0.0	
30 Final	0	0.0	0	0.0	
30 Upwind	0	0.0	0	0.0	
Rwy 12	0	0.0	0	0.0	
Rwy 14	0	0.0	0	0.0	
Rwy 30	0	0.0	0	0.0	
Rwy 32	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV array 4 - South Townhouse and Route: 12 Base

No glare found

PV array 4 - South Townhouse and Route: 12 Crosswind

No glare found

PV array 4 - South Townhouse and Route: 12 Downwind

No glare found

PV array 4 - South Townhouse and Route: 12 Final

No glare found

PV array 4 - South Townhouse and Route: 12 Upwind

No glare found

PV array 4 - South Townhouse and Route: 30 Base

No glare found

PV array 4 - South Townhouse and Route: 30 Crosswind



PV array 4 - South Townhouse and Route: 30 Downwind

No glare found

PV array 4 - South Townhouse and Route: 30 Final

No glare found

PV array 4 - South Townhouse and Route: 30 Upwind

No glare found

PV array 4 - South Townhouse and FP: Rwy 12

No glare found

PV array 4 - South Townhouse and FP: Rwy 14

No glare found

PV array 4 - South Townhouse and FP: Rwy 30

No glare found

PV array 4 - South Townhouse and FP: Rwy 32

No glare found

PV array 4 - South Townhouse and 1-ATCT

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

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APPLICATION FOR MAJOR LAND USE ACTION REVIEW

	ALUC S	STAFF ONLY			
ALUC Case Numbe		e Submitted: 9/1	9/23 <u> </u>		
AIA: March	<u>Zor</u>	1e: C1	Public Hearing Staff Review		
	Арр	licant			
Applicant Full Name: Apollo	IV Development Group				
Applicant Address: 2663 Pummelo Court, Escondido, CA 92027					
Phone:	760-855-8347	Email: chintupa	itel80@gmeil.com		
	Representative/ Propert	y Owner Conta	ct Information		
Representative: Joe	e Holasek		Email: jch@noaainc.com		
	AA Group Architects		Phone: 619-507-1001		
Address: 4990 N. F	larbor Drive, San Diego, CA 9210	6			
Property Owner: Ap	ollo IV Development Group		Email: chintupatel80@gmeil.com		
2662 Dum	amala Caurt Facandida CA 0202		Phone: 760-855-8347		
Address: 2003 Pull	nmelo Court, Escondido, CA 9202	1			
	Local Juris	sdiction Agency	/		
Agency Name: City	of Moreno Valley		Phone: 951-413-3209		
Staff Contact: Julia	Descoteaux		Email: juliad@moval.org		
Address: 141	77 Frederick Street				
Local Agency Case No.:	ldg Permit Number: BFR21-	0167			
	Proje	ct Location			
Street Address:	21644 Dracaea Avenue, Moreno	Valley, CA 2164	Gross Parcel Size.: 3.41		
Assessor's Parcel N	lo.: 263-132-016-4; 263-132-0)17-5			
		Solar			
Is the project propos	sing solar Panels? Yes	No	If yes, please provide solar glare study. (Only for zone C or higher.)		

Data

Site Elevation:(above Bldg 5; 1540.0, Bldg 6 & 7: 1538.0, Bldg 8: 1536.0 Pad Elevations

Height of Building or structures:

Bldg 5: 34'-0', Bldg 6 & 7 & 8: 33'-0" Top of Parapet Heights

What type of drainage basins are being proposed and the square footage:

2 retention basins (#1: 36'x103', #2: 18'x54')

Notice

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of current and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing)

NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact ALUC Planner Jackie Vega at (951) 955-0982.

The City of Moreno Valley Planning Department should be contacted on non-ALUC issues. For more information, please contact City of Moreno Valley Planner Julia Descoteaux at 951-413-3209.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to javega@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

<u>ZAP1586MA23 – Apollo IV Development (Representative: NOAA Group Architects)</u> – City of Moreno Valley Case No. BFR21-0167 (Building Permit). A proposal to construct a solar panel system totaling 6,100 square feet on four separate buildings on 3.41 acres, located northerly of Dracaea Avenue, westerly of Edgemont Street, and easterly of Gina Avenue (Airport Compatibility Zone C1 of the March Air Reserve Base/Inland Port Airport Influence Area).

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.4

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1591MA23 - Bay & Day, LLC (Representative: T&B

Planning)

APPROVING JURISDICTION: City of Moreno Valley

JURISDICTION CASE NO: PEN23-0076 (Change of Zone), PEN23-074 (Plot Plan),

PEN23-0075 (Tentative Parcel Map)

LAND USE PLAN: 2014 March Air Reserve Base/Inland Port Airport Land Use

Compatibility Plan

Airport Influence Area: March Air Reserve Base

Land Use Policy: Zone B1-APZ-II and C1

Noise Levels: Below 60 CNEL from aircraft

MAJOR ISSUES: At the time this staff report was written, the Air Force had not completed its review of the project.

RECOMMENDATION: Staff recommends that the Commission <u>CONTINUE</u> the matter to the February 8, 2024, meeting, pending completion of the Air Force review of the project.

PROJECT DESCRIPTION: A proposal to construct a 194,775 square foot industrial building with mezzanines on 9.95 acres. The applicant also proposes to change the sites zoning from Business Park (BP) to Light Industrial (LI), and merge four separate parcels into one.

PROJECT LOCATION: The site is located on the southwest corner of Bay Avenue and Day Street, approximately 8,628 feet easterly of the northerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

Non-Residential Average Intensity: Pursuant to the Airport Land Use Compatibility Plan for the March Air Reserve Base/Inland Port Airport, the site is located within Compatibility Zones B1-APZ-II (0.99 acres) and C1 (9.85 acres), which limits average intensity to 50 people per acre in Zone B1-APZ-II and 100 people per acre in C1. The portion of the site that is located in zone B1-APZ-II proposes only parking lot.

Pursuant to Appendix C, Table C-1, of the Riverside County Airport Land Use Compatibility Plan and the Additional Compatibility Policies included in the March Air Reserve Base/Inland Port Airport

Land Use Compatibility Plan, the following rates were used to calculate the occupancy for the proposed project:

- Manufacturing 1 person per 200 square feet, and
- Office 1 person per 200 square feet.

The project proposes to construct a 194,775 square foot industrial building, which includes 188,905 square feet of manufacturing area, 3,000 square feet of office area, and 2,870 square feet of second floor office mezzanines, accommodating a total occupancy of 974 people, resulting in an average intensity of 99 people per acre, which is consistent with Zone C1 average intensity criterion of 100 people per acre. There are no buildings proposed in zone B1-APZ-II.

A second method for determining total occupancy involves multiplying the number of parking spaces provided or required (whichever is greater) by average vehicle occupancy (assumed to be 1.5 persons per vehicle and 1.0 persons per trailer truck space). Based on the number of parking spaces provided 94 standard vehicles and 56 trailer parking, the total occupancy would be estimated at 197 people for an average intensity of 20 people per acre, which is consistent with the Compatibility Zone B1-APZ-II average intensity criterion of 50 people per acre and C1 average intensity criterion of 100 people per acre.

Non-Residential Single-Acre Intensity: Compatibility Zones B1-APZ-II (0.99 acres) and C1(9.85 acres) limits maximum single-acre intensity to 100 people per acre in B1 APZ II and 250 people in C1. There are no risk-reduction design bonuses available, as March Air Reserve Base/Inland Port Airport is primarily utilized by large aircraft weighing more than 12,500 pounds. There are no buildings proposed in Zone B1-APZ-II.

Based on the site plan provided and the occupancies as previously noted, the maximum single-acre area would include 40,560 square feet of manufacturing area, 3,000 square feet of office area, and 2,870 square feet of second floor office mezzanines, resulting in a single acre occupancy of 232 people which is consistent with the Compatibility Zone C1 single acre criterion of 250.

March Air Reserve Base/United States Air Force Input: Given that the project site is located in Zone B1-APZ-II, northeasterly of the northerly runway at March Air Reserve Base, the March Air Reserve Base staff was notified of the proposal to construct an industrial building for their review, and were notified that although the site is located in a split zone B1-APZ-II and C1, there is no buildings proposed in zone B1-APZ-II. At the time the staff report was prepared, comments from the Airforce were still pending.

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses prohibited or discouraged in Compatibility Zone B1-APZ-II or C1 (children's schools, day care centers, hospitals, nursing homes, libraries, hotels/motels, places of assembly, buildings with more than 2 aboveground floors, critical community facilities, highly noise-sensitive outdoor nonresidential uses and hazards to flight).

<u>Noise:</u> The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site below 60 CNEL range from aircraft noise, therefore no mitigation measures are necessary.

<u>Part 77</u>: The elevation of Runway 14-32 at its northerly terminus is 1,535 feet above mean sea level (AMSL). At a distance of approximately 8,628 feet from the project to the nearest point on the

runway, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 1,621 feet AMSL. The site's finished floor elevation is 1,552 feet AMSL and existing building height is 46 feet, resulting in a top point elevation of 1,598 feet AMSL. Therefore, review by the FAA Obstruction Evaluation Service was not required.

<u>Open Area:</u> None of the Compatibility Zones for the March Air Reserve Base/Inland Port ALUCP require open area specifically.

<u>Hazards to Flight:</u> Land use practices that attract or sustain hazardous wildlife populations on or near airports significantly increase the potential of Bird Aircraft Strike Hazards (BASH). The FAA strongly recommends that storm water management systems located within 5,000 or 10,000 feet of the Airport Operations Area, depending on the type of aircraft, be designed and operated so as not to create above-ground standing water. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. All vegetation in and around detention basins that provide food or cover for hazardous wildlife should be eliminated. (FAA Advisory Circular 5200-33C). The nearest portion of the project is located 8,628 feet from the runway, and therefore would be subject to the above requirement.

Although the nearest portion of the proposed project is located within 10,000 feet of the runway (approximately 8,628 feet), the project utilizes underground basins which will not contain surface water or attract wildlife and, therefore, would not constitute a hazard to flight.

<u>Change of Zone:</u> The applicant also proposes to change the sites zoning from Business Park (BP) to Light Industrial (LI). The proposed amendments would be consistent with the Compatibility Plan as long as the underlying development's intensity is consistent with the compatibility criteria.

CONDITIONS:

- 1. Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- 2. The following uses/activities are not included in the proposed project and shall be prohibited at this site:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight or circling climb following takeoff or toward an aircraft engaged in a straight or circling final approach toward a landing at an airport, other than a DoD or FAA-approved navigational signal light or visual approach slope indicator.
 - (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight or circling climb following takeoff or towards an aircraft engaged in a straight or circling final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations,

wastewater management facilities, artificial marshes, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)

- (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- (e) Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, hotels/motels, places of assembly (including, but not limited to places of worship and theaters), buildings with more than 2 aboveground habitable floors, hazardous materials and critical community infrastructure facilities.
- (f) Highly noise-sensitive outdoor nonresidential uses. Examples of noise-sensitive outdoor nonresidential uses that are prohibited include, but are not limited to, major spectator-oriented sports stadiums, amphitheaters, concert halls and drive-in theaters.
- (g) Other Hazards to Flight
- 3. The proposed underground basin shall convey an avigation easement to the March Inland Port Airport Authority or its successor in interest, or provide evidence that such easement has been previously conveyed. The Airport Authority may waive this requirement in the event that the Authority determines that pre-existing avigation easements dedicated to the United States of America are sufficient to address its needs. Contact the March Joint Powers Authority at (951) 656-7000 for additional information.
- 4. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm, and remain totally dry between rainfalls. Vegetation in and around the stormwater basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the stormwater basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the stormwater basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at RCALUC.ORG which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign, in a form similar to that attached hereto, shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin

Staff Report Page 5 of 5

- 5. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include, but are not limited to, radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.
- 6. The project does not propose rooftop solar panels at this time. However, if the project were to propose solar rooftop panels in the future, the applicant/developer shall prepare a solar glare study that analyzes glare impacts, and this study shall be reviewed by the Airport Land Use Commission and March Air Reserve Base.
- 7. The project has been evaluated to construct a 194,775 square foot industrial building with mezzanines. Any increase in building area, change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas will require an amended review to evaluate consistency with the ALUCP compatibility criteria, at the discretion of the ALUC Director.

X:\AIRPORT CASE FILES\March\ZAP1591MA23\ZAP1591MA23sr.doc

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY. THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

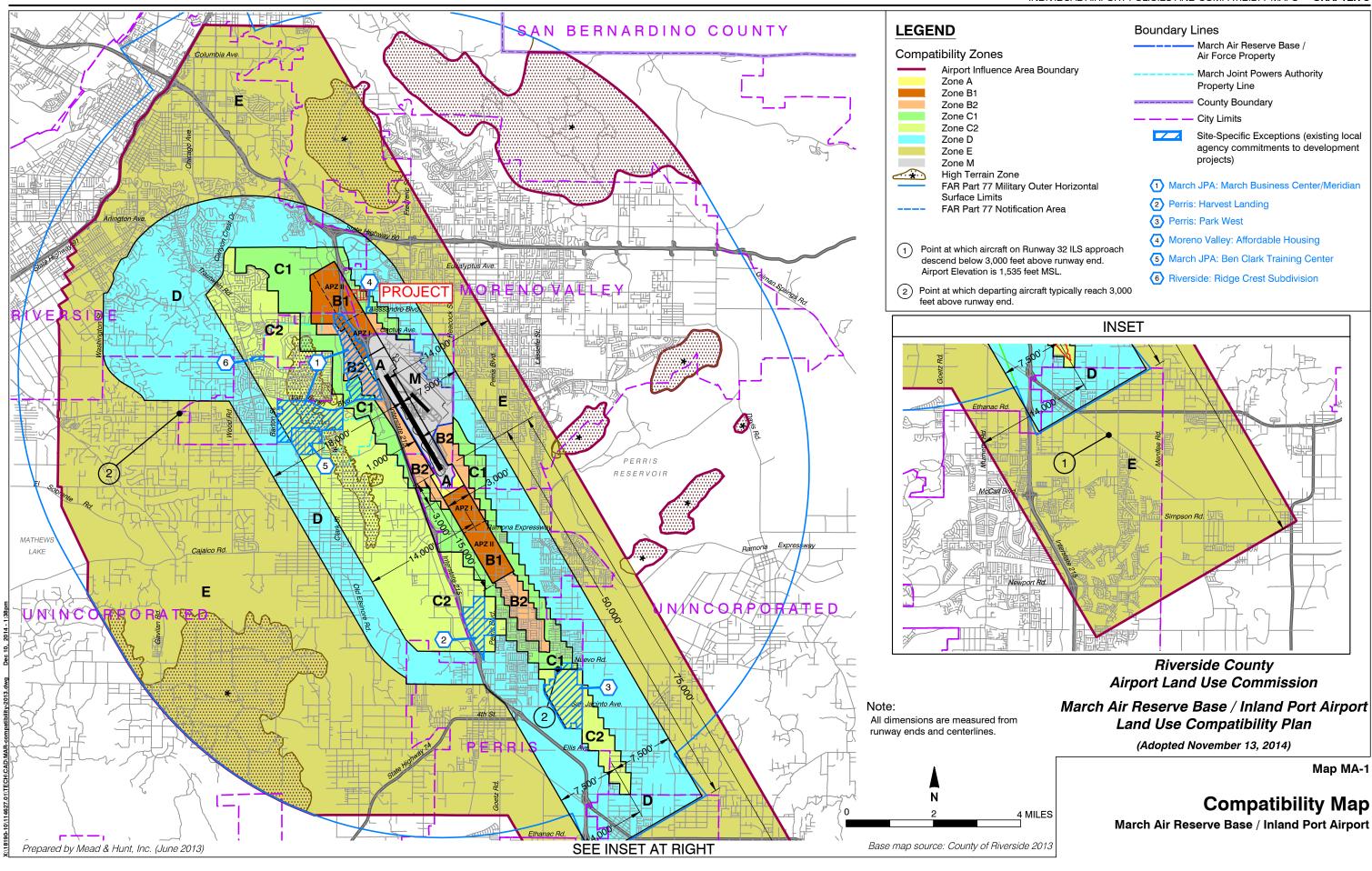
PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

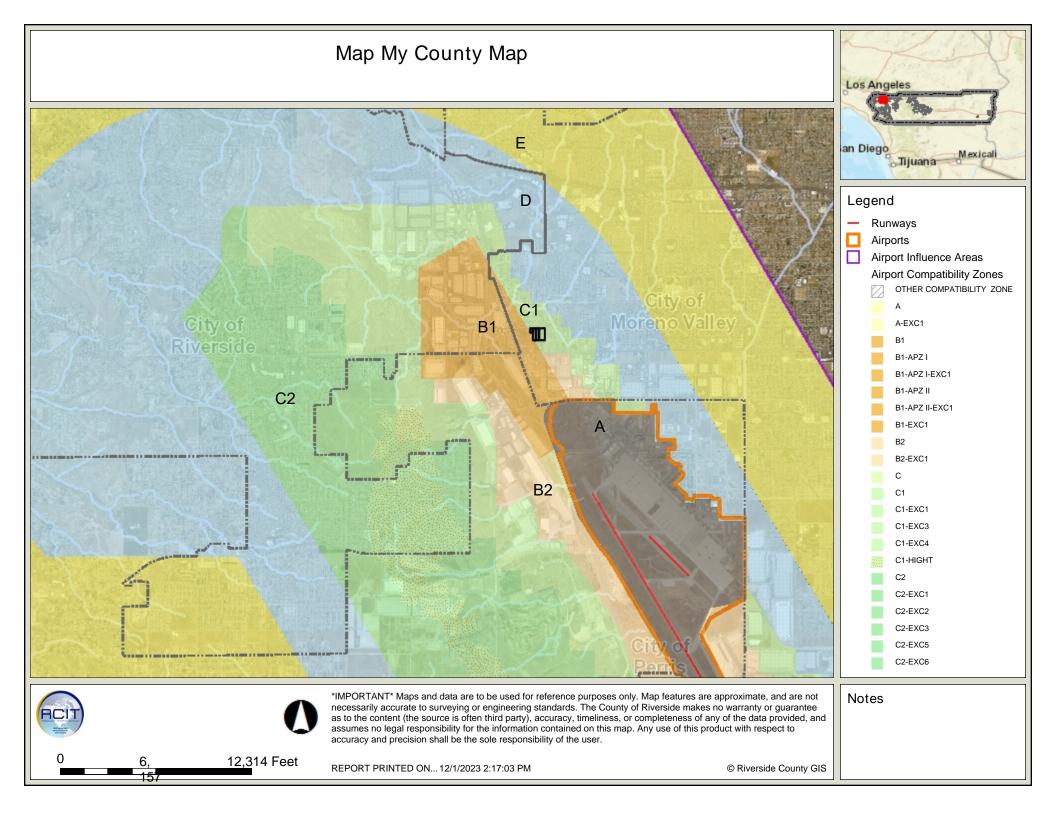


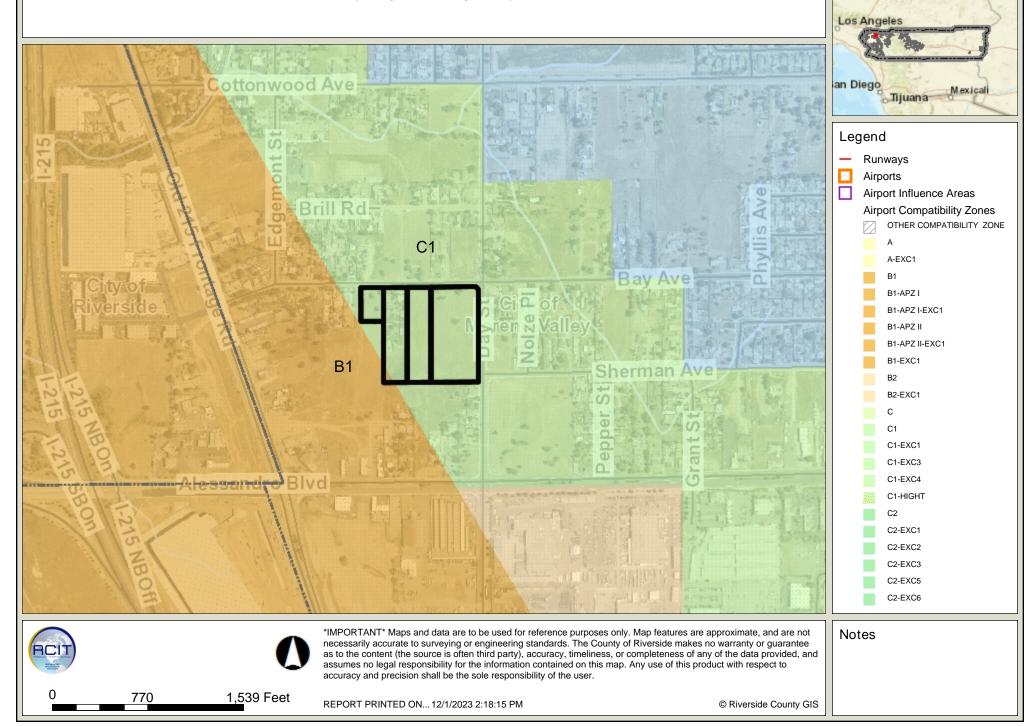
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Name:	Phone:	

Map MA-1











Legend

County Centerline Names

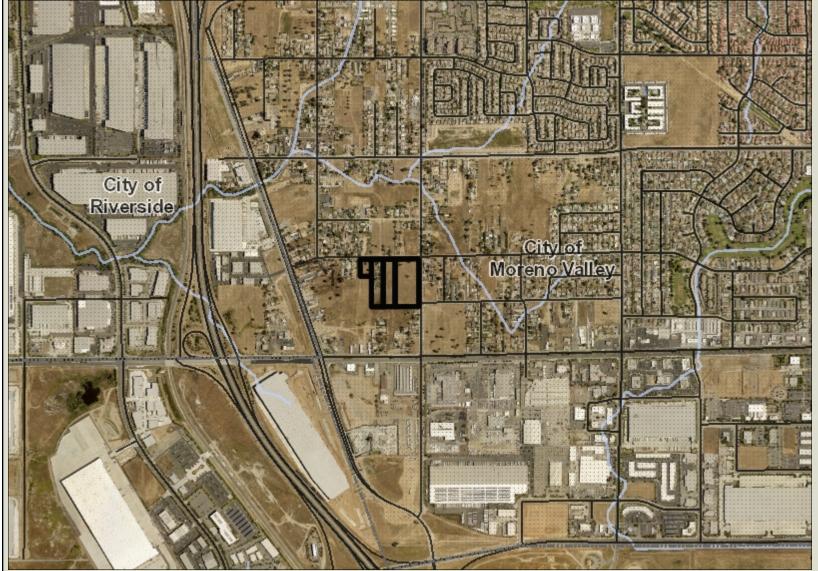
- County Centerlines
- Blueline Streams
- City Areas
 World Street Map

Notes





IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.





Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
- World Street Map





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1, 3,079 Feet

REPORT PRINTED ON... 12/1/2023 2:19:46 PM

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Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
 - World Street Map





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770 1,539 Feet

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Legend

- Blueline Streams
- City Areas
 World Street Map





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3, 6,157 Feet

REPORT PRINTED ON... 12/1/2023 2:19:24 PM

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TENTATIVE PARCEL MAP NO. 38179

IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA BEING A SUBDIVISION OF A PORTION OF LOT 34 AND ALL OF LOT 35, BOTH LOTS OF EDGEMONT NUMBER 2, AS PER

MAP RECORDED IN BOOK 12, PAGE 19 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

K 12 AT (AT TO X COLUMNON)

N 89°53'28" W 782.86

N 89°53'28" W 470.15'

PARCEL 1

9.951 AC. (GROSS)

9.566 AC. (NET)

1552.84 FF

1552.34 PAD

N 89'54'49" W 633.03'

BALDAWI MURTADHA NSAIF ET AL

21932 ALESSANDRO BLVD

APN: 263-230-016

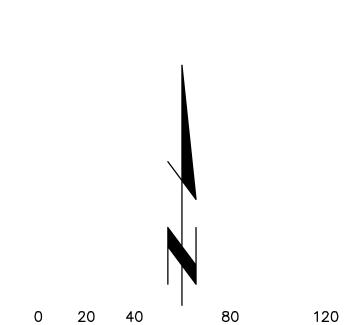
TRUNG THUY VAN NGUYEN

21908 ALESSANDRO BLVD

APN: 263-230-004

263-230-004

DATE OF PREPARATION: 5-13-2020 GROSS ACREAGE: 6.681 NET ACREAGE: 6.640



UTILITY PROVIDERS:

SCALE: 1"=40'

POTABLE WATER BOX SPRINGS MUTUAL WATER COMPANY 27140 DRACAEA AVENUE MORENO VALLEY, CA 92553 PHONE: (951) 653-6419 CONTACT: MELISSA MARTINEZ

CABLE:

CHARTER 17777 CENTER COURT DRIVE NORTH, 8th FLOOR CERRITOS, CA, 90703 PHONE: (562) 667-0259 CONTACT: JUDY BOWERS

ELECTRIC:

CITY OF MORENO VALLEY 14331 FREDERICK STREET, SUITE 2 MORENO VALLEY, CA 92552 PHONE: (951) 413-3500 FAX: (951) 413-3600 CONTACT: CLEMENT JIMENEZ

TELEPHONE:

AT&T 1265 VAN BUREN STREET, STE 180 ANAHEIM, CA 92807 PHONE: (714) 666-5503 CONTACT: CAROL BOSTROM

SO. CALIF. GAS COMPANY REDLANDS, CA 92374-9720 PHONE: (909) 335-7797

1981 W. LUGONIA AVENUE, P.O. BOX 3003 FAX: (909) 335-7527 CONTACT: STEVEN VARGAS

<u>SEWER</u> EDGEMONT COMMUNITY SERVICES DISTRICT P.O.BOX 5436 RIVERSIDE, CA 92517 PHONE: (951) 784-2632 CONTACT: JESSICA PFALMER

SUR VE YOR: PREPARED UNDER THE DIRECTION OF:



Last Update:11/13/23 \TE1\Thienes\3900—3999\3930\TPM\3930_TPM.dw PEN21-0074

SCALE: 1" = 50' | DATE: APRIL 25, 2023 | J.N. 3930 | SHEET 1 OF 1



SHERMAN

AVENUE

LA MIRADA, CALIFORNIA 90638

PH.(714)521-4811 FAX(714)521-4173

CHECKED BY: BLT

DRAWN BY: NKG



LARRY D. COCHRUN (949) 226-4601

ARCHITECT: 18831 BARDEEN AVENUE, SUITE 100 IRVINE, CA 92612 PHONE: (949) 863-1770

TOGETHER WITH, THE EAST ONE—HALF (1/2) OF LOT 34 OF EDGEMONT #2 AS PER MAP RECORDED IN BOOK 12, PAGE 19, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

OWNERSHIP NOTE:

LEGAL DESCRIPTION:

RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

THIS TENTATIVE MAP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF MORENO VALLEY,

LOT 35 OF EDGEMONT 2 AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 19 OF MAPS,

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

EXISTING EASEMENTS:

- 1 A RIGHT OF WAY GRANTED TO THE SOUTHERN SIERRAS POWER COMPANY TO ERECT AND MAINTAIN ITS POLES OR OTHER SUPPORTS WITH WIRES AND FIXTURES THEREON ALONG, OVER, ACROSS AND UPON SAID PROPERTY, AS SET OUT IN AN AGREEMENT RECORDED DECEMBER 20, 1926 IN BOOK 698, PAGE 298 OF DEEDS, A LEASE RECORDED DECEMBER 20, 1926 IN BOOK 11, PAGE 450 OF LEASES, A DEED RECORDED DECEMBER 21, 1926 IN BOOK 698, PAGE 313 OF DEEDS OF RIVERSIDE COUNTY, CALIFORNIA, AND A DEED RECORDED DECEMBER 4, 1931 IN BOOK 69, PAGE 67 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH ANY OTHER RIGHTS OF WAY AND EASEMENTS REFERRED TO IN SAID INSTRUMENTS AND AS SHOWN ON PLATS OR MAPS ATTACHED TO AND MADE A PART OF SAID AGREEMENT AND SAID (SAID EASEMENTS IN STREETS, BAY AVENUE AND DAY STREET, PLOTTED HEREON AS $\langle \overline{A} \rangle$ (SAID EASEMENTS ALONG LOT LINES OF EDGMONT TRACT, WIDTH NOT SPECIFIED, PLOTTED HEREON AS (B), NO WIRES OBSERVED IN THOSE LOCATIONS) (SAID ONSITE RIGHTS TO BE QUITCLAIMED OR REDEDICATED VIA SEPARATE INSTRUMENT.)
- RIGHTS OF WAY, CONDITIONS, AND RESTRICTIONS, WITH REVERSION OF TITLE UPON VIOLATION THEREOF, AS SET OUT IN A DEED FROM EDGEMONT RANCH COMPANY, A CORPORATION, RECORDED MAY 27, 1927 IN BOOK 716, PAGE 541 OF DEEDS, RECORDS OF RIVERSIDE COUNTY, (SAID BUILDING RESTRICTION SUPERCEDED BY CURRENT ZONING CODES, NOTHING PLOTTED) (SPECIFIC LOCATION OF EASEMENTS FOR PIPES, CONDUITS, POLES AND WIRES NOT DESCRIBED IN DOCUMENT, NOTHING PLOTTED HEREON)
- AN EASEMENT FOR EITHER OR BOTH POLE LINES, CONDUITS OR UNDERGROUND FACILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF EDGEMONT RANCH COMPANY, A CORPORATION, RECORDED FEBRUARY 09, 1927 AS BOOK 703, PAGE 376 OF DEEDS. (SAID BUILDING RESTRICTION SUPERCEDED BY CURRENT ZONING CODES, NOTHING PLOTTED) (SPECIFIC LOCATION OF EASEMENTS FOR PIPES, CONDUITS, POLES AND WIRES NOT DESCRIBED IN DOCUMENT, NOTHING PLOTTED HEREON)
- $\langle 4 \rangle$ AN EASEMENT FOR SEWER PIPELINE AND INCIDENTAL PURPOSES, IN FAVOR OF EDGEMONT COMMUNITY SERVICES DISTRICT, RECORDED MAY 06, 1964 AS INSTRUMENT NO. 56196 OF
- angle AN EASEMENT FOR SEWER PIPELINE AND INCIDENTAL PURPOSES, IN FAVOR OF EDGEMONT COMMUNITY SERVICES DISTRICT, RECORDED MAY 06, 1964 AS INSTRUMENT NO. 56197 OF
- 6 AN EASEMENT FOR PERPETUAL AND PUBLIC HIGHWAY AND INCIDENTAL PURPOSES, IN FAVOR OF CITY OF MORENO VALLEY, A MUNICIPAL CORPORATION, RECORDED NOVEMBER 05, 2008 AS INSTRUMENT NO. 2008–0587817 OF OFFICIAL RECORDS.
- $\langle 7
 angle$ AN EASEMENT FOR DRAINAGE AND INCIDENTAL PURPOSES, IN FAVOR OF CITY OF MORENO VALLEY, RECORDED NOVEMBER 05, 2008 AS INSTRUMENT NO. 2008-0587818 OF OFFICIAL RECORDS. (SAID EASEMENT TO BE ABANDONED ON THE MAP) angle AN EASEMENT FOR PONDING AND INCIDENTAL PURPOSES, IN FAVOR OF CITY OF MORENO VALLEY,

RECORDED NOVEMBER 05, 2008 AS INSTRUMENT NO. 2008-0587819 OF OFFICIAL RECORDS.

- (SAID EASEMENT TO BE ABANDONED ON THE MAP) © COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS IN THE DOCUMENT RECORDED MARCH 04, 1935 AS BOOK 217, PAGE 546 OF OFFICIAL RECORDS
- AN EASEMENT FOR PIPELINES AND INCIDENTAL PURPOSES, IN FAVOR OF SOUTHERN CALIFORNIA GAS COMPANY, RECORDED AUGUST 22, 1963 AS INSTRUMENT NO. 88734 OF OFFICIAL RECORDS. (SAID EASEMENT TO BE QUITCLAIMED VIA SEPARATE INSTRUMENT.)

PROPOSED EASEMENTS:

- (1) AN EASEMENT FOR STREET AND PUBLIC UTILITY PURPOSES TO THE THE CITY OF MORENO VALLEY, TO BE DEDICATED ON THE FINAL MAP (BAY AVENUE).
- 2) AN EASEMENT FOR STREET AND PUBLIC UTILITY PURPOSES TO THE THE CITY OF MORENO VALLEY, TO BE DEDICATED ON THE FINAL MAP (DAY STREET).

ZONING:

ZONING INFORMATION: (THE FOLLOWING ZONE DESIGNATIONS ARE PER CITY OF MORENO VALLEY DEPARTMENT OF ENGINEERING / MAPPING)

- ZONING FOR ENTIRE SITE GENERAL PLAN DESIGNATION: ZONING DESIGNATION:

BP - BUSINESS PARK/LIGHT INDUSTRIAL L I – INDUSTRIAL/ BUSINESS PARK

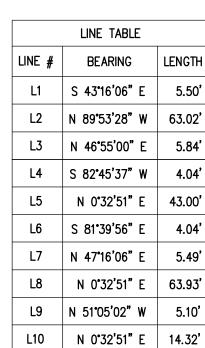
BASIS OF BEARINGS:

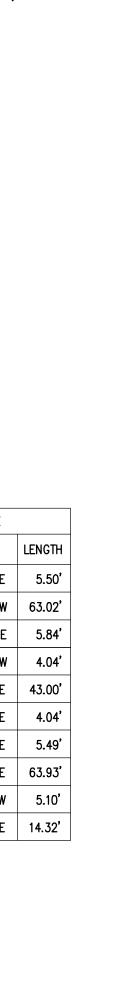
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM (CCS83), ZONE 6, NORTH AMERICAN DATUM 1983 (NAD83) BASED LOCALLY ON CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) "MLFP" AND "P584" AS BEING NORTH 84°41'07.4104" WEST (BASIS OF BEARINGS) (GRID) AND REPRESENTED HEREON BY THE CENTERLINE OF ALESSANDRO AVENUE AS BEING NORTH 89°14'42" EAST. (2010.0

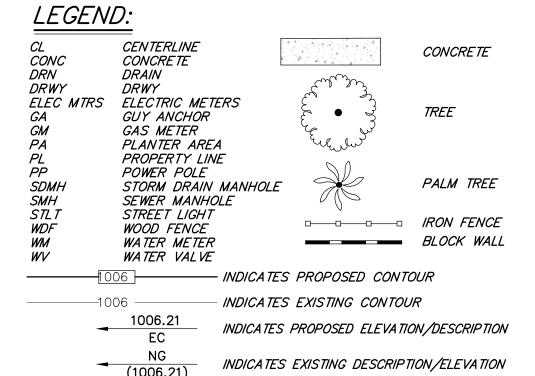
BUILDING TABULATION:

SITE AREA Gross In s.f. In acres Net In s.f. In acres BUILDING AREA Footprint Office - 1st floor Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f. 2nd 20,000 @ 1/2.000 s.f. above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Van Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') EVCS Ambulatory (10' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18')	433,447 9.951	_
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In s.f. In acres BUILDING AREA Footprint Office - 1st floor Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	9.951	s.f
In s.f. In acres BUILDING AREA Footprint Office - 1st floor Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f. 2nd 20,000 @ 1/2.000 s.f. above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Van Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') EVCS Van Accessible (9' x 18')		ac
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Footprint Office - 1st floor Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f. 2nd 20,000 @ 1/2.000 s.f. above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Van Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard Accessible (9' x 18') Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') EVCS Ambulatory (10' x 18') EVCS Provided (9' x 18') EVCS Ambulatory (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') EVCS Van Accessible (9' x 18')	9.562	ac
Office - 1st floor Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.		
Office - 2nd floor Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	191,957	s.f
Warehouse TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	3,000	s.f
TOTAL COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	3,000	
COVERAGE AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f. 2nd 20,000 @ 1/2.000 s.f. above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') TOTAL Provided Parking Breakdown Standard (9' x 18') Standard Accessible (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') Standard Accessible (9' x 18') EVCS Provided (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18')	188,957	s.f
AUTO PARKING REQUIRED Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	194,957	s.f
Office: 1/250 s.f. Whse: 1st 20,000 @ 1/1.000 s.f.	46.8%	
Whse: 1st 20,000 @ 1/1.000 s.f. 2nd 20,000 @ 1/2.000 s.f. above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard (9' x 18') Standard Accessible (9' x 18') EV Capable Space (9' x 18') EVCS Ambulatory (10' x 18') EVCS Ambulatory (10' x 18') EVCS Ambulatory (10' x 18') EVCS Standard Accessible (9' x 18') EV Capable Space (9' x 18') EV CS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') EVCS Van Accessible (9' x 18')		
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above 40,000 @ 1/4,000 s.f. TOTAL PARKING PROVIDED REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard Accessible (9' x 18') Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard Accessible (9' x 18') EVCS Provided (9' x 18') EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18')	20	sta
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REQUIRED ACCESSIBLE PARKING FOR DISA Standard Accessible (9' x 18') Van Accessible (12' x 18') Total REEQUIRED EV PARKING EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Ambulatory (10' x 18') TOTAL Provided Parking Breakdown Standard (9' x 18') Standard Accessible (9' x 18') EV Capable Space (9' x 18') Standard Accessible (12' x 18') EV Capable Space (9' x 18') EV CS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') EVCS Van Accessible (9' x 18')	92	- sta
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Provided Parking Breakdown Standard (9' x 18') Standard Accessible (9' x 18') Van Accessible (12' x 18') EV Capable Space (9' x 18') EVCS Provided (9' x 18') EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') Total		- sta
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EVCS Standard Accessible (9' x 18') EVCS Van Accessible (9' x 18') Total		sta
EVCS Van Accessible (9' x 18') Total		sta
Total		
		sta
I KAILER PARKING REQUIRED	94	sta
	20	-1-
Trailer: 1 per dock door	20	do
TRAILER PARKING PROVIDED Trailer (12' x 53')	56	sta
ZONING ORDINANCE FOR CITY	50	510
Zoning Designation - Business park (BP)		
MAXIMUM BUILDING HEIGHT ALLOWED		
Height - no height requirement		
MAXIMUM FLOOR AREA RATIO		
FAR - to be verified		
SETBACKS		
	idscape	
	nt / street	_ 1

Side/Rear - 3'







APN: 263-230-019

STEIN HARRY DAVID REVOCABLE TRUST

21874 ALESSANDRO BLVD

APN: 263-230-017

URRUTIA EDGAR R AND BERTA A

21892 ALESSANDRO BLVD

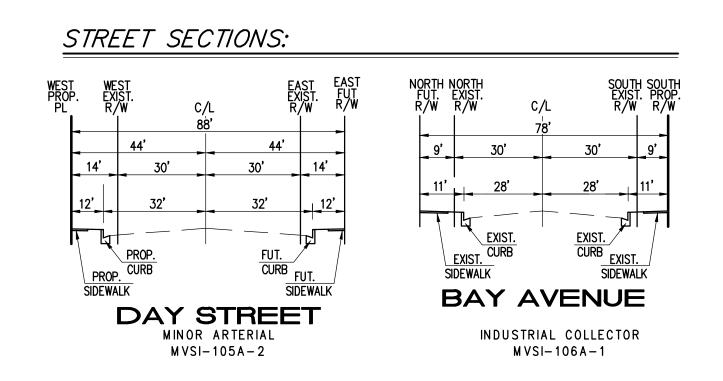
N 89°53'28" W 204.47'

N 89°53'28" W 150.00'

APN: 263-230-002

CLAPPIER DORIS THOMASON

20' BUILDING SETBACK LINE

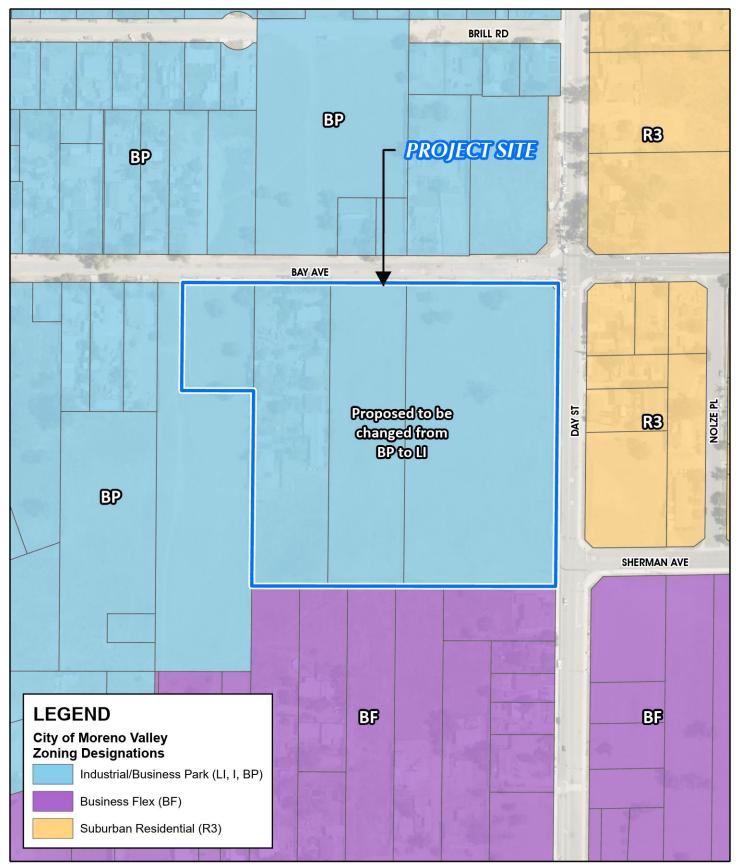




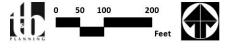
MOTA AURORA AND FRIAS ANTONIO

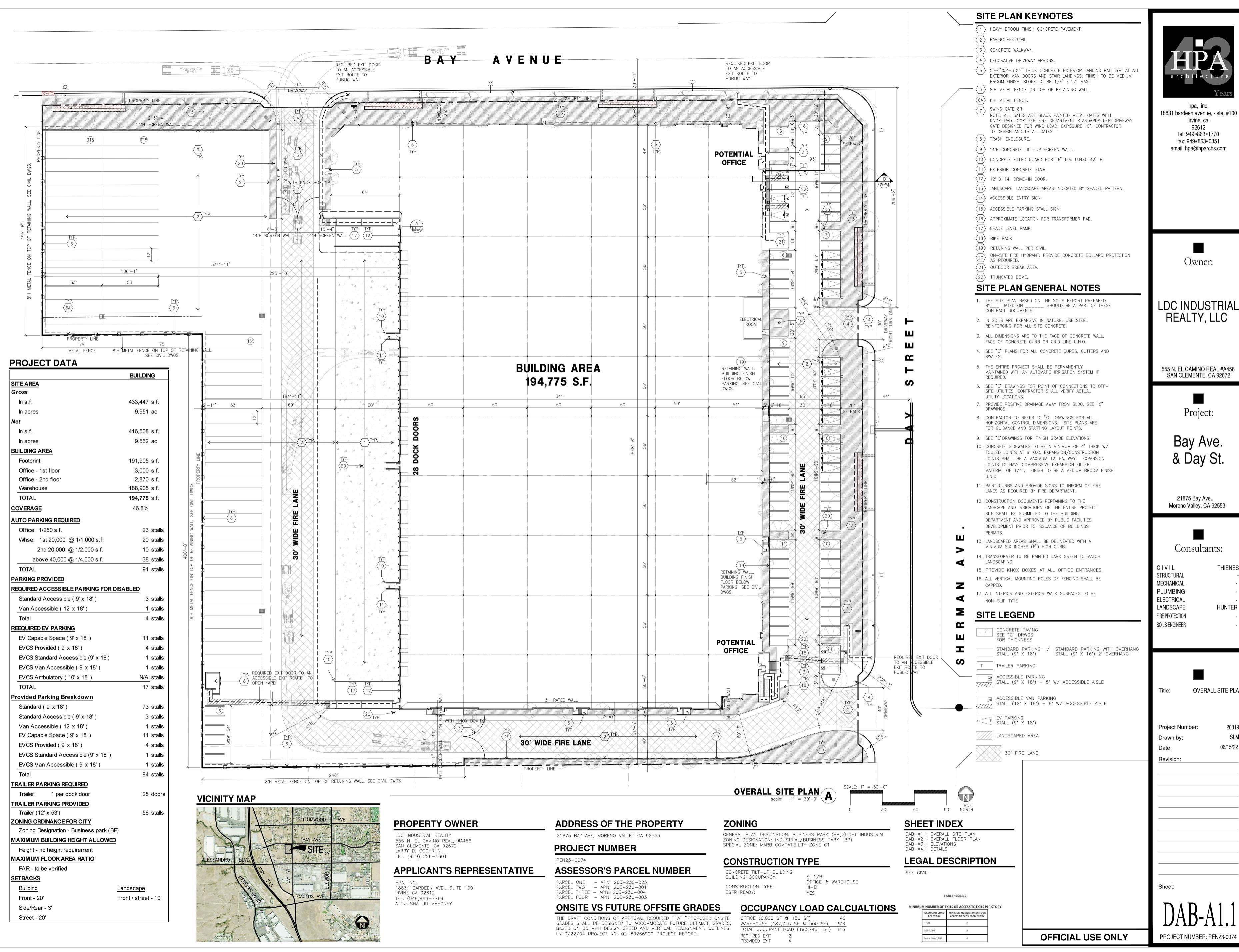
APN: 263-230-025

AVENUE



Source(s): City of Moreno Valley (2022), Esri, RCIT (2023)





hpa, inc. 18831 bardeen avenue, - ste. #100 irvine, ca tel: 949 •863 •1770

Owner:

LDC INDUSTRIAL REALTY, LLC

555 N. EL CAMINO REAL #A456 SAN CLEMENTE, CA 92672

Project:

Bay Ave. & Day St.

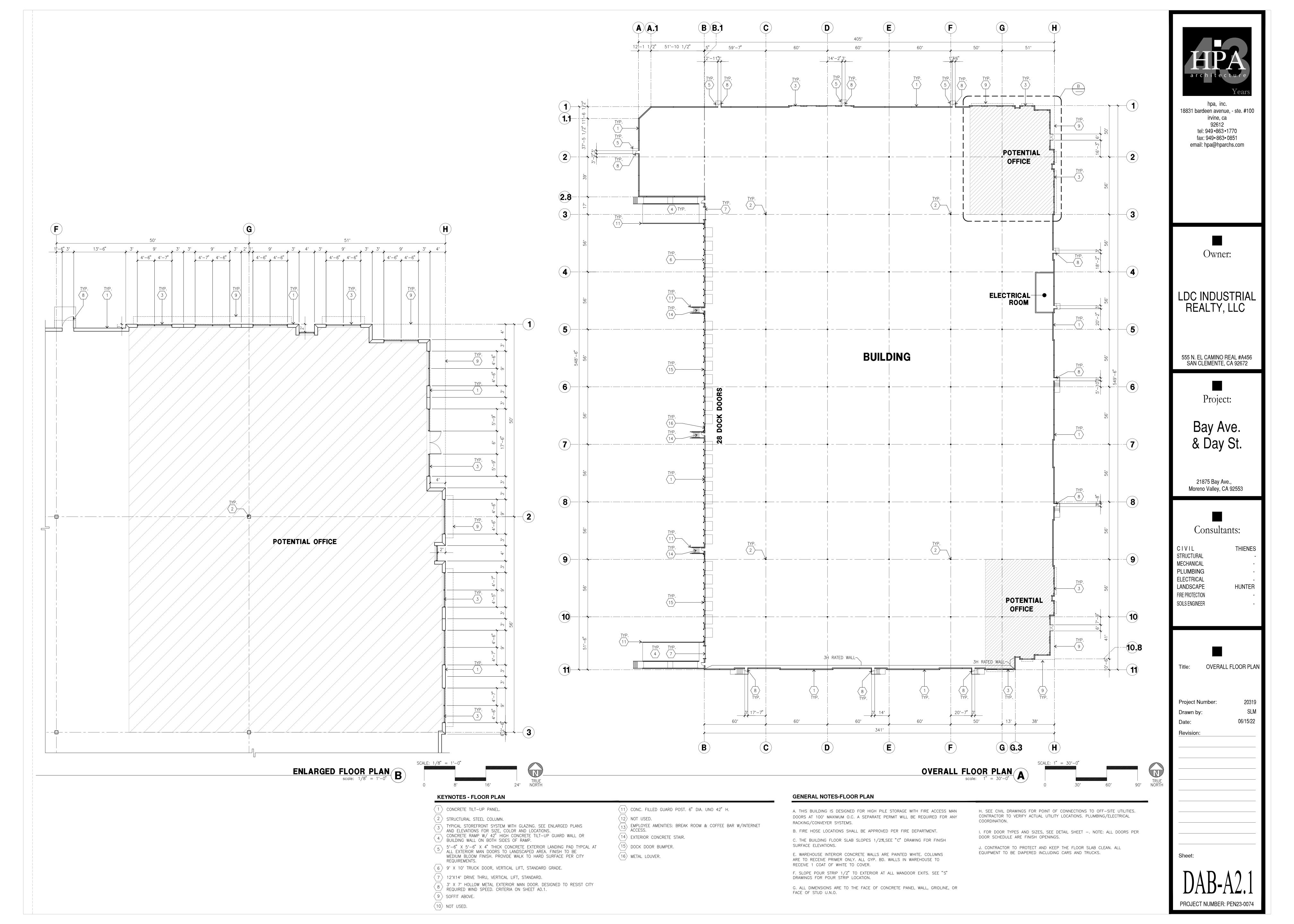
21875 Bay Ave.,

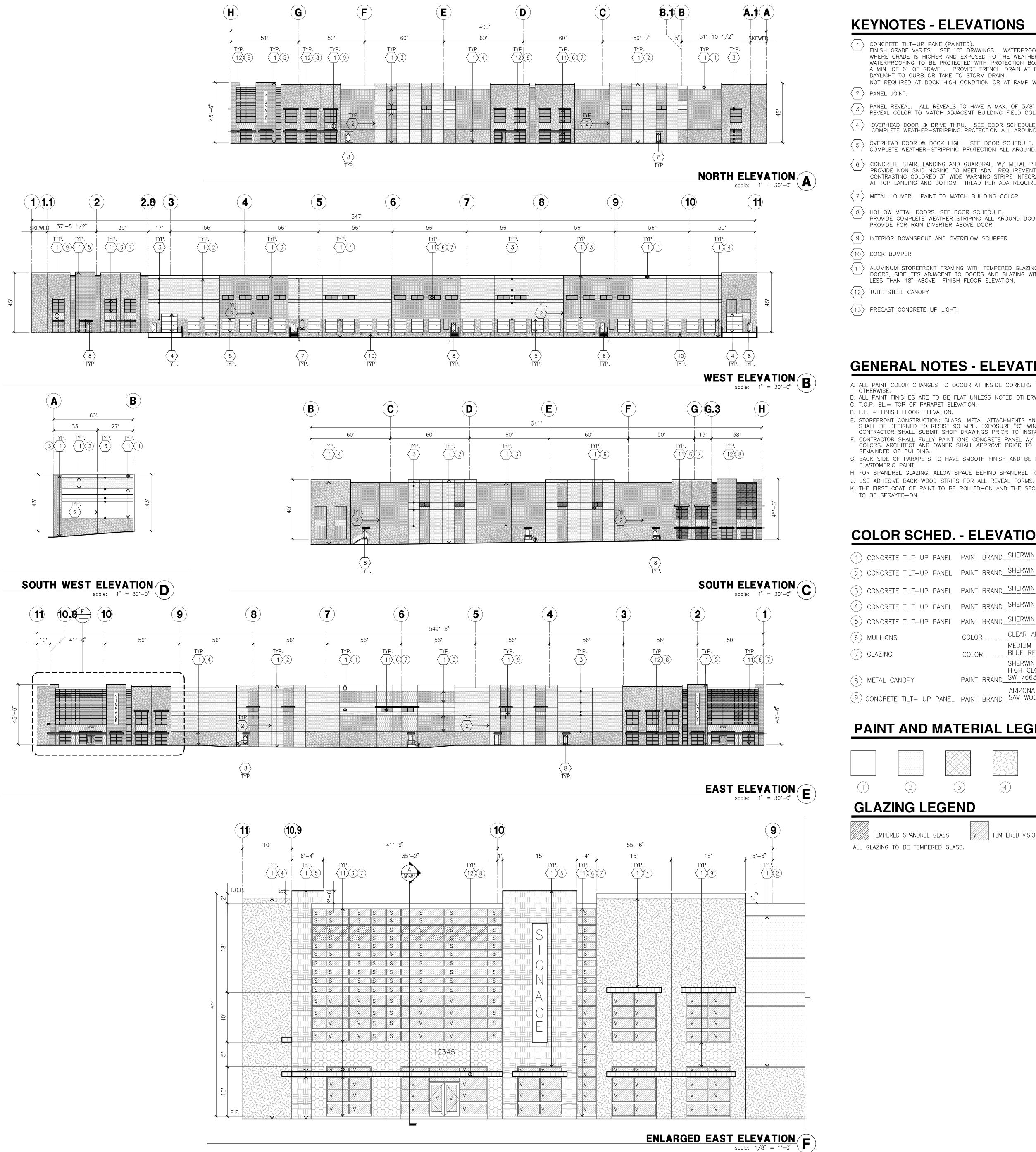
Consultants:

THIENES HUNTER

OVERALL SITE PLAN

20319 06/15/22





KEYNOTES - ELEVATIONS

- 1 CONCRETE TILT-UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN. NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
- PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
- 4 OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
- 5 OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
- 6 CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
- $\overline{7}$ METAL LOUVER, PAINT TO MATCH BUILDING COLOR.
- 8 HOLLOW METAL DOORS. SEE DOOR SCHEDULE.
 PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
- \langle 9 \rangle interior downspout and overflow scupper
- \langle 11angle aluminum storefront framing with tempered glazing at all DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
- 12 TUBE STEEL CANOPY
- 13 PRECAST CONCRETE UP LIGHT.

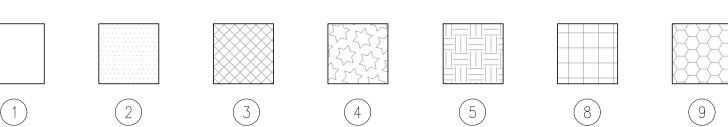
GENERAL NOTES - ELEVATIONS

- A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED
- B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE. C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
- D. F.F. = FINISH FLOOR ELEVATION.
- E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
- F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING
- REMAINDER OF BUILDING.
- G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
- H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
- K. THE FIRST COAT OF PAINT TO BE ROLLED—ON AND THE SECOND COAT TO BE SPRAYED—ON

COLOR SCHED. - ELEVATIONS

- (1) CONCRETE TILT-UP PANEL PAINT BRAND SHERWIN WILLIAMS SW 7005 PURE WHITE
- (2) CONCRETE TILT-UP PANEL PAINT BRAND_SHERWIN_WILLIAMS_SW_7042_SHOJI_WHITE
- 3 CONCRETE TILT-UP PANEL PAINT BRAND SHERWIN WILLIAMS SW 7044 AMAZING GRAY
- (4) CONCRETE TILT-UP PANEL PAINT BRAND_SHERWIN_WILLIAMS SW 6158 SAWDUST
- (5) CONCRETE TILT-UP PANEL PAINT BRAND_SHERWIN WILLIAMS SW 7604 SMOKEY BLUE
- CLEAR ANODIZED MULLIONS
- MEDIUM PERFORMANCE BLUE REFLECTIVE GLAZING
- SHERWIN WILLIAMS ACRYLIC LATEX SYSTEM HIGH GLOSS/HIGH PERFORMANCE PAINT BRAND SW 7663 MONORAIL SILVER
- (8) METAL CANOPY
- 9 CONCRETE TILT— UP PANEL PAINT BRAND SAV WOOD IROKO 8X32

PAINT AND MATERIAL LEGEND



GLAZING LEGEND

| IV + + | INSULATED VISION GLASS TEMPERED SPANDREL GLASS TEMPERED VISION GLASS ALL GLAZING TO BE TEMPERED GLASS.



hpa, inc. 18831 bardeen avenue, - ste. #100 irvine, ca tel: 949 •863 •1770 fax: 949 • 863 • 0851 email: hpa@hparchs.com



LDC INDUSTRIAL REALTY, LLC

555 N. EL CAMINO REAL #A456 SAN CLEMENTE, CA 92672



Bay Ave. & Day St.

21875 Bay Ave., Moreno Valley, CA 92553

Consultants:

THIENES CIVIL STRUCTURAL MECHANICAL **PLUMBING**

ELECTRICAL HUNTER LANDSCAPE FIRE PROTECTION SOILS ENGINEER

20319

06/15/22

SLM

ELEVATIONS

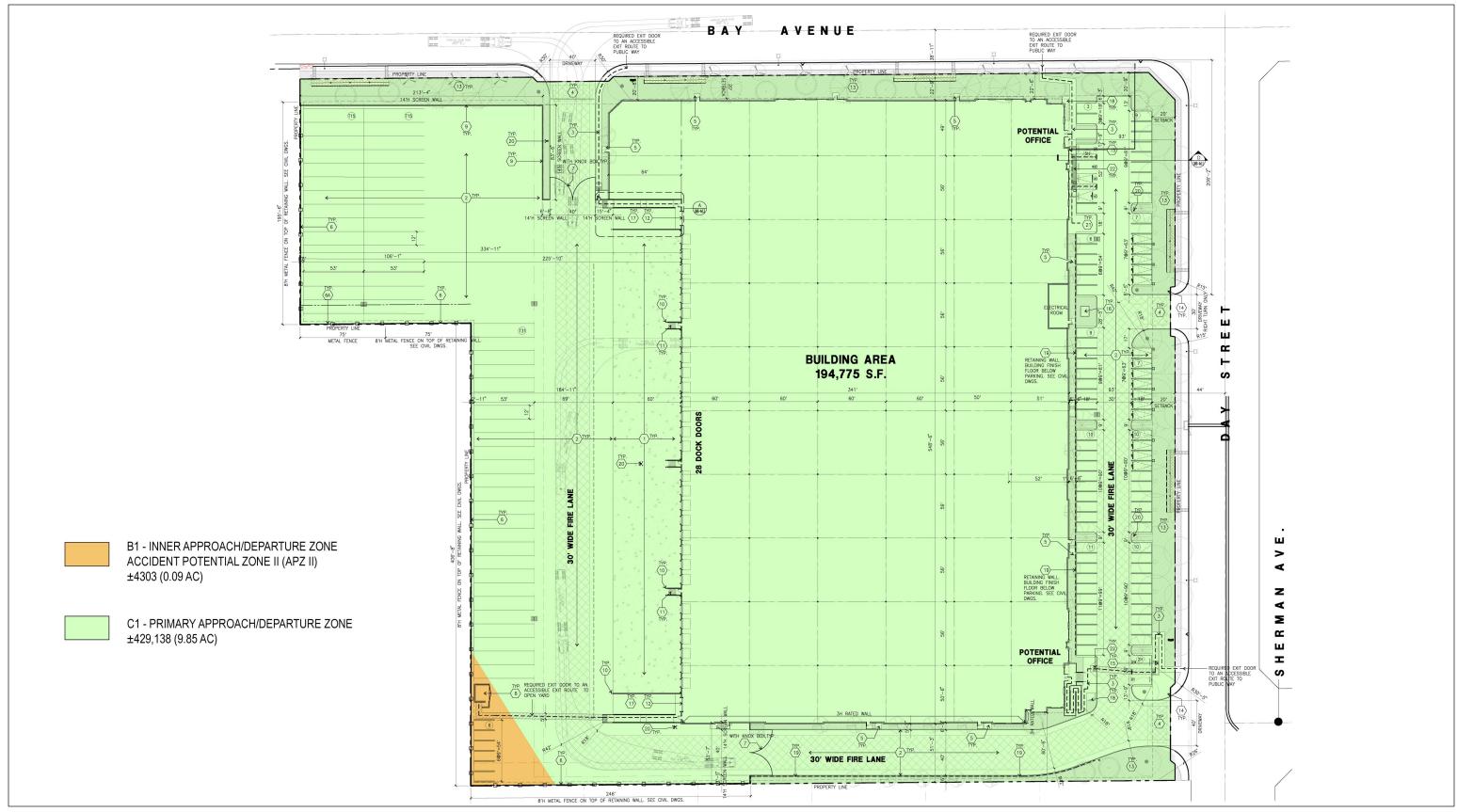
Project Number:

Drawn by: Date:

Revision:

Sheet:

PROJECT NUMBER: PEN23-0074



Source(s): HPA (11-02-2023)



ALUC Map

NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact ALUC Planner Jackie Vega at (951) 955-0982.

The City of Moreno Valley Planning Department should be contacted on non-ALUC issues. For more information, please contact City of Moreno Valley Planner Danielle Harper-Scott at 951-413-3224.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to javega@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

ZAP1591MA23 – Bay & Day, LLC (Representative: T&B Planning) – City of Moreno Valley Case Nos. PEN23-0076 (Change of Zone), PEN23-074 (Plot Plan), PEN23-0075 (Tentative Parcel Map). A proposal to construct a 194,775 square foot industrial building with mezzanines on 9.95 acres, located on the southwest corner of Bay Avenue and Day Street. The applicant also proposes to change the sites zoning from Business Park (BP) to Light Industrial (LI), and merge four separate parcels into one. (Airport Compatibility Zones B1-APZ-II and C1).



APPLICATION FOR MAJOR LAND USE ACTION REVIEW

		ALUC CTAFF ON	II V -	
ALUC STAFF ONLY ALUC Case Number: ZAP1591MA23 Date Submitted: 11/29/23				
AIA:		Zone: B1 and		Public Hearing Staff Review
Mar	ch 			<u> </u>
		Applicant		
Applicant Full Name:	Bay & Day LLC			
Applicant Ad	ddress: 18W140 Butterfield	Road, Suite 750	, Oa	kbrook Terrace, IL 60181
Phone:	630.576.1105	Email: to	incin	nelli@moltoproperties.com
		/ Property Owner (Conta	act Information
Representat	_{ive:} T&B Planning			Email: dornelas@tbplann
	David Ornelas			Phone: 619.501.6041 Ext.
Address: 32	200 El Camino Real, Suite	100, Irvine CA 9	2602	
Property Owner:	Bay & Day LLC			Email: 630.576.1105
	Tony Cincinelli			Phone: tcincinelli@moltop
Address. 18	3W140 Butterfield Road, S	uite 750, Oakbro	ok T	
7.10.0				
Agency		ocal Jurisdiction A	genc	
Name:	City of Moreno Valley			Phone: 951.413.3224
Staff Contact	tt: Danieller Harper-Scott			Email: danielleh@moval.org
Address: 14177 Frederick St, Moreno Valley CA 92552 :				
Local Agend Case No.:	PEN23-0074, PEN2	3-0075, PEN23-0	076	
		Project Locatio	n	
Street Address:	21875 Bay Ave, M	loreno Valley CA		Gross Parcel Size.: 9.951 acres
Assessor's Parcel No.: 263-230-025, 263-230-001, 263-230-004, 263-230-003				
		Solar		
Is the projec	t proposing solar Panels? Yes	No [√	If yes, please provide solar glare study. (only if in Zone C or higher)

Note: Solar panels will be tenant specific; applicant will resubmit to ALUC when panel specifications are known.

	Data Data			
Site Elevation:(above mean sea level)	1552 feet			
Height of Building or structures:	45.5 feet			
What type of drainage basins are being proposed and the square footage: Primary drainage is underground detention chamber				
	Notice			

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of existing and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing).

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.5

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1590MA23 – Industrial VI Enterprises, LLC

(Representative: Albert A. Webb Associates)

APPROVING JURISDICTION: County of Riverside

JURISDICTION CASE NO: CZ2200062 (Change of Zone), PPT22-0050 (Plot Plan),

TPM38601 (Tentative Parcel Map)

LAND USE PLAN: 2014 March Air Reserve Base/Inland Port Airport Land Use

Compatibility Plan

Airport Influence Area: March Air Reserve Base

Land Use Policy: Zone C2

Noise Levels: Below 60 CNEL contour

MAJOR ISSUES: None

RECOMMENDATION: Staff recommends that the Commission find the proposed Change of Zone <u>CONSISTENT</u> with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan and find the proposed Plot Plan and Tentative Parcel Map <u>CONDITIONALLY CONSISTENT</u>, subject to the conditions included herein, and such additional conditions as may be required by the Federal Aviation Administration Obstruction Evaluation Service.

PROJECT DESCRIPTION: A proposal to construct a 1,003,510 square foot industrial building with mezzanines on 44.84 acres, and a recreational park consisting of a sports field, picnic area, tot lot, and a 3,110 square foot snack bar on a separate 4.19 acres. The applicant also proposes to change the site's zoning from Light Agriculture (A-1-1), Rural Residential (R-R-1/2) to Industrial Park (I-P). The applicant also proposes dividing 58.19 acres into three separate parcels. The applicant also proposes to construct a 1,003,510 square foot solar panel on the industrial building rooftop and 3,110 square foot solar panel system on the proposed snack bar.

PROJECT LOCATION: The site is located on the southwest corner of Cajalco Road and Seaton Avenue, approximately 10,932 feet southwesterly of the southerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

<u>Non-Residential Average Intensity</u>: Pursuant to the Airport Land Use Compatibility Plan for the March Air Reserve Base/Inland Port Airport, the site is located within Compatibility Zone C2, which limits average intensity to 200 people per acre.

Pursuant to Appendix C, Table C-1, of the Riverside County Airport Land Use Compatibility Plan and the Additional Compatibility Policies included in the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, the following rates were used to calculate the occupancy for the proposed project:

- Manufacturing 1 person per 200 square feet,
- Office 1 person per 200 square feet, and
- Retail 1 person per 115 square feet.

The project proposes to construct a 1,003,510 square foot industrial building with mezzanines and a 3,110 square foot snack bar. The project also proposes to divide 58.19 acres into three separate parcels. Therefore, the average intensity must be considered on a lot-by-lot basis:

- Parcel 1 (44.84 acres) Building 1 proposes a 1,003,510 square foot industrial building, consisting of 983,510 square feet of warehouse area, 10,000 square feet of office area, and 10,000 square feet of second floor office mezzanine area, accommodating 5,018 people, resulting in an average intensity of 112 people per acre, which is consistent with Compatibility Zone C2 average intensity criterion of 200 people per acre.
- Parcel 2 (4.19 acres) Building 2 proposes a 3,110 square foot snack bar building, consisting
 of 2,568 square feet of office area, and 542 square feet of retail area, accommodating 18
 people, resulting in an average intensity of 4 people per acre, which is consistent with
 Compatibility Zone C2 average intensity criterion of 200 people per acre.

A second method for determining total occupancy involves multiplying the number of parking spaces provided or required (whichever is greater) by average vehicle occupancy (assumed to be 1.5 persons per vehicle and 1.0 persons per trailer truck space). Based on the number of parking spaces provided (453 standard vehicles) and (153 trailer parking), the total occupancy would be estimated at 833 people for an average intensity of 17 people per acre, which is consistent with the Compatibility Zone C2 average intensity criterion of 200 people per acre.

Non-Residential Single-Acre Intensity: Compatibility Zone C2 limits maximum single-acre intensity to 500 people. There are no risk-reduction design bonuses available, as March Air Reserve Base/Inland Port Airport is primarily utilized by large aircraft weighing more than 12,500 pounds.

Based on the site plan provided and the occupancies as previously noted, the maximum single-acre area would include 33,560 square feet of manufacturing area, 10,000 square feet of office area, and 10,000 square feet of second floor office mezzanines, resulting in a single acre occupancy of 268 people which is consistent with the Compatibility Zone C2 single acre criterion of 500.

March Air Reserve Base/United States Air Force Input: Given that the project site is located in Zone C2 southwesterly of the southerly runway at March Air Reserve Base, the March Air Reserve Base staff was notified of the proposal to add rooftop solar panels and sent a solar glare hazard analysis study for their review. On November 15, 2023, the Air Force provided comments

concurring with the analysis and conclusions of the glare study.

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses prohibited or discouraged in Compatibility Zone C2.

<u>Flight Hazard Issues</u>: Structure height, electrical interference, and reflectivity/glare are among the issues that solar panels in the airport influence area must address. The project's 1,003,510 square foot photovoltaic (PV) panel structures would be located on the rooftop of a proposed industrial building and 3,110 square feet on the proposed snack bar, within Compatibility Zone C2.

Glint and Glare/Reflectivity

Based on the Federal Aviation Administration's Interim Policy for Review of Solar Energy System Projects on Federally Obligated Airports, no glare potential or low potential for temporary afterimage ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property. However, potential for temporary after-image" ("yellow" level) and potential for permanent eye damage ("red" level) are not acceptable levels of glare on final approach. No glare is permitted at air traffic control towers.

The project proposes 1,003,510 square feet of solar panels on the proposed industrial building rooftop and 3,110 square foot solar panel system on the proposed snack bar, with a fixed tilt of 10.0 degrees with no rotation, and an orientation of 180 degrees. The applicant has submitted a glare analysis utilizing the web-based Forge Solar, a copy of which is attached hereto. The analysis was based on a 2 mile straight in approach (as per FAA Interim Policy standards) to runways 14 and 32, and also based on the traffic patterns as identified by March Air Reserve Base staff (Runway 12/30 General Aviation, Runway 14/32 General Aviation, Runway 14/32 C-17/KC-135, Runway 14/32 Overhead). The analysis utilized a glide slope approach of 3.0 degrees. No glare would affect the Air Traffic Control Tower.

The analysis concluded that some glare would occur on the 2 mile approach to the runways, and some potential for glare was identified within the Air Force traffic pattern. Evaluation of the Air Force traffic patterns indicates that the panels would result in a low potential for temporary after-image ("green" level glare) or no glare. All times are in standard time.

Runway 14/32 General Aviation traffic pattern (total 1,530 minutes of 'green' level glare):

• Runway 14 General, totaling 1,530 minutes of "green" level glare, lasting up to 30 minutes a day, from November to January, from 4:00 p.m. to 5:00 p.m.

Runway 14/32 C-17/KC-135 traffic pattern (totaling 65,753 minutes of 'green' level glare):

- Runway 14 C-17-KC-135, totaling 3,469 minutes of "green" level glare, lasting up to 30 minutes a day, in May and July to August, from 5:00 p.m. to 6:00 p.m.
- Runway 32 C-17-KC-135, totaling 62,284 minutes of "green" level glare, lasting up to 55 minutes a day, from September to April, from 7:00 a.m. to 9:00 a.m.

Runway 14/32 Overhead Aviation traffic pattern (totaling 34,041 minutes of 'green' level glare):

• Runway 32 Overhead, totaling 34,041 minutes of "green" level glare, lasting up to 85 minutes a day, from throughout the year from 7:00 a.m. to 9:00 a.m. and 5:00 p.m. to 6:00 p.m.

The project's total of 101,324 minutes of "green" level glare represents 39 percent of total day light time.

Electrical and Communication Interference

The applicant has indicated that they do not plan to utilize equipment that would interfere with aircraft communications. The PV panels themselves present little risk of interfering with radar transmission due to their low profiles. In addition, solar panels do not emit electromagnetic waves over distances that could interfere with radar signal transmissions, and any electrical facilities that do carry concentrated current will be buried beneath the ground and away from any signal transmission. There are no radar transmission or receiving facilities within the site.

<u>Noise:</u> The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site below 60 CNEL range from aircraft noise. The proposed solar panels are a non-noise sensitive use; therefore, no mitigation measures are necessary.

<u>Part 77</u>: The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level (AMSL). At a distance of approximately 10,932 feet from the project to the nearest point on the runway, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 1,597 feet AMSL. The site's finished floor elevation is 1,573 feet AMSL and existing building height is 65 feet, resulting in a top point elevation of 1,638 feet AMSL. Therefore, review of the building for height/elevation reasons by the FAA Obstruction Evaluation Service (FAAOES) was required. The applicant has submitted Form 7460-1, and FAA OES has assigned Aeronautical Study No. 2023-AWP-19769-OE, to this project, and is currently in a "work in progress" status.

<u>Open Area:</u> None of the Compatibility Zones for the March Air Reserve Base/Inland Port ALUCP require open area specifically.

<u>Hazards to Flight:</u> Land use practices that attract or sustain hazardous wildlife populations on or near airports significantly increase the potential of Bird Aircraft Strike Hazards (BASH). The FAA strongly recommends that storm water management systems located within 5,000 or 10,000 feet of the Airport Operations Area, depending on the type of aircraft, be designed and operated so as not to create above-ground standing water. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. All vegetation in and around detention basins that provide food or cover for hazardous wildlife should be eliminated. (FAA Advisory Circular 5200-33C). The project is located 10,932 feet from the runway, and therefore would not be subject to the above requirement.

CONDITIONS:

- 1. Any outdoor lighting installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.
- 2. The following uses/activities are not included in the proposed project and shall be prohibited at this site.

- (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight or circling climb following takeoff or toward an aircraft engaged in a straight or circling final approach toward a landing at an airport, other than a DoD or FAA-approved navigational signal light or visual approach slope indicator.
- (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport to the extent as to result in a potential for temporary after-image greater than the low ("green") level.
- (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, wastewater management facilities, artificial marshes, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
- (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- (e) Highly noise-sensitive outdoor nonresidential uses. Examples of noise-sensitive outdoor nonresidential uses that are prohibited include, but are not limited to, major spectator-oriented sports stadiums, amphitheaters, concert halls and drive-in theaters.
- (f) Hazards to Flight.
- 3. The attached "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property, and be recorded as a deed notice.
- 4. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.
- 5. Any other proposed basin would require review and approval by the ALUC. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm, and remain totally dry between rainfalls. Vegetation in and around the basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the detention basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the

"AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at RCALUC.ORG which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign, in a form similar to that attached hereto, shall be permanently affixed to the stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.

- 6. The project has been evaluated to construct a 1,003,510 square foot industrial building with mezzanines and a 3,110 square foot snack bar. Any increase in building area, change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas will require an amended review to evaluate consistency with the ALUCP compatibility criteria, at the discretion of the ALUC Director.
- 7. All solar arrays installed on the project site shall consist of smooth glass photovoltaic solar panels without anti-reflective coating, a fixed tilt of 10 degrees and orientation of 180 degrees. Solar panels shall be limited to a total of 1,003,510 square feet, and the locations and coordinates shall be as specified in the glare study. Any deviation from these specifications (other than reduction in square footage of panels), including change in orientation, shall require a new solar glare analysis to ensure that the amended project does not result in any glare impacting the air traffic control tower or creation of any "yellow" or "red" level glare in the flight paths, and shall require a new hearing by the Airport Land Use Commission.
- 8. In the event that any glint, glare, or flash affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such glint, glare, or flash. An "event" includes any situation that results in an accident, incident, "near-miss," or specific safety complaint regarding an in-flight experience to the airport operator or to federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the incidence. Suggested measures may include, but are not limited to, changing the orientation and/or tilt of the source, covering the source at the time of day when events of glare occur, or wholly removing the source to diminish or eliminate the source of the glint, glare, or flash. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.
- 9. In the event that any electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such interference. An "event" includes any situation that results in an accident, incident, "nearmiss," report by airport personnel, or specific safety complaint to the airport operator or to

Staff Report Page 7 of 7

federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the event. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.

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NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY.

THIS STORM WATER BASIN IS DESIGNED TO HOLD
STORM WATER FOR ONLY 48 HOURS AND
NOT TO ATTRACT BIRDS

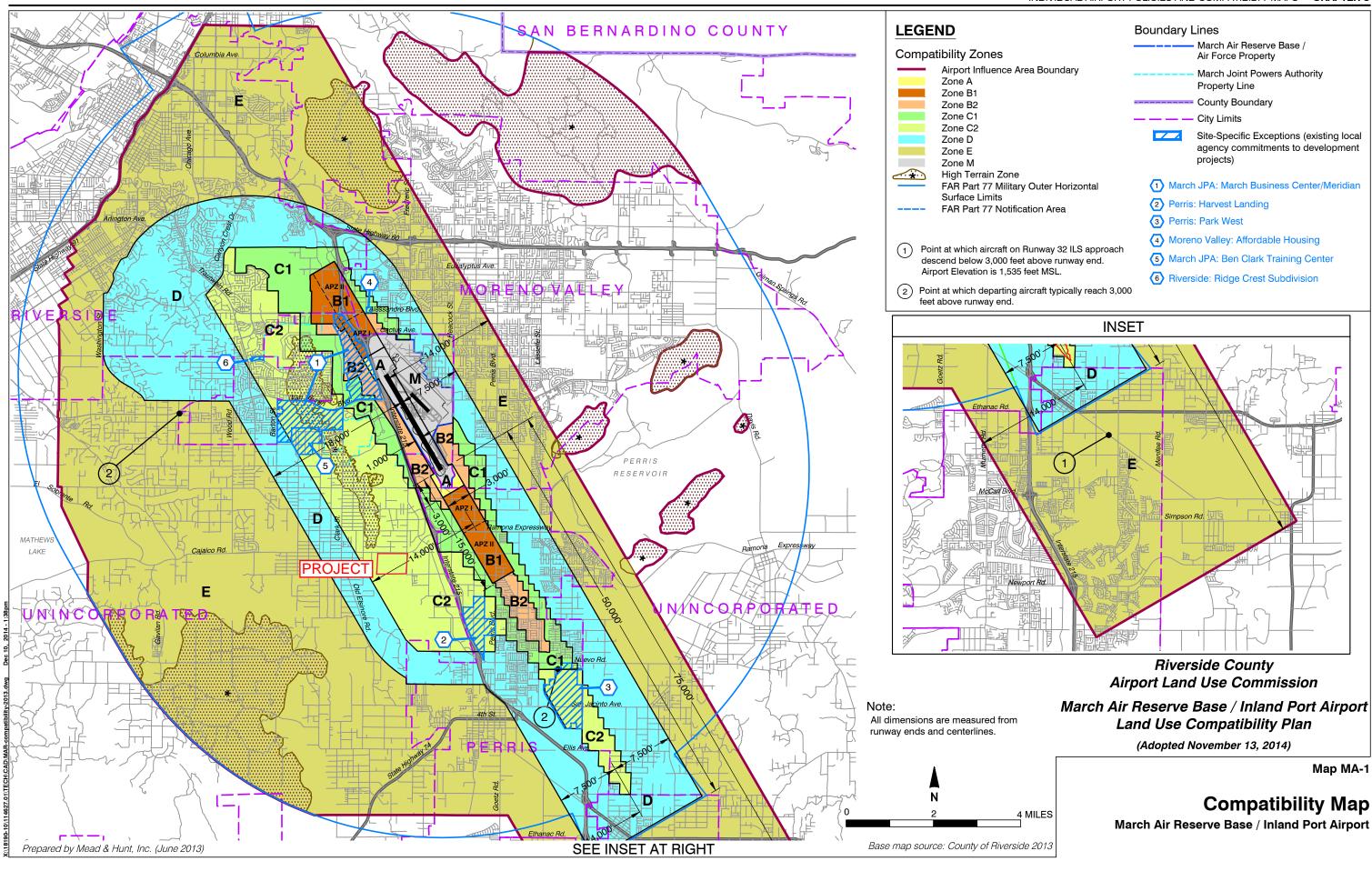
PROPER MAINTENANCE IS NECESSARY TO AVOID

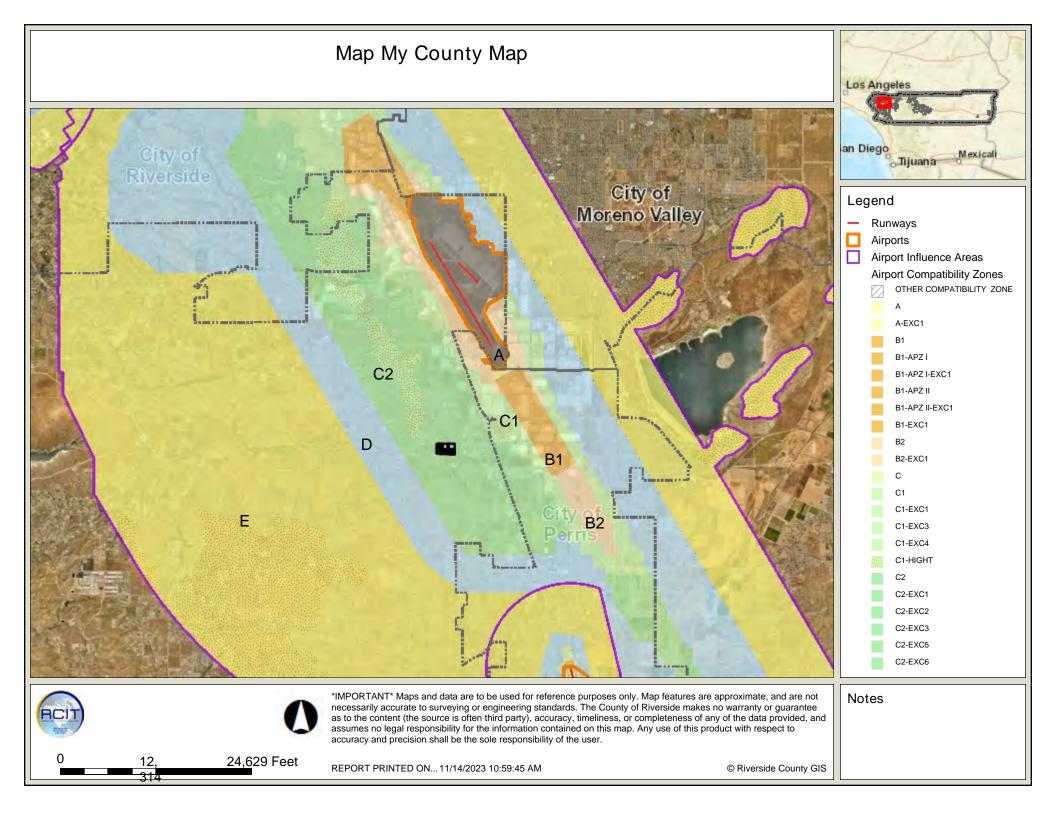
BIRD STRIKES

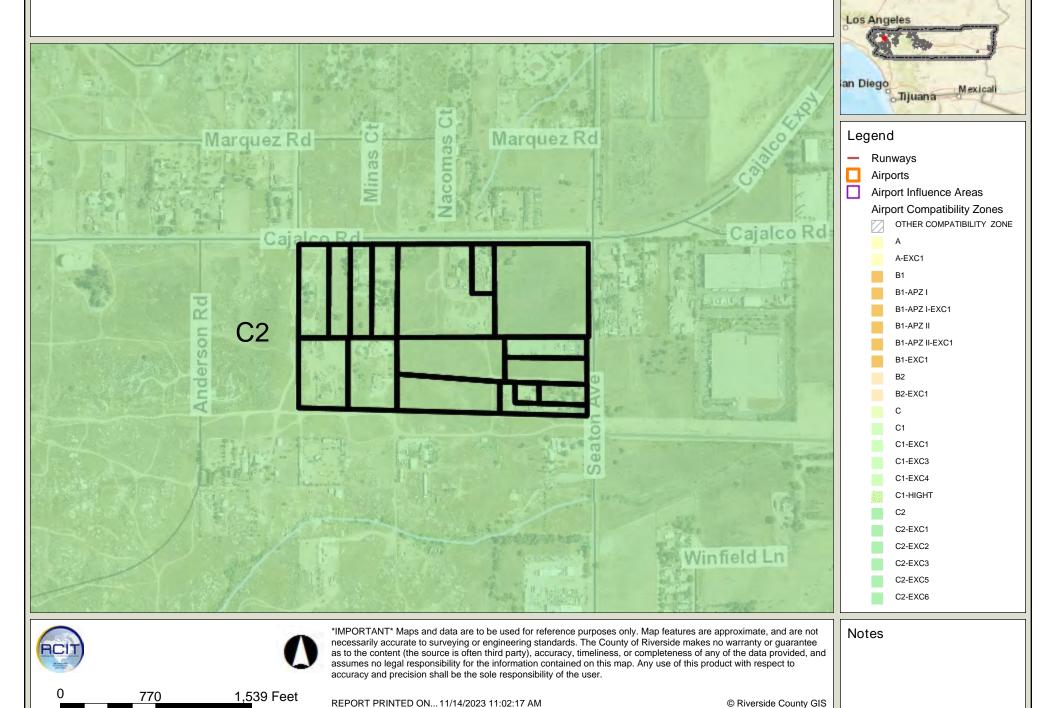


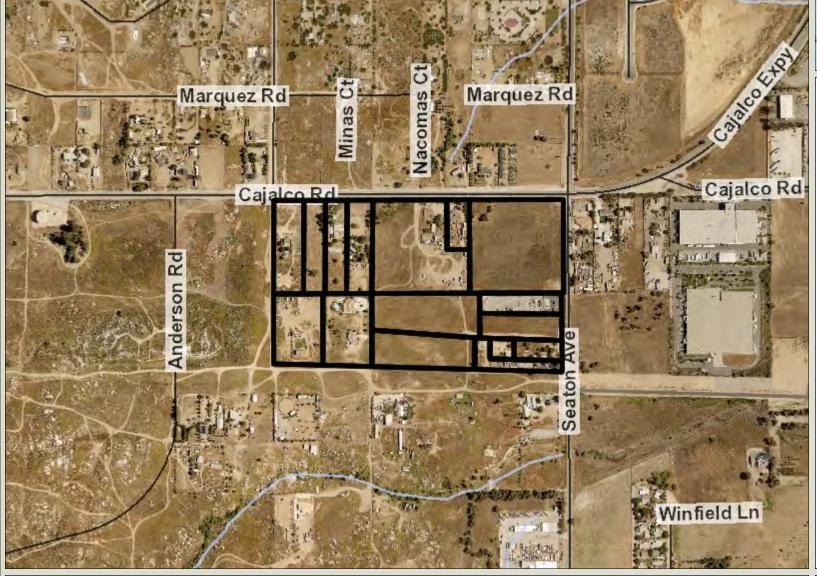
Name:	Phone:	

Map MA-1











Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
 World Street Map





IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

770 1,539 Feet

REPORT PRINTED ON... 11/14/2023 11:02:46 AM

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Map My County Map





Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
- World Street Map



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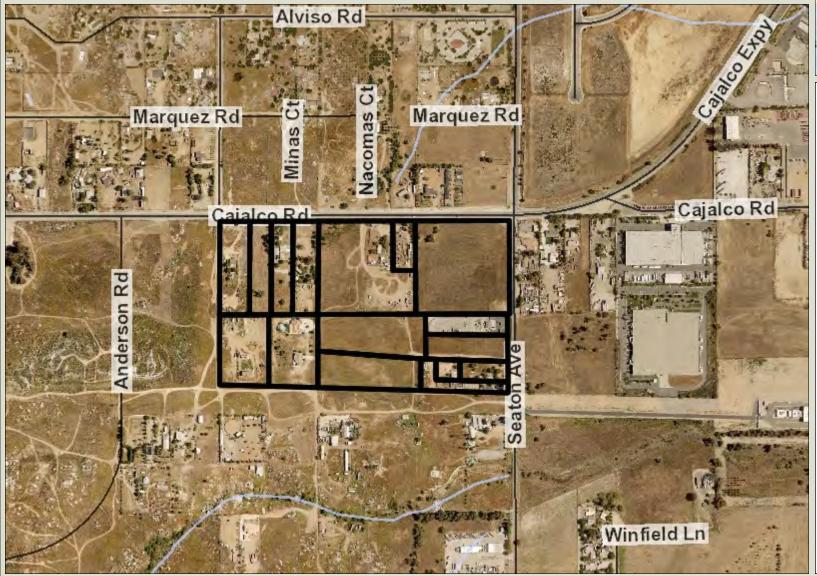
3,079 Feet

REPORT PRINTED ON... 11/14/2023 11:03:55 AM

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Notes

Map My County Map





Legend

County Centerline Names

- **County Centerlines**
- **Blueline Streams**
- City Areas World Street Map





1,539 Feet

IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

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Notes

Map My County Map





Legend

- Blueline Streams
- City Areas World Street Map





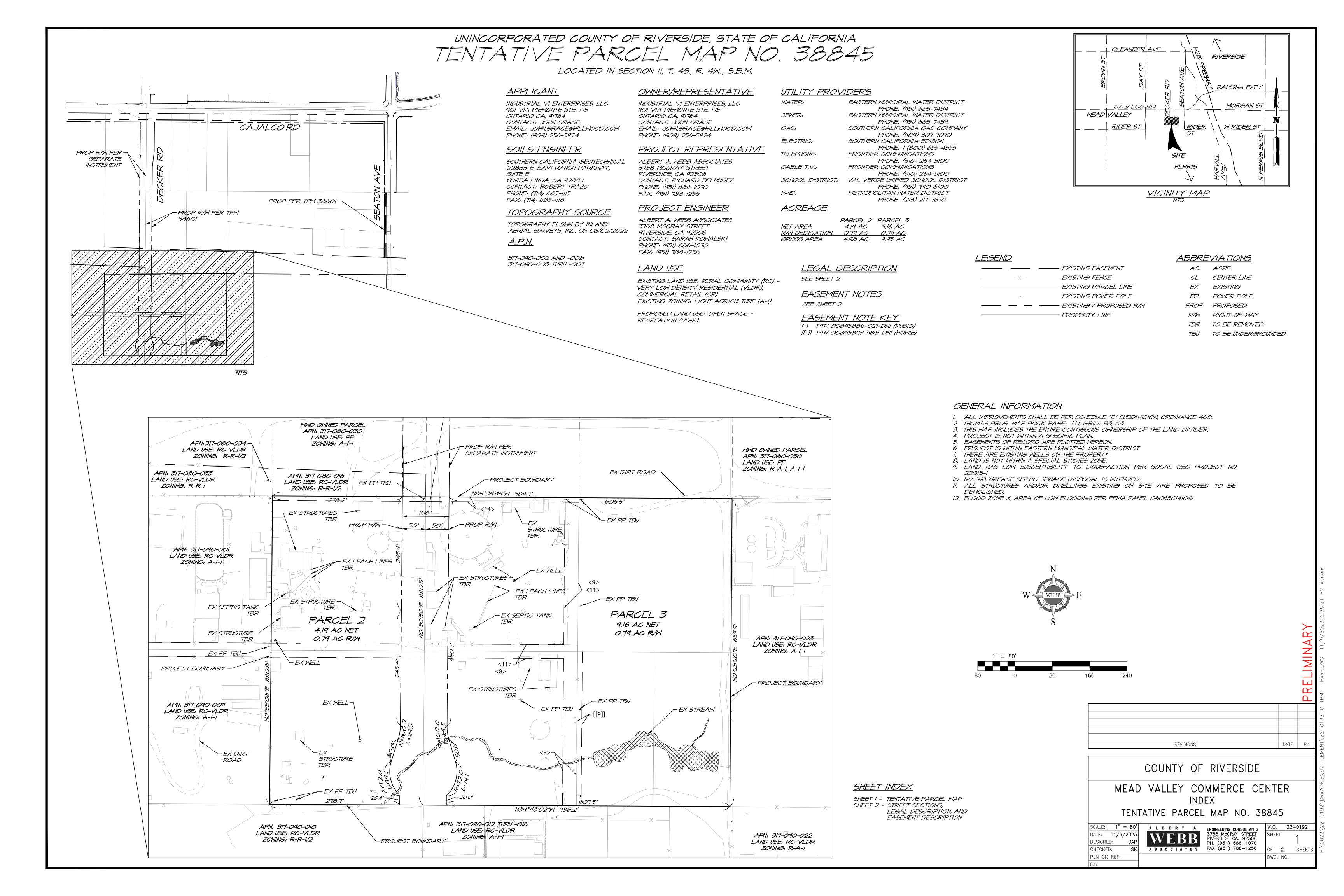
IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

0 3, 6,157 Feet

REPORT PRINTED ON... 11/14/2023 11:03:34 AM

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Notes



APN: 317-090-003, -001 (RUBIO)

PARCEL I:

PARCEL IA: (APN: 317-090-003) THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PARCEL IB:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE NORTH IS FEET OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER; THE SOUTH 15 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER; THE NORTH 15 FEET OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER ALL IN SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

PARCEL IC:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE EAST IS FEET OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER AND THE WEST IT FEET OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER ALL IN SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY DEED RECORDED AUGUST 17, 1933 IN BOOK 134 PAGE 68 OF OFFICIAL RECORDS. [THIS EASEMENT IS OUTSIDE OF THE SUBJECT PROPERTY]

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE SOUTH 30 FEET, EXCEPT THE WEST 200 FEET THEREOF AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

SAID DESCRIPTIONS FOR PARCELS IA, IB, IC AND ID ARE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE NO. 6106, RECORDED SEPTEMBER 15, 2005, AS INSTRUMENT NO. 2005-01623II, OF OFFICIAL RECORDS. [THIS EASEMENT IS OUTSIDE OF THE SUBJECT PROPERTY]

PARCEL 2A: (APN: 317-090-007)

THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PARCEL 2B:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE NORTH IS FEET OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER; THE SOUTH 15 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER; THE SOUTH 15 FEET AND THE EAST 30 FEET OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

PARCEL 2C:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE EAST IS FEET OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER AND THE WEST IT FEET OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER ALL IN SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY DEED RECORDED AVOUST 17, 1933 IN BOOK 134 PAGE 68 OF OFFICIAL RECORDS. [THIS EASEMENT IS OUTSIDE OF THE SUBJECT PROPERTY]

PARCEL 2D:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE SOUTH 30 FEET, EXCEPT THE WEST 200 FEET THEREOF AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

[THIS EASEMENT IS OUTSIDE OF THE SUBJECT PROPERTY]

SAID DESCRIPTIONS FOR PARCELS 2A, 2B, 2C AND 2D ARE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE NO. 5552, RECORDED JANUARY 27, 2004, AS INSTRUMENT NO. 2004-0057021, OF OFFICIAL RECORDS

APN: 317-090-004 (BARTLEY)

THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTH(EAST) I/4 OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, RIVERSIDE COUNTY, CALIFORNIA.

APN: 317-090-005 (CASTRO)

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, S.B.B.&M.

APN: 317-090-006 (HOWIE)

THAT WEST ONE-HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, S.B.B. &M.

EASEMENT NOTES

APN: 317-090-003, -007 (RUBIO)

<9> EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS RESERVED IN A DOCUMENT;

RESERVED BY: LEON I. EVANS, ET AL PURPOSE: ROAD AND PUBLIC UTILITY PURPOSES

RECORDING DATE: SEPTEMBER 17, 1970 RECORDING NO .: 91870, OF OFFICIAL RECORDS

SAID EASEMENT HAS BEEN GRANTED AND/OR RESERVED IN VARIOUS INSTRUMENTS OF RECORD. TO BE QUITCLAIMED.

(II) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS RESERVED IN A DOCUMENT;

RESERVED BY: LEON I. EVANS, ET AL

PURPOSE: ROAD AND PUBLIC UTILITY PURPOSES RECORDING DATE: SEPTEMBER 17, 1970

RECORDING NO.: 91882, OF OFFICIAL RECORDS SAID EASEMENT HAS BEEN GRANTED AND/OR RESERVED IN VARIOUS

INSTRUMENTS OF RECORD. TO BE QUITCLAIMED.

<IA> EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY PURPOSE: ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION

SYSTEMS

RECORDING DATE: JANUARY 12, 2005 RECORDING NO: 2005-0033730, OF OFFICIAL RECORDS TO BE QUITCLAIMED.

APN: 317-090-006 (HOWIE)

[[9]] AN EASEMENT FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:

IN FAVOR OF: SOUTHERN CALIFORNIA EDISON

PURPOSE: PUBLIC UTILITIES RECORDING DATE: AUGUST 27, 2020

RECORDING NO: 2020-0400510, OF OFFICIAL RECORDS

TO BE QUITCLAIMED.

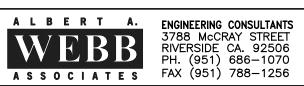
ELY PROP R/W PROP R/W *32'* H PROP PROP SIDE ₹ |*SIDE* PROP AC-WALKID 8 MALKI PAVEMENT PROP CURB-1.5% 1.5% **\$** GUTTER # GUTTER SUB-GRADE DECKER ROAD SECONDARY HIGHNAY

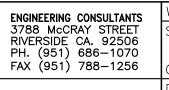
RIV. CO. STD. NO. 94

COUNTY OF RIVERSIDE

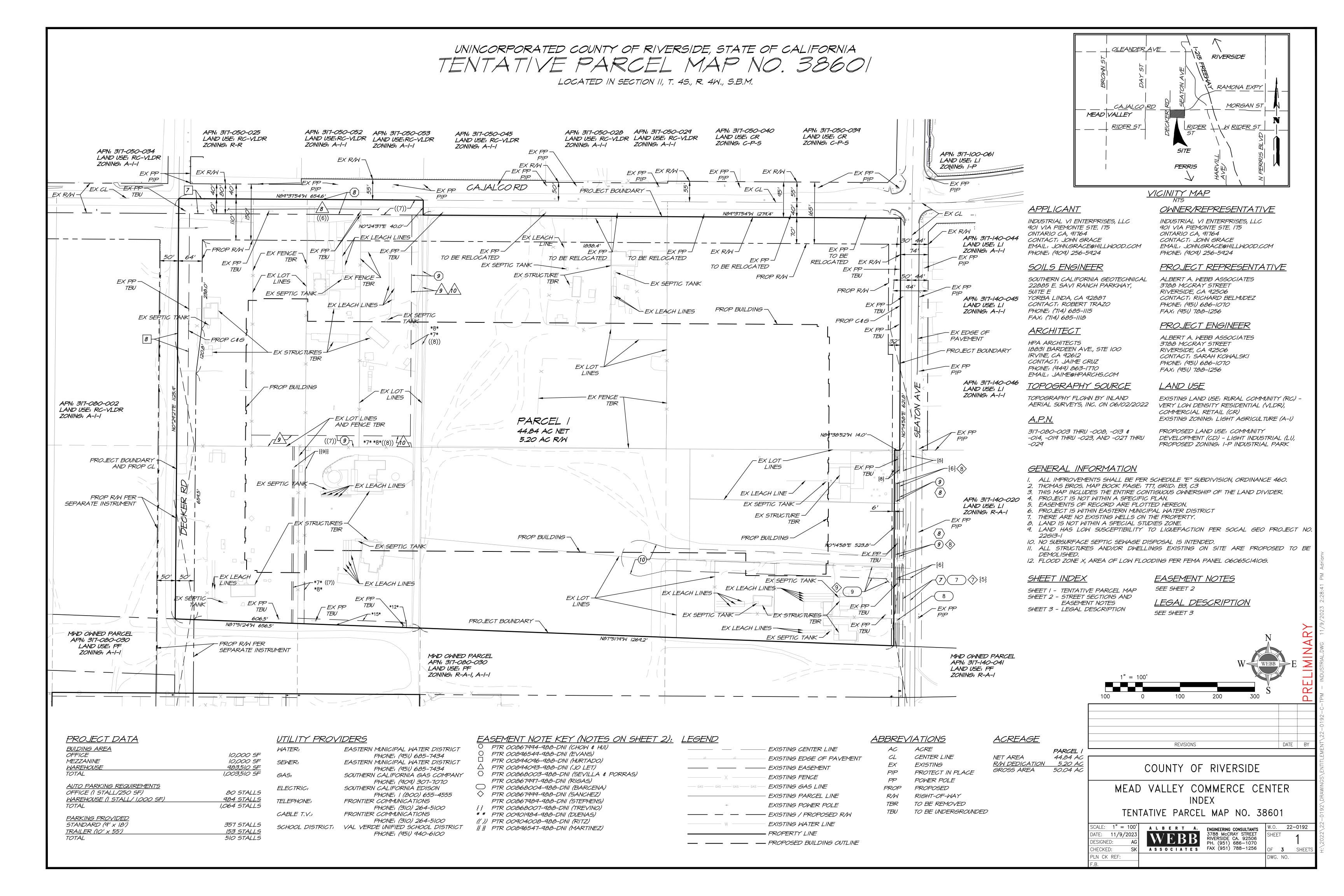
MEAD VALLEY COMMERCE CENTER EASMENT, LEGAL, AND STREET SECTIONS TENTATIVE PARCEL MAP NO. 38845

DATE: 11/9/2023 DESIGNED: CHECKED: PLN CK REF:





W.O. **22-0192** SHEET OF **3** SHEETS DWG. NO.



THERETO AS SET FORTH IN A DOCUMENT:

RECORDING DATE: APRIL 20, 1897

[OUTSIDE OF THE SUBJECT PROPERTY]

PIPELINE

RECORDING NO: BOOK 47, PAGE 362 OF DEEDS

PURPOSE:

ELY PROP R/W PROP R/W 100' *50' 50'* 32' 32' PROP PROP SIDE SIDE I PROP AC | WALK| MALKIO PAVEMENT PROP CURB-1.5% # GUTTER # GUTTER - COMPACTED SUB-GRADE DECKER ROAD SECONDARY HIGHWAY

RIV. CO. STD. NO. 94

NTS

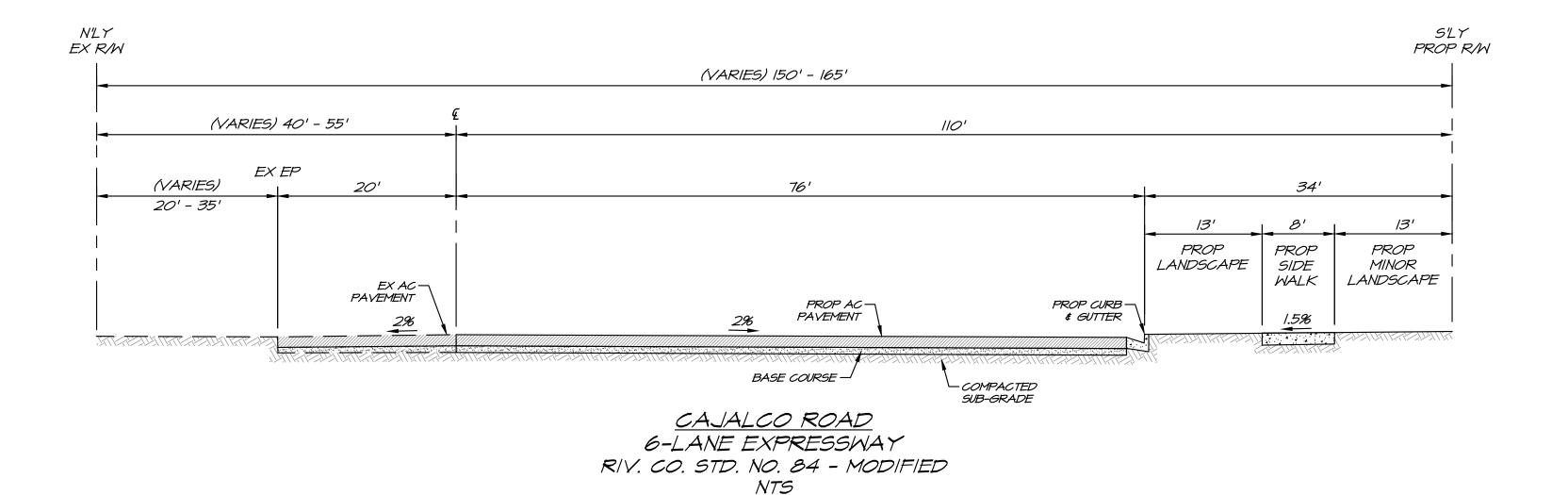
ELY WLY EX R/W PROP R/W (VARIES) 106' - 120' (VARIES) 56' - 70' *50'* (VARIES) 30' - 44' 4' 5' 32' PROP ∜|*SIDE*| 3 8 WALK PAVEMENT T 1.5% ! - PROP CURB & GUTTER CURB & GUTTER PER PPT210133 -BASE COURSE -- COMPACTED SUB-GRADE

> SEATON AVENUE SECONDARY HIGHWAY RIV. CO. STD. NO. 94 NTS

CALIFORNIA WATER AND TELEPHONE COMPANY, A

CORPORATION

PUBLIC UTILITIES



COUNTY OF RIVERSIDE

MEAD VALLEY COMMERCE CENTER EASMENT AND STREET SECTIONS TENTATIVE PARCEL MAP NO. 38601

DATE: **11/9/202**3 DESIGNED: CHECKED: PLN CK REF:

A L B E R T A. ENGINEERING CONSULTANTS A S S O C | A T E S FAX (951) 788-1256

3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070

W.O. **22-0192** SHEET OF **3** SHEET DWG. NO.

APN: 317-080-003 (HURTADO)

THE WESTERLY 200.00 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

APN: 317-080-004 (EVANS)

PARCEL I: THE EAST 144 FEET OF THE WEST 344 OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE SOUTH 30 FEET, EXCEPT THE WEST 344 FEET THEREOF; AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

APN: 317-080-005 (JO LET) PARCEL I:

THE EAST 144 FEET AT THE WEST 488 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4, SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PARCEL 2:

THE SOUTH 30 FEET AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, EXCEPTING THEREFROM THE WEST 488 FEET THEREOF.

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER

APN: 317-080-006 (RITZ)

THE NORTHEAST QUARTER OF THE NORTHMEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

EXCEPTING THEREFROM THE WESTERLY 488 FEET THEREOF.

EXCEPTING ANY MOBILE HOME OR MANUFACTURED HOUSING UNIT AND APPURTENANCES, IF ANY, LOCATED ON SAID LAND.

APN: 317-080-007, 008 (STEPHENS) PARCEL I:

THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY UNITED STATES GOVERNMENT SURVEY.

EXCEPTING THEREFROM THE NORTHERLY 40 FEET ACQUIRED BY THE COUNTY OF RIVERSIDE BY DECREE OF CONDEMNATION HAD IN THE SUPERIOR COURT OF STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF RIVERSIDE, CASE NO. 33459, A CERTIFIED COPY OF SAID DECREE WAS RECORDED FEBRUARY 16, 1943 IN BOOK 569 PAGE 491 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS.

ALSO EXCEPTING THEREFROM THE EAST 150 FEET OF THE NORTH 370 FEET OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION II.

ALSO EXCEPTING THEREFROM THE MOBILE HOME OR MANUFACTURED HOUSING UNIT AND APPURTENANCES, IF ANY, LOCATED ON SAID LAND.

PARCEL 2:

THE EAST 150 FEET OF THE NORTH 310 FEET OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY UNITED STATES GOVERNMENT SURVEY.

EXCEPTING THEREFROM THE NORTHERLY 40 FEET ACQUIRED BY THE COUNTY OF RIVERSIDE BY DECREE OF CONDEMNATION HAD IN THE SUPERIOR COURT OF STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF RIVERSIDE, CASE NO. 33459, A CERTIFIED COPY OF SAID DECREE WAS RECORDED FEBRUARY 16, 1943 IN BOOK 569 PAGE 491 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS.

APN: 317-080-013 (DUENAS) PARCEL I:

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, BY DEED RECORDED AUGUST 17, 1933 IN BOOK 134, PAGE 68 OF OFFICIAL RECORDS.

SAID DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE NO. 5543, RECORDED JANUARY 13, 2004 AS INSTRUMENT NO. 2004-002344T, OF OFFICIAL RECORDS.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE EAST IT FEET OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, BY DEED RECORDED AUGUST 17, 1933 IN BOOK 134 PAGE 68 OF OFFICIAL RECORDS.

PARCEL 3:

PARCEL I:

A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE SOUTH 30 FEET, EXCEPT THE WEST 200 FEET THEREOF AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

APN: 317-080-014 (MARTINEZ)

THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY DEED RECORDED AUGUST 17, 1933 IN BOOK 134, PAGE 68 OF OFFICIAL RECORDS.

SAID LAND IS PURSUANT TO THE CERTIFICATE OF COMPLIANCE NO. 07219 RECORDED MAY 27, 2015 AS INSTRUMENT NO. 2015-0219558, OF OFFICIAL RECORDS.

PARCEL 2: A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE WEST IT FEET OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY DEED RECORDED AUGUST 17, 1933 IN BOOK 134, PAGE 68 OF OFFICIAL RECORDS.

PARCEL 3: A NON-EXCLUSIVE EASEMENT FOR ROAD AND PUBLIC UTILITY PURPOSES OVER THE SOUTH 30 FEET, EXCEPT THE WEST 200 FEET AND THE EAST 30 FEET OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

APN: 317-080-019, 020, 022 (CHOW & HUI)

PARCELS I, 2 AND 4 AND LETTERED LOTS C THROUGH E, OF PARCEL MAP NO. 8592, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 40 PAGE 31 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 317-080-021 (TREVINO)

PARCEL 3 OF PARCEL MAP NO. 8592, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED 12 OCTOBER 1977 AS INSTRUMENT NO. 201660, IN THE OFFICIAL RECORDS OF RIVERSIDE COUNTY, STATE OF CALIFORNIA.

APN: 317-080-023 (RIGAS)

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPTING THE NORTHERLY 40 FEET CONDEMNED BY THE COUNTY OF RIVERSIDE FOR HIGHWAY PURPOSES BY ACTION NO. 33459 IN THE SUPERIOR COURT OF RIVERSIDE COUNTY, CALIFORNIA. RECORDED FEBRUARY 16, 1943 IN BOOK 569 PAGE 491 OF OFFICIAL RECORDS.

ALSO EXCEPTING THE EASTERLY RECTANGULAR 30 FEET AS CONVEYED TO THE COUNTY OF RIVERSIDE BY GRANT DEED RECORDED JANUARY 9, 1978 AS INSTRUMENT NO. 3851, OFFICIAL RECORDS OF SAID COUNTY.

APN: 317-080-027 (BARCENA)

THE EAST 364.00 FEET OF THE NORTH 136.00 FEET OF THE SOUTH 209 FEET OF THE EAST 626 FEET OF THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, LYING NORTHERLY OF THE METROPOLITAN WATER DISTRICT RIGHT OF WAY.

EXCEPTING THEREFROM THE EASTERLY RECTANGULAR 30 FEET THEREOF, CONVEYED TO THE COUNTY OF RIVERSIDE IN THE DEED RECORDED JANUARY 9, 1978, AS INSTRUMENT NO. 3849, OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM THE EASTERLY 44 FEET THEREOF, CONVEYED TO THE COUNTY OF RIVERSIDE IN THE DEED RECORDED APRIL 7, 1978, AS INSTRUMENT NO. 66941, OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM THE MOBILE HOME OR MANUFACTURED HOUSING UNIT AND APPURTENANCES, IF ANY, LOCATED ON SAID LAND.

APN: 317-080-028 (SANCHEZ)

THE SOUTH 209 FEET OF THE EAST 626 FEET OF THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA ACCORDING TO THE OFFICIAL PLAT THEREOF, LYING NORTHERLY OF THE METROPOLITAN WATER DISTRICT RIGHT OF WAY.

EXCEPT THOSE PORTIONS CONVEYED TO THE COUNTY OF RIVERSIDE BY DEEDS RECORDED JANUARY 9, 1978 AS INSTRUMENT NO. 3849 AND APRIL 7, 1978 AS INSTRUMENT NO. 66941, BOTH OF OFFICIAL RECORDS.

ALSO EXCEPT THAT PORTION CONVEYED TO DAN J. BARUNA AND DORTHY Z. BARUNA RECORDED JUNE 20, 1978 AS INSTRUMENT NO. 125771, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM THAT PORTION OF CERTIFICATE OF COMPLIANCE NO. 06150 RECORDED NOVEMBER 14, 2005 AS INSTRUMENT 2005-0941064 AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WESTERLY 160.00 FEET OF THE NORTHERLY 136.00 FEET OF THE EASTERLY 524.00 FEET OF THAT CERTAIN PARCEL OF LAND SHOWN AS "NOT A PART" ON PARCEL MAP NO. 8592 RECORDED IN BOOK 40 PAGE 31 OF PARCEL MAPS. RECORDS OF THE RECORDER OF RIVERSIDE COUNTY, STATE OF CALIFORNIA, LYING WITHIN A PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN.

APN: 317-080-029 (SEVILLA & PORRAS)

THE WESTERLY 160.00 FEET OF THE NORTHERLY 136.00 FEET OF THE EASTERLY 524.00 FEET OF THAT CERTAIN PARCEL OF LAND SHOWN AS "NOT A PART" ON PARCEL MAP NO. 8592 RECORDED IN BOOK 40, PAGE 31 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY, LYING WITHIN A PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION II, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPTING THEREFROM THE MOBILE HOME OR MANUFACTURED HOUSING UNIT AND APPURTENANCES, IF ANY, LOCATED ON SAID LAND.

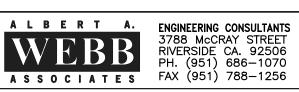
SAID DESCRIPTION IS PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE NO. 6150, RECORDED NOVEMBER 14, 2005, AS INSTRUMENT NO. 2005-0941064, OF OFFICIAL RECORDS.

COUNTY OF RIVERSIDE

MEAD VALLEY COMMERCE CENTER LEGAL

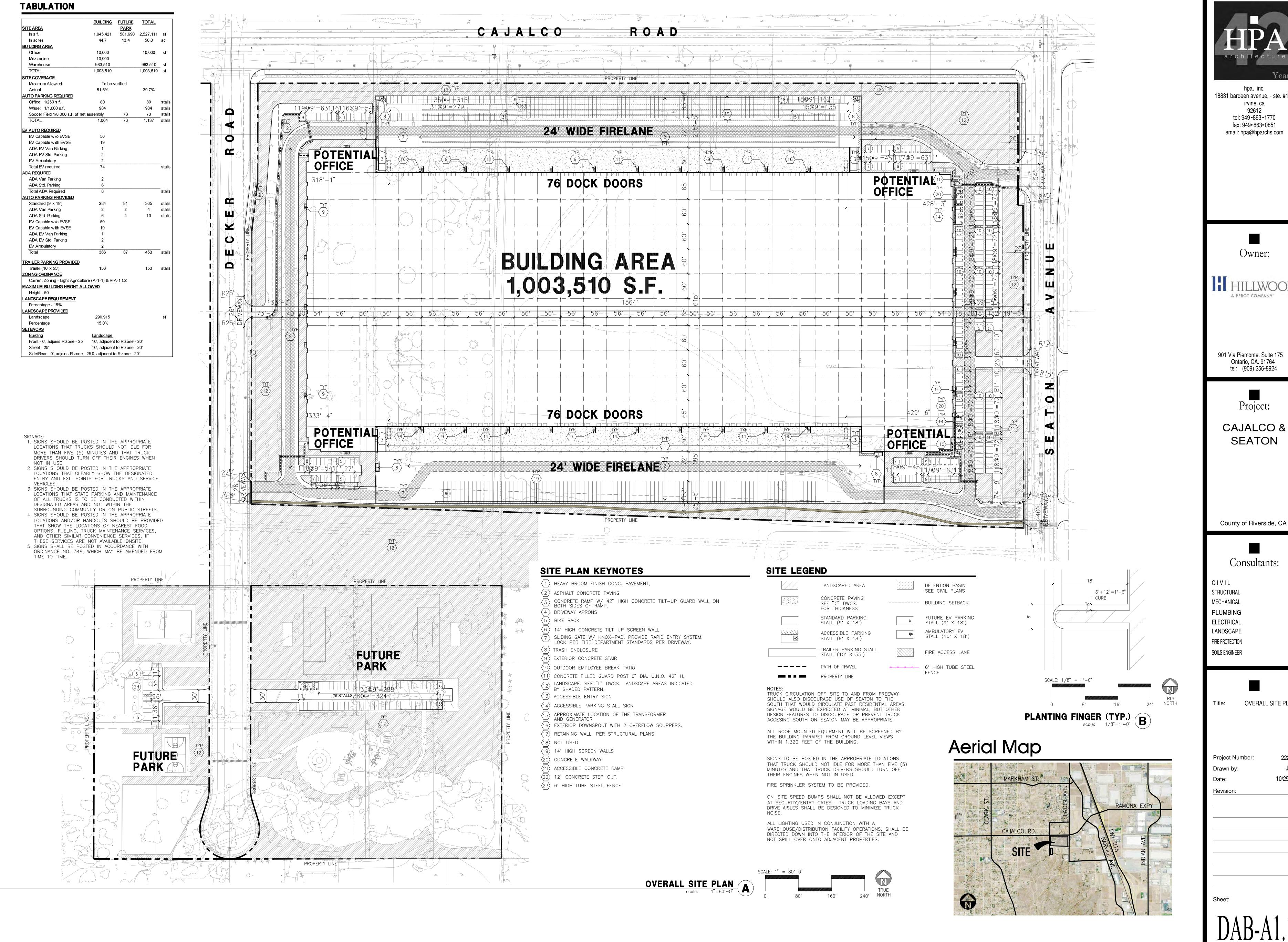
TENTATIVE PARCEL MAP NO. 38601

DATE: 11/9/202 DESIGNED: CHECKED: PLN CK REF:





| W.O. 22-0192 SHEET OF 3 SHEET DWG. NO.

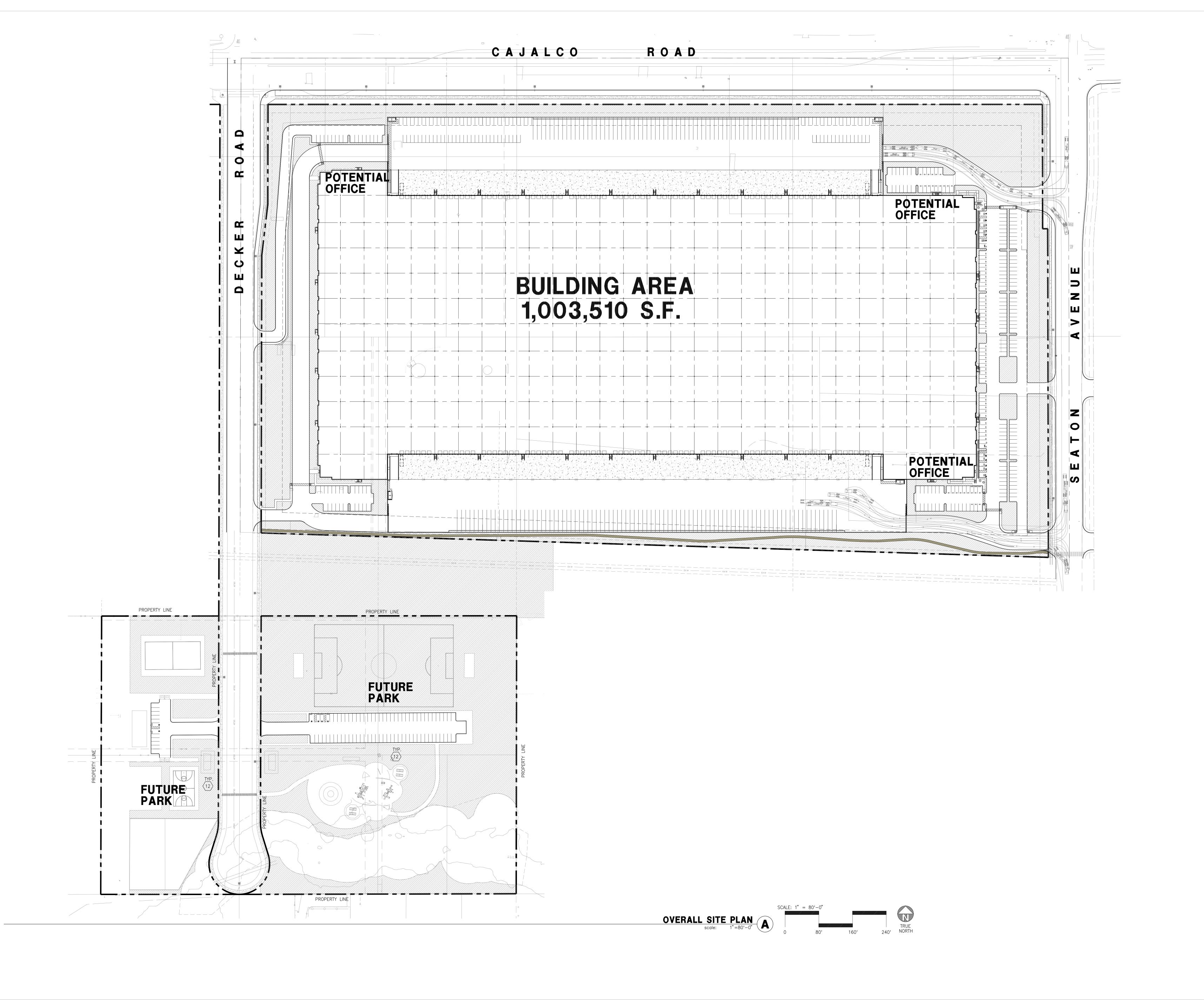




18831 bardeen avenue, - ste. #100

OVERALL SITE PLAN

22279 10/25/23





hpa, inc.
18831 bardeen avenue, - ste. #100
irvine, ca
92612
tel: 949 •863 •1770
fax: 949 • 863 • 0851
email: hpa@hparchs.com





901 Via Piemonte. Suite 175 Ontario, CA. 91764 tel: (909) 256-8924



CAJALCO & SEATON

County of Riverside, CA



Consultants:

CIVIL
STRUCTURAL
MECHANICAL
PLUMBING
ELECTRICAL
LANDSCAPE
FIRE PROTECTION
SOILS ENGINEER

itle:			

: TRUCK TURN

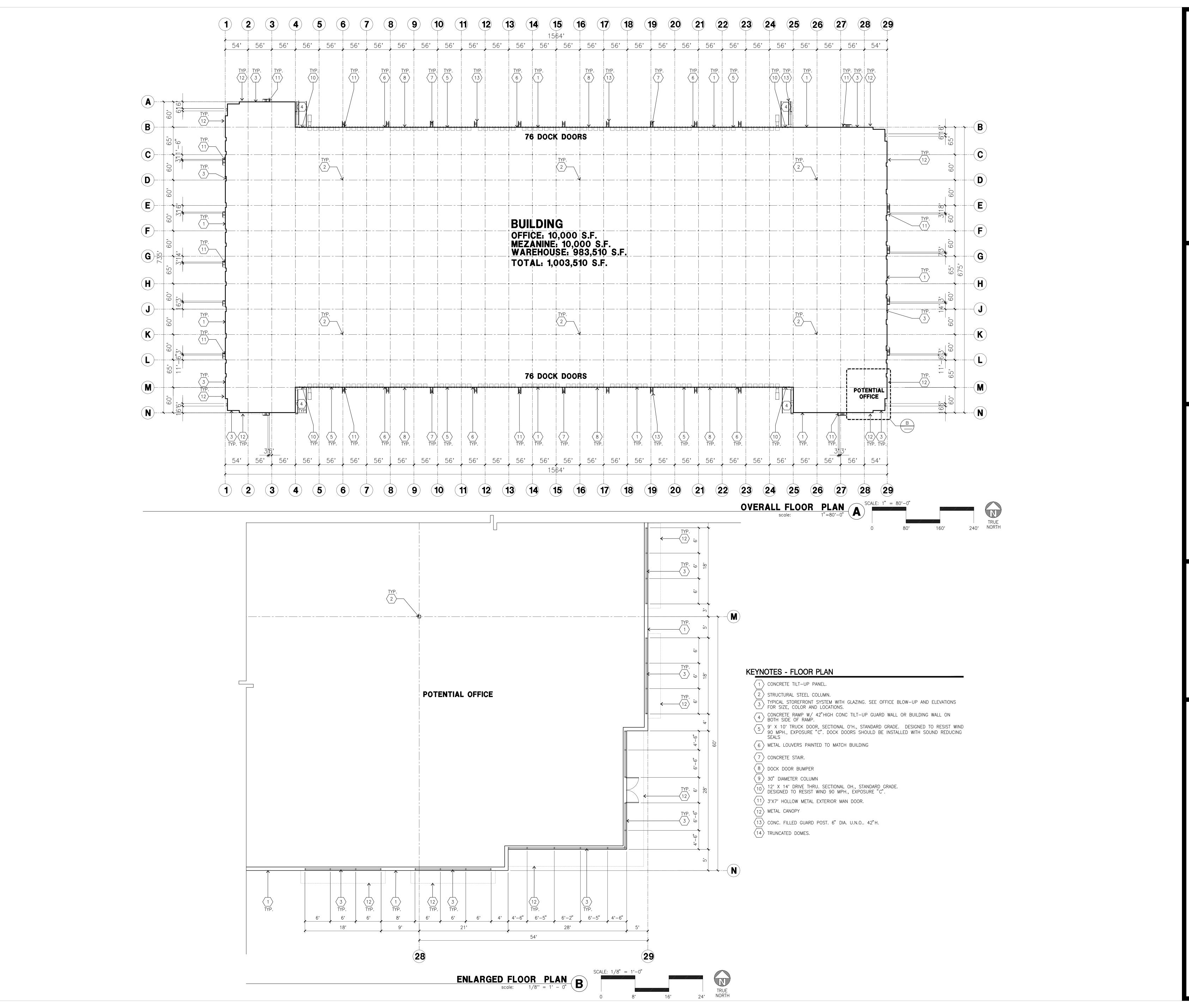
Project Number:

Drawn by:

Date: 10/25/23
Revision:

Sheet:

DAB-A1.1





hpa, inc.
18831 bardeen avenue, - ste. #100
irvine, ca
92612
tel: 949 •863 •1770
fax: 949 • 863 • 0851
email: hpa@hparchs.com





901 Via Piemonte. Suite 175 Ontario, CA. 91764 tel: (909) 256-8924



CAJALCO & SEATON

County of Riverside, CA



Consultants:

CIVIL
STRUCTURAL
MECHANICAL
PLUMBING
ELECTRICAL
LANDSCAPE
FIRE PROTECTION
SOILS ENGINEER



Title: OVERALL FLOOR PLAN

Project Number: 22279

Drawn by: JC

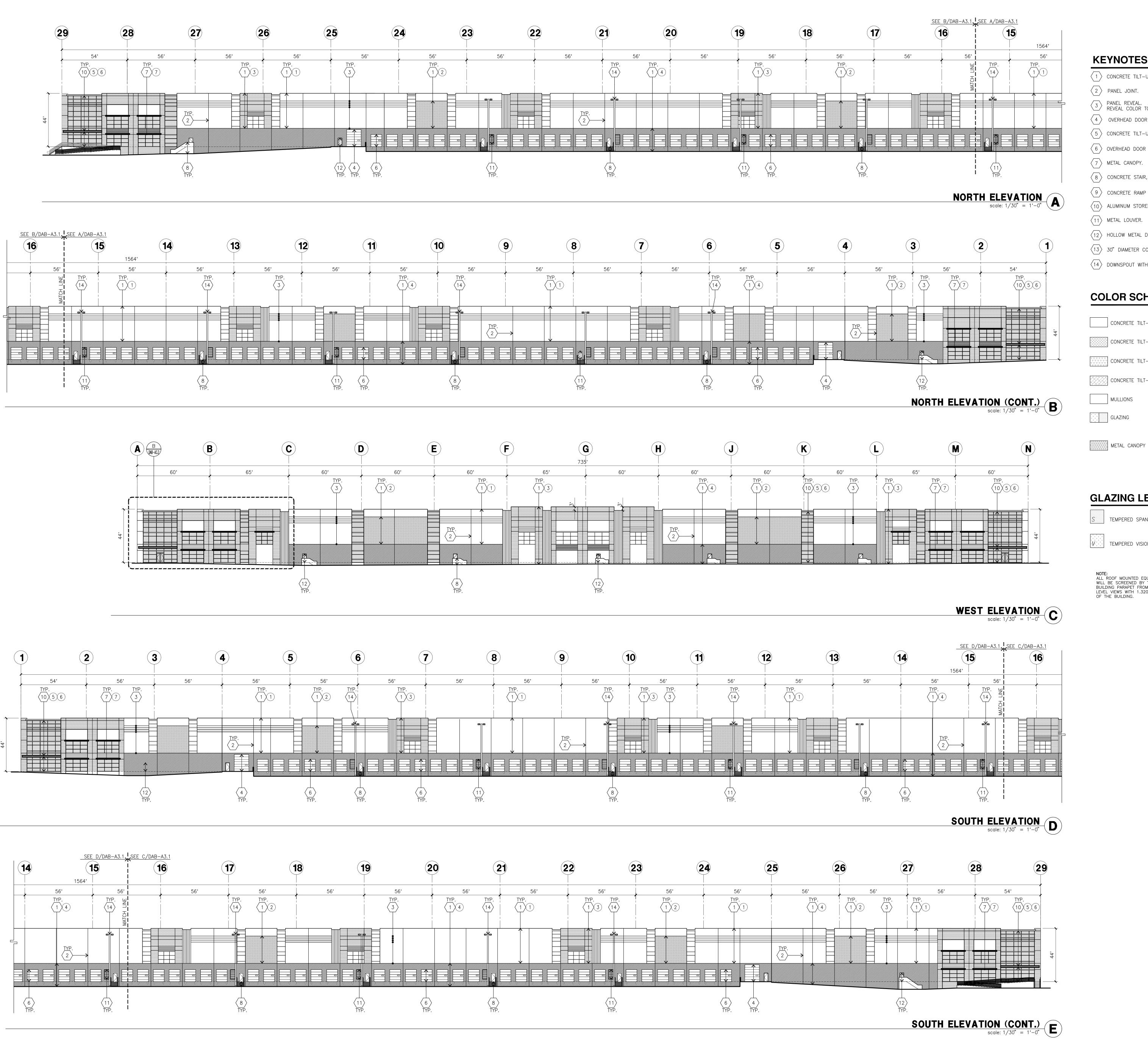
Date: 10/25/23

Revision:

Sheet:

DAB-A2.1

PPT220050



KEYNOTES - ELEVATIONS

- 1 CONCRETE TILT-UP PANEL(PAINTED).
- 2 PANEL JOINT.
- PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
- 4 OVERHEAD DOOR @ DRIVE THRU.
- 5 CONCRETE TILT-UP SCREEN WALL.
- 6 OVERHEAD DOOR @ DOCK HIGH.
- $\overline{7}$ METAL CANOPY.
- 8 CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL.
- 10 ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING.
- (11) METAL LOUVER.
- $\langle 12 \rangle$ HOLLOW METAL DOORS.
- (13) 30" DIAMETER COLUMN.
- 14 DOWNSPOUT WITH SCUPPERS PAINTED TO MATCH BUILDING

COLOR SCHED. - ELEVATIONS

SHERWIN WILLIAMS SW 7064 PASSIVE (236-C1) CONCRETE TILT-UP PANEL COLOR____ SHERWIN WILLIAMS SW 7065

CONCRETE TILT-UP PANEL PAINT BRAND ARGOS (236-C2) SHERWIN WILLIAMS SW 9163 CONCRETE TILT-UP PANEL PAINT BRAND TIN LIZZLE (236-C4) SHERWIN WILLIAMS SW 7067 CONCRETE TILT-UP PANEL COLOR_____CITYSCAPE (236-C5)____ CLEAR ANODIZED MULLIONS GLAZING COLOR GREEN CLEAR GLAZING

> SHERWIN WILLIAMS ACRYLIC LATEX SYSTEMS HIGH GLOSS/HIGH PERFORMANCE
> COLOR___IN_COLOR: SW_7064_PASSIVE

- **GLAZING LEGEND**
- TEMPERED SPANDREL GLASS
- TEMPERED VISION GLASS

NOTE:
ALL ROOF MOUNTED EQUIPMENT
WILL BE SCREENED BY THE
BUILDING PARAPET FROM GROUND
LEVEL VIEWS WITH 1.320 FEET
OF THE BUILDING.



hpa, inc. 18831 bardeen avenue, - ste. #100 irvine, ca 92612 tel: 949 •863 •1770 fax: 949 • 863 • 0851 email: hpa@hparchs.com





901 Via Piemonte. Suite 175 Ontario, CA. 91764 tel: (909) 256-8924



CAJALCO & SEATON

County of Riverside, CA



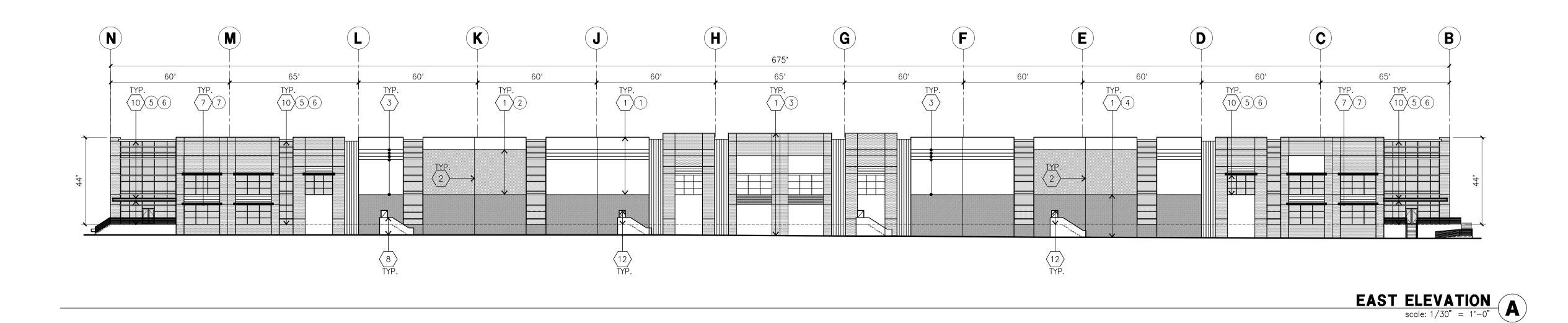
Consultants:

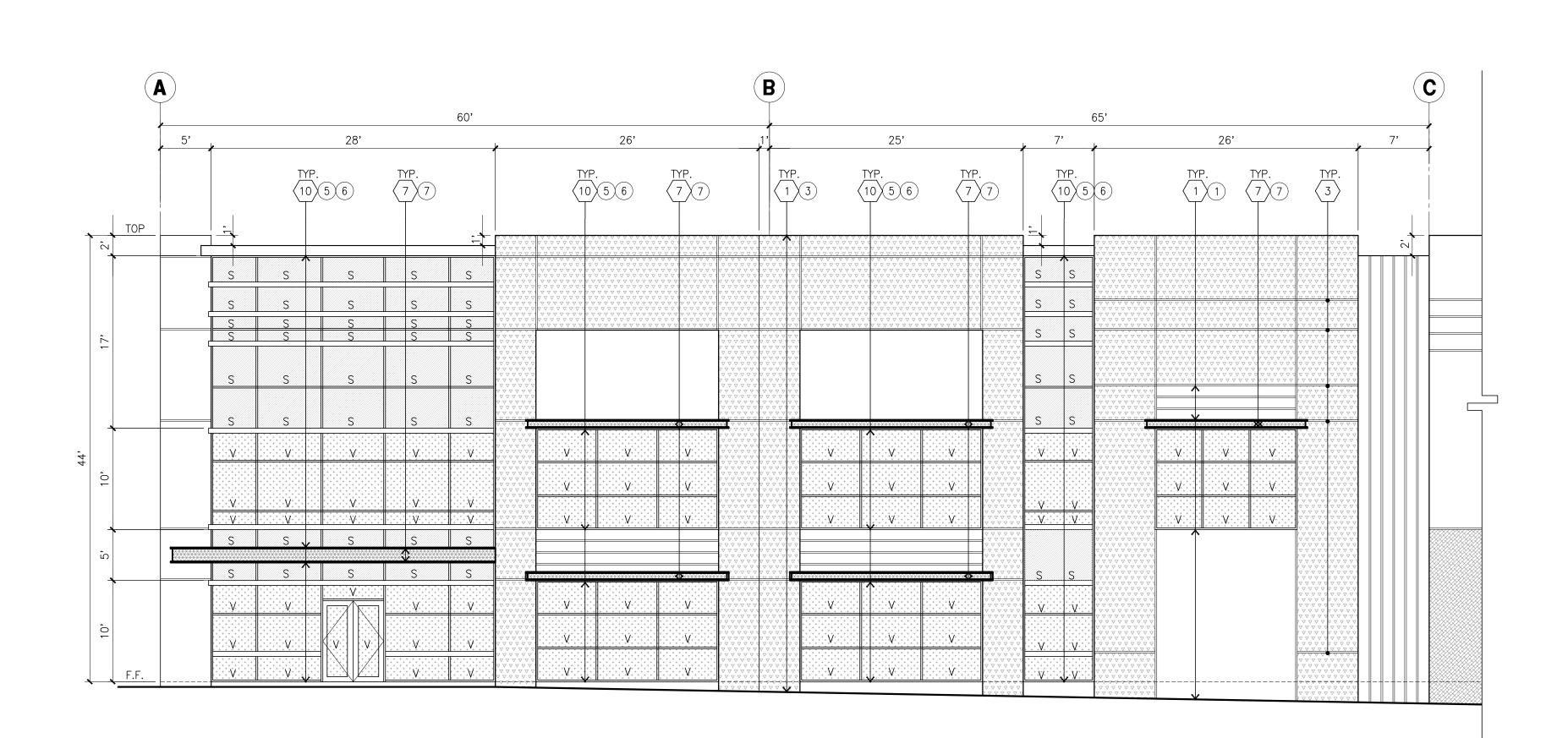
CIVIL STRUCTURAL MECHANICAL PLUMBING ELECTRICAL LANDSCAPE FIRE PROTECTION SOILS ENGINEER

le:	ELEVATIO

22279 Project Number: Drawn by 10/25/23 Date: Revision:

Sheet:





KEYNOTES - ELEVATIONS

1) CONCRETE TILT-UP PANEL(PAINTED).

2 PANEL JOINT.

PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.

4 OVERHEAD DOOR @ DRIVE THRU.

5 CONCRETE TILT-UP SCREEN WALL.

6 OVERHEAD DOOR @ DOCK HIGH.

7 METAL CANOPY.

8 CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL.

9 CONCRETE RAMP

10 ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING.

(11) METAL LOUVER.

 $\langle 12 \rangle$ HOLLOW METAL DOORS.

(13) 30" DIAMETER COLUMN.

(14) DOWNSPOUT WITH SCUPPERS PAINTED TO MATCH BUILDING

COLOR SCHED. - ELEVATIONS

CONCRETE TILT-UP PANEL	COLOR	SHERWIN WILLIAMS SW 7064 PASSIVE (236-C1)
CONCRETE TILT-UP PANEL	PAINT BRAND_	SHERWIN WILLIAMS SW 7065 ARGOS (236-C2)
CONCRETE TILT-UP PANEL	PAINT BRAND_	SHERWIN WILLIAMS SW 9163 TIN LIZZLE (236-C4)
CONCRETE TILT-UP PANEL	COLOR	SHERWIN WILLIAMS SW 7067 CITYSCAPE (236–C5)
MULLIONS	COLOR	CLEAR ANODIZED MULLIONS

GLAZING COLOR_____GREEN CLEAR GLAZING

SHERWIN WILLIAMS ACRYLIC LATEX
SYSTEMS HIGH GLOSS/HIGH PERFORMANCE
COLOR____IN COLOR: SW 7064 PASSIVE METAL CANOPY

GLAZING LEGEND

S TEMPERED SPANDREL GLASS

TEMPERED VISION GLASS

ENLARGED WEST ELEVATION

scale: 1/8" = 1'-0"

NOTE:
ALL ROOF MOUNTED EQUIPMENT
WILL BE SCREENED BY THE
BUILDING PARAPET FROM GROUND
LEVEL VIEWS WITH 1.320 FEET
OF THE BUILDING.





Owner:



901 Via Piemonte. Suite 175 Ontario, CA. 91764 tel: (909) 256-8924



CAJALCO & SEATON

County of Riverside, CA



Consultants: CIVIL STRUCTURAL

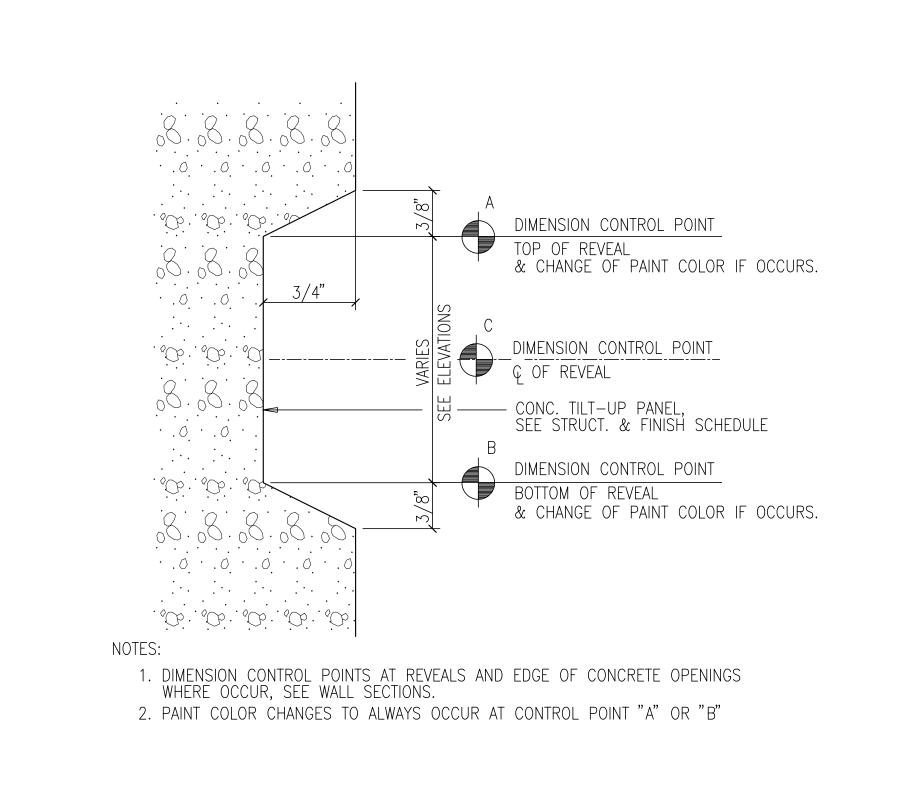
MECHANICAL PLUMBING ELECTRICAL LANDSCAPE FIRE PROTECTION SOILS ENGINEER

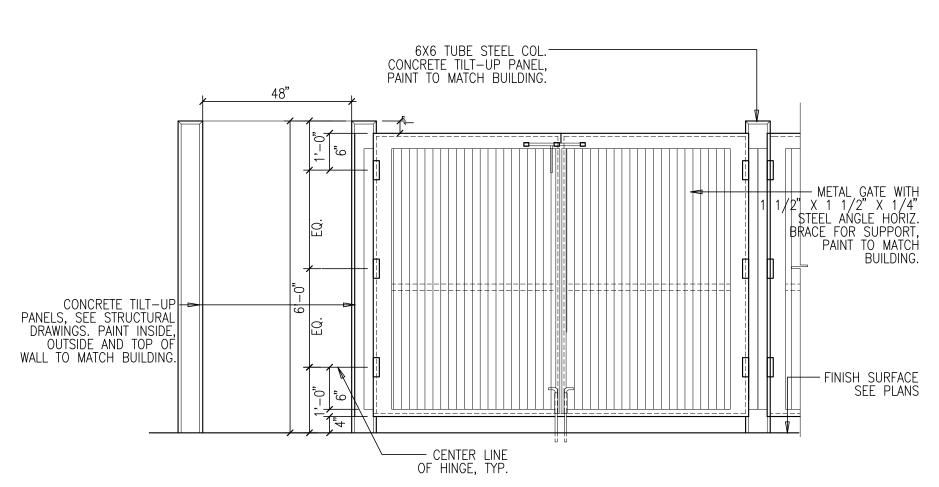


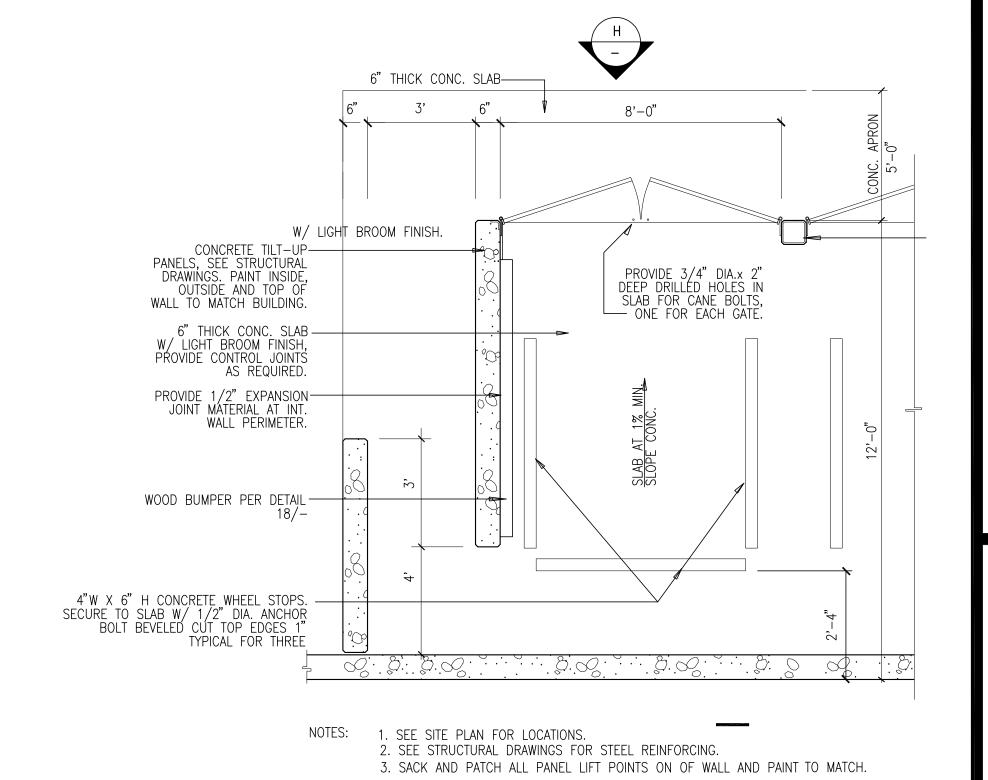
ELEVATIONS Title:

Project Number: 22279 Drawn by: 10/25/23 Date:

Revision:



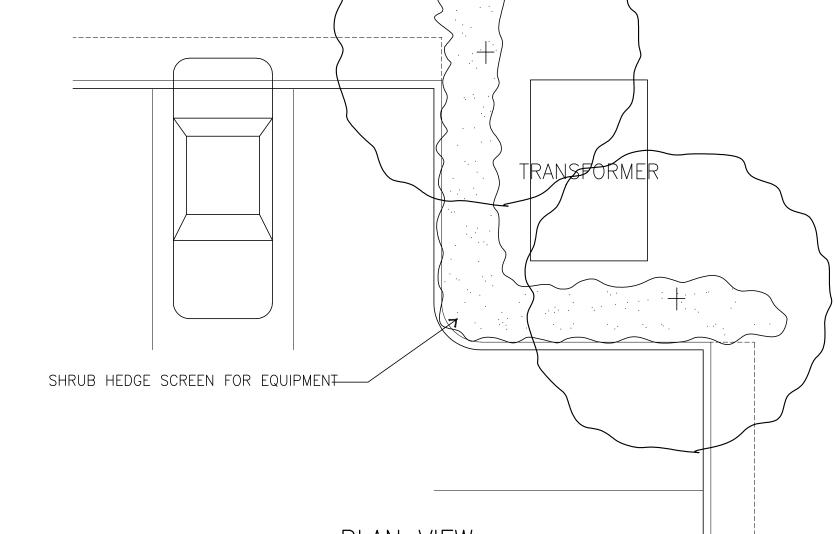




TRASH ENCLOSURE PLAN scale: 1/8"=1'-0"

TYPICAL CONCRETE REVEAL scale: N.T.S.

TRASH ENCLOSURE GATE - ELEVATION scale: 1/8"=1'-0"



LANDSCAPE LANDSCAPE OVERHANG AREA (VARIES) ELEVATION

GROUND MOUNTED EQUIPMENT SCREENING, TYP.

scale: N.T.S.

PLUMBING ELECTRICAL LANDSCAPE FIRE PROTECTION **SOILS ENGINEER**

CIVIL

STRUCTURAL

MECHANICAL

Title: SCREEN WALL ELEVATIONS

hpa, inc. 18831 bardeen avenue, - ste. #100 irvine, ca 92612

tel: 949 ·863 ·1770

fax: 949 · 863 · 0851

email: hpa@hparchs.com

Owner:

A PEROT COMPANY

901 Via Piemonte. Suite 175 Ontario, CA. 91764 tel: (909) 256-8924

Project:

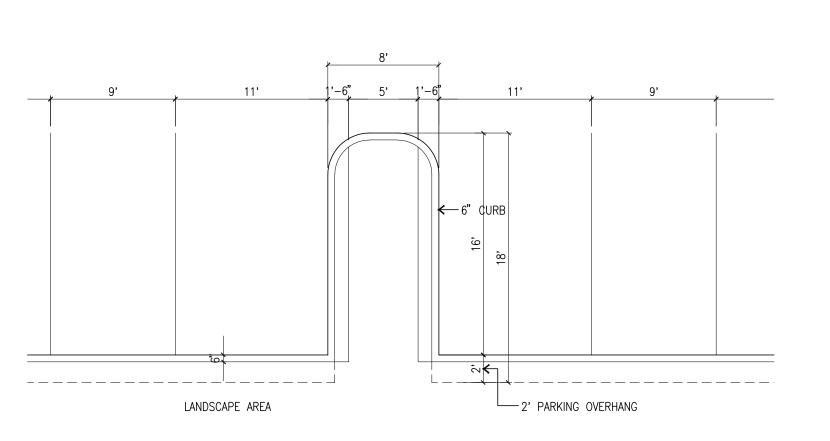
CAJALCO &

SEATON

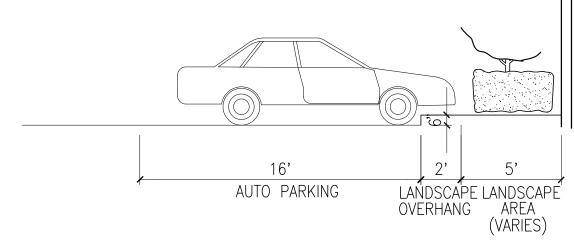
County of Riverside, CA

Consultants:

22279 Drawn by: 10/25/23 Date: Revision:



TYPICAL PARKING SECTION W/ 2' OVERHANG scale: N.T.S.



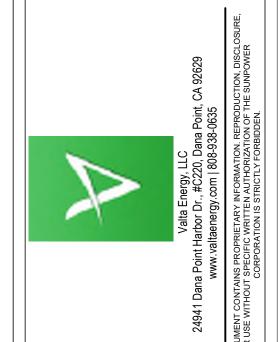
TYPICAL PARKING SECTION W/ 2' OVERHANG scale: N.T.S.

PLAN VIEW



35'x86'



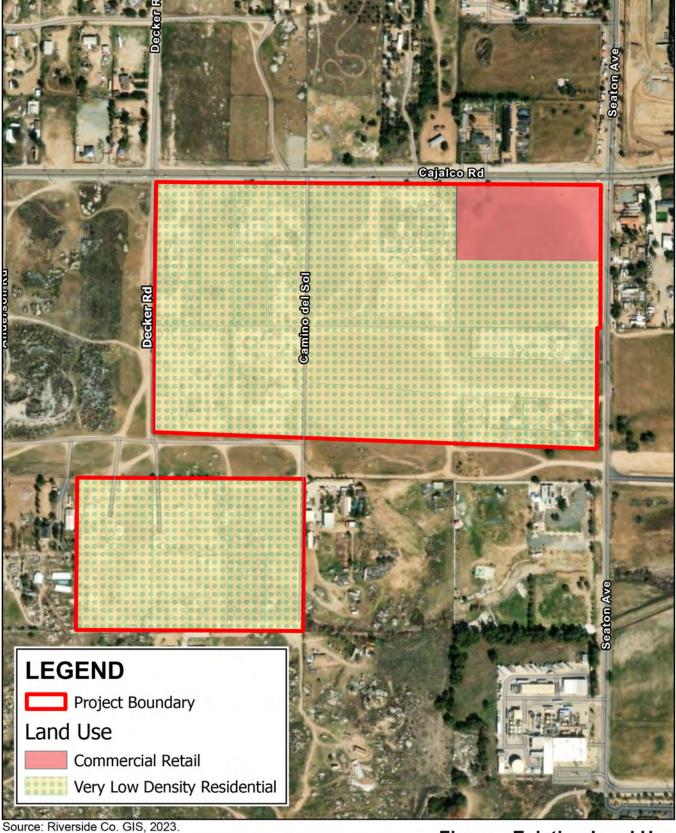


No. Description Date

Hillwood Project 22775 Cajalco Rd Perris, CA 92570

DATE:

E101



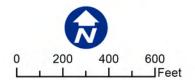


Figure - Existing Land Use Hillwood Seaton Entitlement

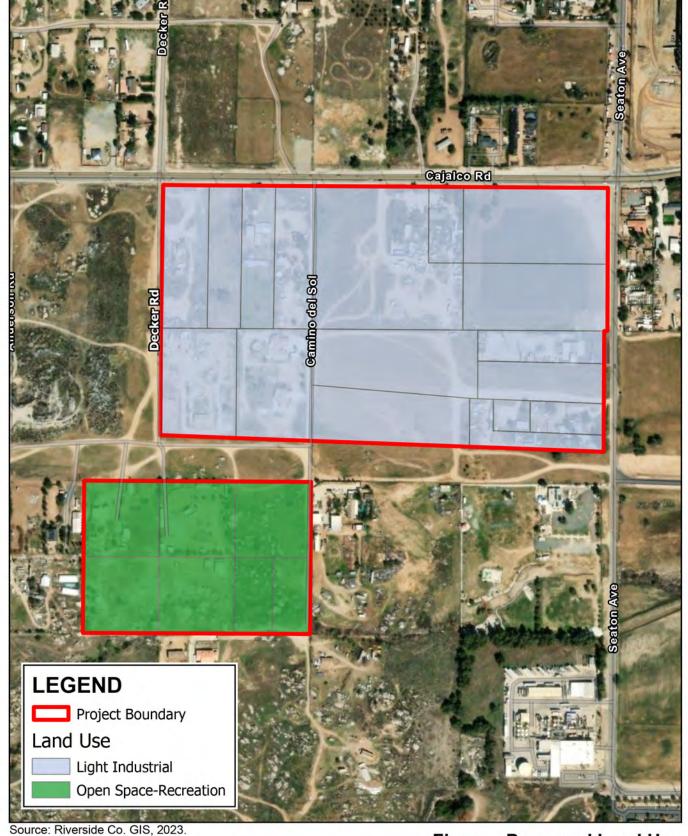


Figure - Proposed Land Use

Hillwood Seaton Entitlement



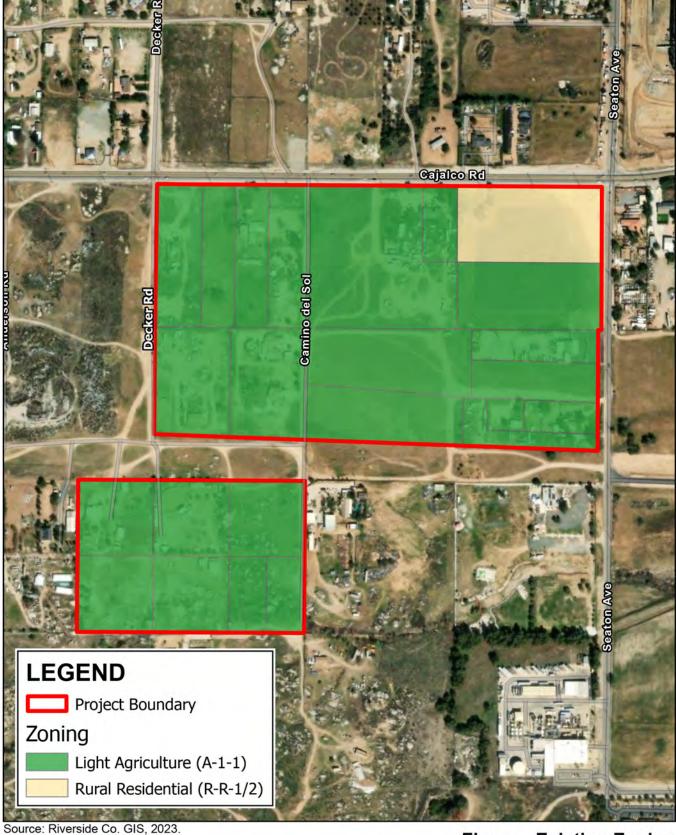


Figure - Existing Zoning
Hillwood Seaton Entitlement

LEGEND Project Boundary Zoning Industrial Park (I-P) Light Agriculture (A-1-1) Source: Riverside Co. GIS, 2023.







Technical Memorandum

To: Joshua Leite, Development Manager From: Nick Johnson, Johnson Aviation, Inc.

Date: November 17, 2023

Subject: Solar Glare Analysis - Solar Photovoltaic (PV) Installation, Cajalco & Seaton Project with Snack

Shack Addition

A. Findings

The findings of this Solar Glare Analysis are that the Proposed Project <u>PASSES</u> the FAA's recommended solar glare tests and <u>PASSES</u> these same tests for four critical flight paths required by the March Air Reserve Base. This Technical Memorandum outlines the study of the potential solar PV Project and substantiates these findings.

B. Introduction

The purpose of this technical memorandum is to assess the airport compatibility of a potential solar PV installation on the roof of the Cajalco & Seaton Project ("Project") with the addition of a small rooftop solar PV on a proposed "snack shack" southwest of the industrial building. The Project site is located south of Cajalco Road, west of Seaton Avenue, and east of Decker Road, within the March Air Reserve Base (March ARB) airport influence area (AIA) (See Figure 1). The analysis and findings of this memo are intended for review and acceptance by the County, Riverside County Airport Land Use Commission (ALUC) and the March ARB staff.





C. Project Description

Industrial VI Enterprises, LLC, the Project Owner, is planning to develop a roof-top solar PV installation on the Project site. The building is planned for a total of 1,003,510 square feet. The potential solar PV

installation is studied to cover approximately 300,000 square feet using 15,036 modules over the entire building roof area (See Figure 2). An additional park area is planned as part of the Project site to the southwest of the industrial building (See Figure 3). The proposed snack shack structure on the western side of the park site is planned to accommodate a rooftop solar PV array with approximately 11 kWh generating capacity (See Figure 4).

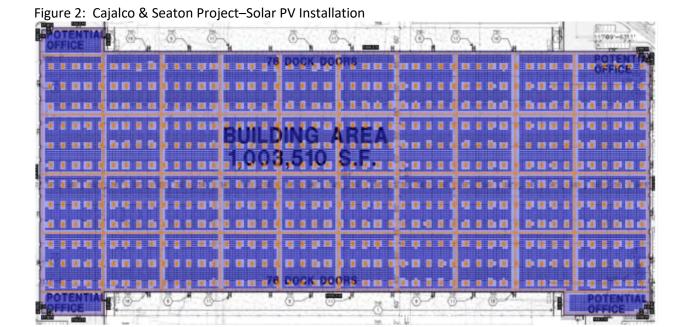


Figure 3: Project Site with Park Area

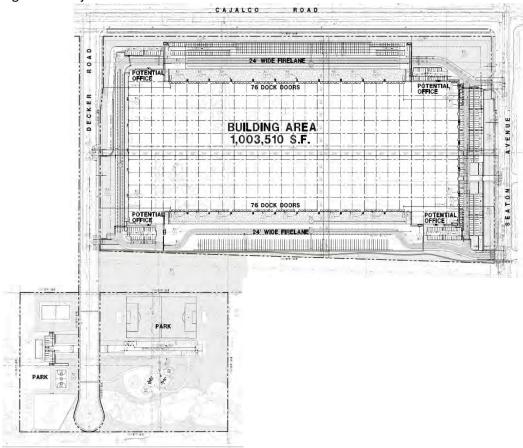
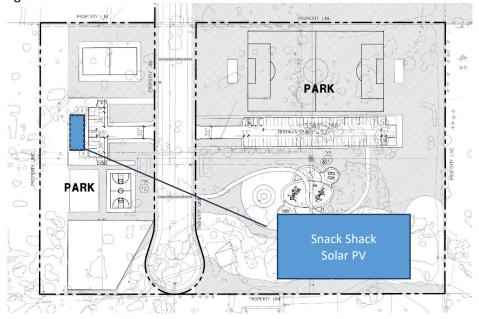


Figure 4: Park Site with Snack Shack Solar PV Addition



Technical Memorandum

Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition

November 17, 2023

Page 4 of 11

D. Standard of Review

This study and its findings have been prepared consistent with the Federal Aviation Administration's (FAA) policy to eliminate hazards to air navigation that may arise as the result of implementing solar energy facilities on and near airports. The FAA adopted an Interim Policy¹ for Solar PV project review in 2013 and completed a final solar glare policy in 2021². In both the 2013 Interim Policy and the 2021 Final Policy, off-airport solar arrays are not required to meet the FAA's policies, but they are strongly encouraged to consider the requirements of this policy guidance when siting systems. Neither the FAA nor the US Department of Defense (DOD) control land use off airport or base property. Both entities encourage collaboration with local land use jurisdictions like the ALUC and the City.

As solar PV was being implemented on and near airports in recent years, the FAA was finding that solar PV reflections of sunlight glint and glare were affecting pilots' vision, particularly on final approach to runways, and was also impacting some air traffic controllers' vision when controlling aircraft near airports. In conjunction with Sandia National Laboratories, the FAA developed a computer analysis tool to measure the potential impact of reflected glint and glare from Solar PV installations. The analysis of this impact is achieved through use of the Solar Glare Hazard Assessment Tool (SGHAT). At the time of the Interim Policy, Sandia Labs produced the tool to meet the analysis requirement. Since then, Sandia Labs has licensed the tool to other providers to sell commercially for solar glare analysis. ForgeSolar licensed the SGHAT tool and incorporated its software into their Glare Analysis tool. Johnson Aviation, Inc. uses the ForgeSolar Glare Analysis tool under subscription license from Sims Industries d/b/a ForgeSolar.

The following is the Standard for Measuring Ocular Impact from the FAA's 2013 Interim Policy:

Standard for Measuring Ocular Impact

FAA adopts the Solar Glare Hazard Analysis Plot as the standard for measuring the ocular impact of any proposed solar energy system on a federally obligated airport. To obtain FAA approval to revise an airport layout plan to depict a solar installation and/or a "no objection" to a Notice of Proposed Construction Form 7460-1, the airport sponsor will be required to demonstrate that the proposed solar energy system meets the following standards:

- No potential for glint or glare in the existing or planned Airport Traffic Control Tower (ATCT)
 cab; and
- 2. No potential for glare or "low potential for after-image" along the final approach path for any existing landing threshold or future landing thresholds (including any planned interim phases of the landing thresholds) as shown on the current FAA-approved Airport Layout Plan (ALP). The final approach path is defined as two (2) miles from fifty (50) feet above the landing threshold using a standard three (3) degree glidepath.
- 3. Ocular impact must be analyzed over the entire calendar year in one (1) minute intervals from when the sun rises above the horizon until the sun sets below the horizon.

¹ Background on the Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports, Federal Register, October 23, 2013.

² Federal Aviation Administration Policy: Review of Solar Energy System Projects on Federally-Obligated Airports, 86 Fed. Reg. 25801 (May 11, 2021), https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated

Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 5 of 11

After significant additional study of the issue, the FAA concluded in its final 2021 Policy that less restrictive analysis can achieve the same goals for limiting solar PV glare. The following are the revised FAA 2021 Policy limitations:

This policy does not apply to:

- 1. Solar energy systems on airports that do not have an ATCT,
- 2. Airports that are not federally-obligated, or
- 3. Solar energy systems not located on airport property.

Though this policy does not apply to proponents of solar energy systems located off airport property, they are encouraged to consider ocular impact for proposed systems in proximity to airports with ATCTs. In these cases, solar energy system proponents should coordinate with the local airport sponsor.

In addition to the FAA's standards for runway final approach paths and air traffic control tower visibility, the March ARB staff in conjunction with the Riverside County ALUC staff have established a series of air traffic patterns for the two runways located at the Base. Their concern is to ensure that land uses around the base are compatible with its air operations and that solar PV installations will not create a hazard to air navigation as a result of reflected sunlight and the associated potential glare. March ARB staff have provided four sets of geographic coordinates to define the standard traffic patterns listed below:

- FAA 2013 Policy Review (See Attachment A-1)
- FAA 2021 Policy Review (See Attachment A-2)
- Runway 12/30 General Aviation Traffic Pattern (See Attachment B)
- Runway 14/32 General Aviation Traffic Pattern (See Attachment C)
- Runway 14/32 C-17/KC-135 Traffic Pattern (See Attachment D)
- Runway 14/32 Overhead Traffic Pattern (See Attachment E)

E. Solar Glare Analysis Reports

The following pages of this Technical Memorandum provide the solar glare analysis reports for each of the suggested and required studies. The FAA standard study of the final approach paths to the runway ends and the Air Traffic Control Tower analysis is included in each individual report. The six reports are grouped by the flight path studies required by the March ARB and ALUC staff using the SGHAT program.

Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 6 of 11

> Attachment A-1 2013 FAA Policy Review



FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-All Final Approaches

Analysis conducted by Nick Johnson (nick.johnson@johnson-aviation.com) at 14:32 on 17 Nov, 2023.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile flight path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minute

• Ocular transmission coefficient: 0.5

• Pupil diameter: 0.002 meters

• Eye focal length: 0.017 meters

• Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at https://www.federalregister.gov/d/2013-24729



SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m^2

Time interval: 1 min Ocular transmission coefficient: 0.5

Pupil diameter: 0.002 m Eye focal length: 0.017 m Sun subtended angle: 9.3

mrad

Site Config ID: 101349.17664

Methodology: V2



PV Array(s)

Name: Rooftop Solar PV

Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass without AR coating

 $\textbf{Reflectivity} \hbox{:}\ Vary\ with\ sun$

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.262368	1580.00	50.00	1630.00
5	33.834611	-117.262366	1580.00	50.00	1630.00
6	33.834609	-117.263094	1580.00	50.00	1630.00
7	33.834774	-117.263094	1580.00	50.00	1630.00
8	33.834774	-117.266977	1580.00	50.00	1630.00
9	33.834611	-117.266977	1580.00	50.00	1630.00
10	33.834611	-117.267518	1580.00	50.00	1630.00



Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833111	-117.268950	1603.00	25.00	1628.00
2	33.833112	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00

Flight Path Receptor(s)

Name: RWY 12 Final
Description: None
Threshold height: 50 ft
Direction: 135.0°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890258	-117.260681	1500.00	50.00	1550.00
Two-mile	33.898508	-117.270608	1500.00	1300.00	2800.00



Name: RWY 14 Final Description: None Threshold height: 50 ft Direction: 149.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	1500.00	3000.00

Name: RWY 30 Final Description: None Threshold height: 50 ft Direction: 315.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884319	-117.253536	1500.00	50.00	1550.00
Two-mile	33.876069	-117.243611	1500.00	1300.00	2800.00

Name: RWY 32 Final Description: None Threshold height: 50 ft Direction: 329.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	1500.00	3000.00



Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt	Orient	"Green" Glare	"Yellow" Glare	Energy
	(°)	(°)	min	min	kWh
Rooftop Solar PV	10.0	180.0	0	0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
RWY 12 Final	0	0
RWY 14 Final	0	0
RWY 30 Final	0	0
RWY 32 Final	0	0
1-ATCT	0	0

Results for: Rooftop Solar PV

Receptor	Green Glare (min)	Yellow Glare (min)
RWY 12 Final	0	0
RWY 14 Final	0	0
RWY 30 Final	0	0
RWY 32 Final	0	0
1-ATCT	0	0

Flight Path: RWY 12 Final

0 minutes of yellow glare 0 minutes of green glare

Flight Path: RWY 14 Final

0 minutes of yellow glare 0 minutes of green glare

Flight Path: RWY 30 Final

0 minutes of yellow glare 0 minutes of green glare



Flight Path: RWY 32 Final

0 minutes of yellow glare0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare 0 minutes of green glare

Results for: Snack Shack Solar PV Addition

Receptor	Green Glare (min)	Yellow Glare (min)
RWY 12 Final	0	0
RWY 14 Final	0	0
RWY 30 Final	0	0
RWY 32 Final	0	0
1-ATCT	0	0

Flight Path: RWY 12 Final

0 minutes of yellow glare0 minutes of green glare

Flight Path: RWY 14 Final

0 minutes of yellow glare 0 minutes of green glare

Flight Path: RWY 30 Final

0 minutes of yellow glare 0 minutes of green glare

Flight Path: RWY 32 Final

0 minutes of yellow glare 0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare 0 minutes of green glare



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to V1 algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

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Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 7 of 11

> Attachment A-2 2021 FAA Policy Review



FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-All Final Approaches

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Site ID 101349.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Glare Policy Adherence

The following table estimates the policy adherence of this glare analysis according to the 2021 U.S. Federal Aviation Administration Policy:

Review of Solar Energy System Projects on Federally-Obligated Airports

This policy may require the following criteria be met for solar energy systems on airport property:

- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- $\bullet\,$ Default analysis and observer characteristics, including 1-minute time step.

ForgeSolar is not affiliated with the U.S. FAA and does not represent or speak officially for the U.S. FAA. ForgeSolar cannot approve or deny projects - results are informational only. Contact the relevant airport and FAA district office for information on policy and requirements.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

The referenced policy can be read at https://www.federalregister.gov/d/2021-09862



Component Data

This report includes results for PV arrays and Observation Point ("OP") receptors marked as ATCTs. Components that are not pertinent to the policy, such as routes, flight paths, and vertical surfaces, are excluded.

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.262368	1580.00	50.00	1630.00
5	33.834611	-117.262366	1580.00	50.00	1630.00
6	33.834609	-117.263094	1580.00	50.00	1630.00
7	33.834774	-117.263094	1580.00	50.00	1630.00
8	33.834774	-117.266977	1580.00	50.00	1630.00
9	33.834611	-117.266977	1580.00	50.00	1630.00
10	33.834611	-117.267518	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833111	-117.268950	1603.00	25.00	1628.00
2	33.833112	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Observation Point ATCT Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Ye	llow Glare	Energy
	0	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	0	0.0	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
1-ATCT	0	0.0	0	0.0	

PV: Rooftop Solar PV

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
1-ATCT	0	0.0	0	0.0

Rooftop Solar PV and 1-ATCT

Receptor type: ATCT Observation Point **No glare found**

PV: Snack Shack Solar PV Addition

Receptor	Annual Gr	Annual Green Glare		llow Glare
	min	hr	min	hr
1-ATCT	0	0.0	0	0.0

Snack Shack Solar PV Addition

and 1-ATCT

Receptor type: ATCT Observation Point **No glare found**



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minute
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 meters
Eye focal length: 0.017 meters

• Sun subtended angle: 9.3 milliradians

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Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 8 of 11

Attachment B
March ARB Runway 12/30 General Aviation Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB Runway 12-30 GA Analysis

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101354.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	o	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	0	0.0	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0.0	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 12 GA Pattern Route	0	0.0	0	0.0
RWY 30 GA Pattern Route	0	0.0	0	0.0
RWY 12 Final	0	0.0	0	0.0
RWY 30 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.262368	1580.00	50.00	1630.00
5	33.834611	-117.262366	1580.00	50.00	1630.00
6	33.834609	-117.263094	1580.00	50.00	1630.00
7	33.834774	-117.263094	1580.00	50.00	1630.00
8	33.834774	-117.266977	1580.00	50.00	1630.00
9	33.834611	-117.266977	1580.00	50.00	1630.00
10	33.834611	-117.267518	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0° Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833120	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 12 GA Pattern Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.884319	-117.253536	1500.00	50.00	1550.00
2	33.876069	-117.243611	1500.00	1300.00	2800.00
3	33.876081	-117.235119	1500.00	1300.00	2800.00
4	33.880814	-117.229467	1500.00	1300.00	2800.00
5	33.887897	-117.229483	1500.00	1300.00	2800.00
6	33.910333	-117.256469	1500.00	1300.00	2800.00
7	33.910322	-117.264967	1500.00	1300.00	2800.00
8	33.905592	-117.270622	1500.00	1300.00	2800.00
9	33.898508	-117.270608	1500.00	1300.00	2800.00
10	33.890258	-117.260681	1500.00	50.00	1550.00

Name: RWY 30 GA Pattern Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.890258	-117.260681	1500.00	50.00	1550.00
2	33.898508	-117.270608	1500.00	1300.00	2800.00
3	33.905592	-117.270622	1500.00	1300.00	2800.00
4	33.910322	-117.264967	1500.00	1300.00	2800.00
5	33.910333	-117.256469	1500.00	1300.00	2800.00
6	33.887897	-117.229483	1500.00	1300.00	2800.00
7	33.880814	-117.229467	1500.00	1300.00	2800.00
8	33.876081	-117.235119	1500.00	1300.00	2800.00
9	33.876069	-117.243611	1500.00	1300.00	2800.00
10	33.884319	-117.253536	1500.00	50.00	1550.00



Flight Path Receptors

Name: RWY 12 Final Description: None Threshold height: 50 ft Direction: 135.0° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.890258	-117.260681	1500.00	50.00	1550.00
Two-mile	33.898508	-117.270608	1500.00	1300.00	2800.00

Name: RWY 30 Final
Description: None
Threshold height: 50 ft
Direction: 315.0°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.884319	-117.253536	1500.00	50.00	1550.00
Two-mile	33.876069	-117.243611	1500.00	1300.00	2800.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	o	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	0	0.0	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0.0	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
RWY 12 GA Pattern Route	0	0.0	0	0.0	
RWY 30 GA Pattern Route	0	0.0	0	0.0	
RWY 12 Final	0	0.0	0	0.0	
RWY 30 Final	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV: Rooftop Solar PV no glare found

Receptor results ordered by category of glare

Receptor	Annual Gre	Annual Green Glare		llow Glare
	min	hr	min	hr
RWY 12 GA Pattern Route	0	0.0	0	0.0
RWY 30 GA Pattern Route	0	0.0	0	0.0
RWY 12 Final	0	0.0	0	0.0
RWY 30 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

Rooftop Solar PV and Route: RWY 12 GA Pattern Route

No glare found

Rooftop Solar PV and Route: RWY 30 GA Pattern Route

No glare found



Rooftop Solar PV and FP: RWY 12 Final

No glare found

Rooftop Solar PV and FP: RWY 30 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition no glare found

Receptor results ordered by category of glare

Receptor	Annual Gre	Annual Green Glare		low Glare
	min	hr	min	hr
RWY 12 GA Pattern Route	0	0.0	0	0.0
RWY 30 GA Pattern Route	0	0.0	0	0.0
RWY 12 Final	0	0.0	0	0.0
RWY 30 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

Snack Shack Solar PV Addition and Route: RWY 12 GA Pattern Route

No glare found

Snack Shack Solar PV Addition and Route: RWY 30 GA Pattern Route

No glare found

Snack Shack Solar PV Addition and FP: RWY 12 Final

No glare found

Snack Shack Solar PV Addition and FP: RWY 30 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT

No glare found



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

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Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 9 of 11

Attachment C
March ARB Runway 14/32 General Aviation Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB Runway 14-32 GA Analysis

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101350.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	٥	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	1,530	25.5	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0.0	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 GA Pattern Route	1,530	25.5	0	0.0
RWY 32 GA Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.262368	1580.00	50.00	1630.00
5	33.834611	-117.262366	1580.00	50.00	1630.00
6	33.834609	-117.263094	1580.00	50.00	1630.00
7	33.834774	-117.263094	1580.00	50.00	1630.00
8	33.834774	-117.266977	1580.00	50.00	1630.00
9	33.834611	-117.266977	1580.00	50.00	1630.00
10	33.834611	-117.267518	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0° Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833112	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 14 GA Pattern Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248281	1500.00	50.00	1550.00
2	33.854942	-117.241136	1500.00	1500.00	3000.00
3	33.848078	-117.243236	1500.00	1500.00	3000.00
4	33.844669	-117.250119	1500.00	1500.00	3000.00
5	33.846422	-117.258344	1500.00	1500.00	3000.00
6	33.897972	-117.295011	1500.00	1500.00	3000.00
7	33.904833	-117.292903	1500.00	1500.00	3000.00
8	33.908242	-117.286017	1500.00	1500.00	3000.00
9	33.906486	-117.277783	1500.00	1500.00	3000.00
10	33.896431	-117.270636	1500.00	50.00	1550.00

Name: RWY 32 GA Pattern Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.896431	-117.270636	1500.00	50.00	1550.00
2	33.906486	-117.277783	1500.00	1500.00	3000.00
3	33.908242	-117.286017	1500.00	1500.00	3000.00
4	33.904833	-117.292903	1500.00	1500.00	3000.00
5	33.897972	-117.295011	1500.00	1500.00	3000.00
6	33.846422	-117.258344	1500.00	1500.00	3000.00
7	33.844669	-117.250119	1500.00	1500.00	3000.00
8	33.848078	-117.243236	1500.00	1500.00	3000.00
9	33.854942	-117.241136	1500.00	1500.00	3000.00
10	33.864994	-117.248281	1500.00	50.00	1550.00



Flight Path Receptors

Name: RWY 14 Final Description: None Threshold height: 50 ft Direction: 149.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	1500.00	3000.00

Name: RWY 32 Final
Description: None
Threshold height: 50 ft
Direction: 329.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	1500.00	3000.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	٥	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	1,530	25.5	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	0	0.0	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 GA Pattern Route	1,530	25.5	0	0.0
RWY 32 GA Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV: Rooftop Solar PV low potential for temporary after-image

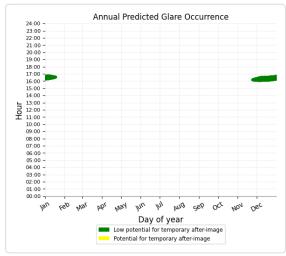
Receptor results ordered by category of glare

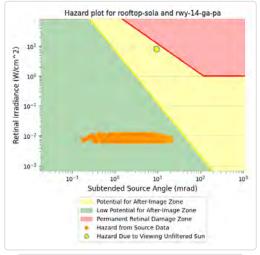
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 GA Pattern Route	1,530	25.5	0	0.0
RWY 32 GA Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

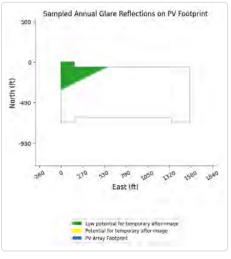


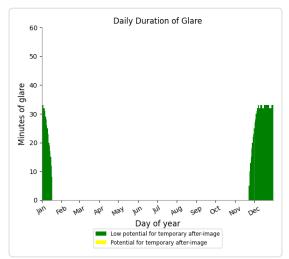
Rooftop Solar PV and Route: RWY 14 GA Pattern Route

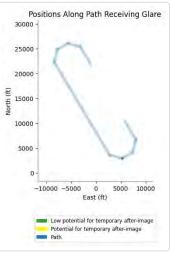
Yellow glare: none Green glare: 1,530 min.











Rooftop Solar PV and Route: RWY 32 GA Pattern Route

No glare found



Rooftop Solar PV and FP: RWY 14 Final

No glare found

Rooftop Solar PV and FP: RWY 32 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition no glare found

Receptor results ordered by category of glare

Receptor	Annual Gre	Annual Green Glare		llow Glare
	min	hr	min	hr
RWY 14 GA Pattern Route	0	0.0	0	0.0
RWY 32 GA Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

Snack Shack Solar PV Addition and Route: RWY 14 GA Pattern Route

No glare found

Snack Shack Solar PV Addition and Route: RWY 32 GA Pattern Route

No glare found

Snack Shack Solar PV Addition and FP: RWY 14 Final

No glare found

Snack Shack Solar PV Addition and FP: RWY 32 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT

No glare found



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

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Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

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Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 10 of 11

Attachment D
March ARB Runway 14/32 C-17/KC-135 Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB RWY 14-32 C-17 Analysis 1

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101371.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	٥	٥	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	11,297	188.3	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	8,587	143.1	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	1,224	20.4	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	18,660	311.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.266044	1580.00	50.00	1630.00
5	33.834774	-117.266044	1580.00	50.00	1630.00
6	33.834774	-117.266977	1580.00	50.00	1630.00
7	33.834611	-117.266977	1580.00	50.00	1630.00
8	33.834611	-117.267518	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833120	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 14 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248281	1500.00	50.00	1550.00
2	33.836269	-117.227869	1500.00	1500.00	3000.00
3	33.821961	-117.228367	1500.00	1500.00	3000.00
4	33.813147	-117.244350	1500.00	1500.00	3000.00
5	33.819225	-117.262269	1500.00	1500.00	3000.00
6	33.908131	-117.325528	1500.00	1500.00	3000.00
7	33.922394	-117.325047	1500.00	1500.00	3000.00
8	33.931244	-117.309014	1500.00	1500.00	3000.00
9	33.925156	-117.291061	1500.00	1500.00	3000.00
10	33.896431	-117.270636	1500.00	50.00	1550.00

Name: RWY 32 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.896431	-117.270636	1500.00	50.00	1550.00
2	33.925156	-117.291061	1500.00	1500.00	3000.00
3	33.931244	-117.309014	1500.00	1500.00	3000.00
4	33.922394	-117.325047	1500.00	1500.00	3000.00
5	33.908131	-117.325528	1500.00	1500.00	3000.00
6	33.819225	-117.262269	1500.00	1500.00	3000.00
7	33.813147	-117.244350	1500.00	1500.00	3000.00
8	33.821961	-117.228367	1500.00	1500.00	3000.00
9	33.836269	-117.227869	1500.00	1500.00	3000.00
10	33.864994	-117.248281	1500.00	50.00	1550.00



Flight Path Receptors

Name: RWY 14 Final Description: None Threshold height: 50 ft Direction: 149.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	1500.00	3000.00

Name: RWY 32 Final
Description: None
Threshold height: 50 ft
Direction: 329.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	1500.00	3000.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	0	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	11,297	188.3	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	8,587	143.1	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
RWY 14 C-17 - KC-135 Pattern Route	1,224	20.4	0	0.0	
RWY 32 C-17 - KC-135 Pattern Route	18,660	311.0	0	0.0	
RWY 14 Final	0	0.0	0	0.0	
RWY 32 Final	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV: Rooftop Solar PV low potential for temporary after-image

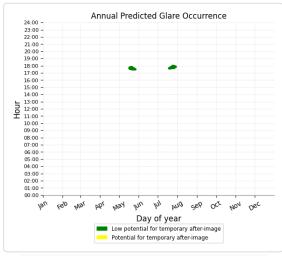
Receptor results ordered by category of glare

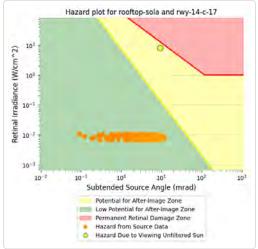
Receptor	Annual Gro	Annual Green Glare		llow Glare
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	272	4.5	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	11,025	183.8	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

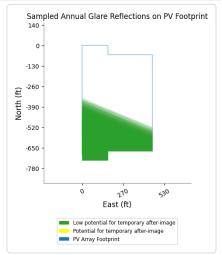


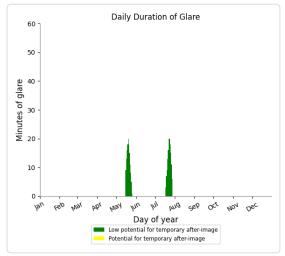
Rooftop Solar PV and Route: RWY 14 C-17 - KC-135 Pattern Route

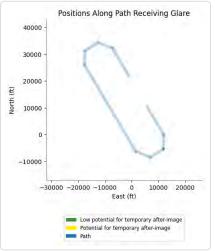
Yellow glare: none Green glare: 272 min.







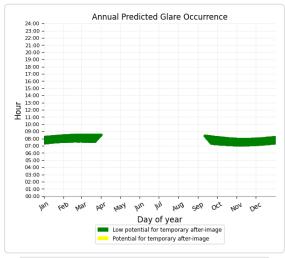


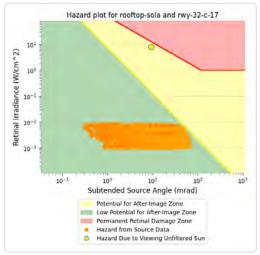


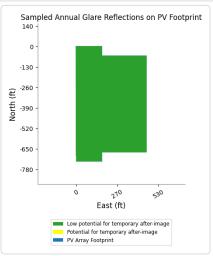


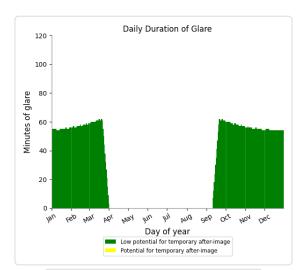
Rooftop Solar PV and Route: RWY 32 C-17 - KC-135 Pattern Route

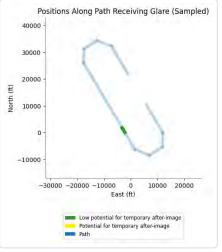
Yellow glare: none Green glare: 11,025 min.











Rooftop Solar PV and FP: RWY 14 Final

No glare found



Rooftop Solar PV and FP: RWY 32 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition low potential for temporary after-image

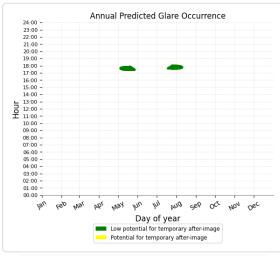
Receptor results ordered by category of glare

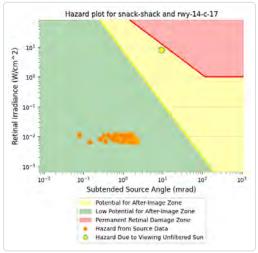
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	952	15.9	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	7,635	127.2	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

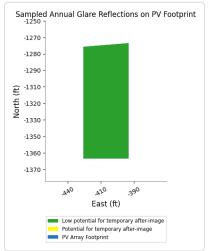


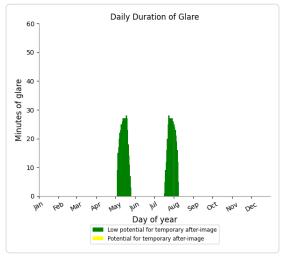
Snack Shack Solar PV Addition and Route: RWY 14 C-17 - KC-135 Pattern Route

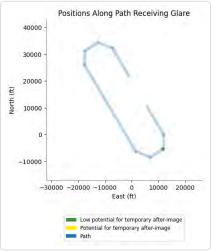
Yellow glare: none Green glare: 952 min.







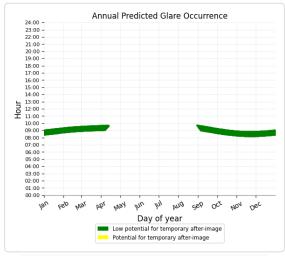


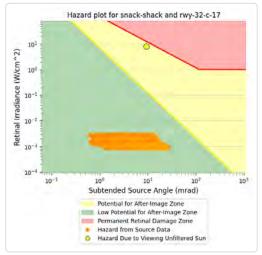


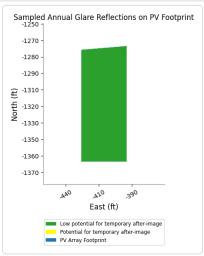


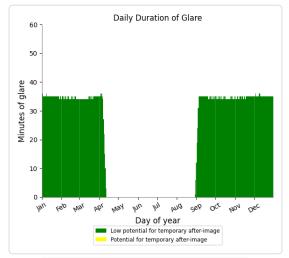
Snack Shack Solar PV Addition and Route: RWY 32 C-17 - KC-135 Pattern Route

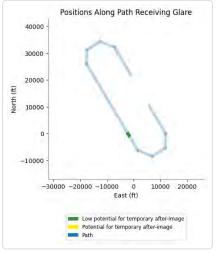
Yellow glare: none Green glare: 7,635 min.











Snack Shack Solar PV Addition and FP: RWY 14 Final

No glare found



Snack Shack Solar PV Addition and FP: RWY 32 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year. Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute

• Ocular transmission coefficient: 0.5

Pupil diameter: 0.002 metersEye focal length: 0.017 meters

· Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

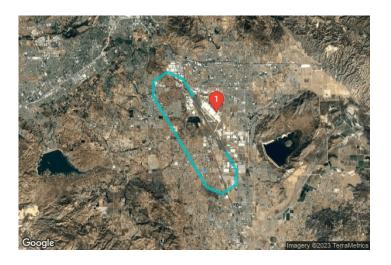
Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB RWY 14-32 C-17 Analysis 2

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101370.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual G	reen Glare	Annual Yel	llow Glare	Energy
	٥	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	9,706	161.8	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	8,586	143.1	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Gr	een Glare	Annual Ye	llow Glare
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	1,030	17.2	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	17,262	287.7	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836468	-117.266044	1580.00	50.00	1630.00
2	33.836468	-117.264007	1580.00	50.00	1630.00
3	33.834774	-117.264007	1580.00	50.00	1630.00
4	33.834774	-117.266044	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833120	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 14 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248281	1500.00	50.00	1550.00
2	33.836269	-117.227869	1500.00	1500.00	3000.00
3	33.821961	-117.228367	1500.00	1500.00	3000.00
4	33.813147	-117.244350	1500.00	1500.00	3000.00
5	33.819225	-117.262269	1500.00	1500.00	3000.00
6	33.908131	-117.325528	1500.00	1500.00	3000.00
7	33.922394	-117.325047	1500.00	1500.00	3000.00
8	33.931244	-117.309014	1500.00	1500.00	3000.00
9	33.925156	-117.291061	1500.00	1500.00	3000.00
10	33.896431	-117.270636	1500.00	50.00	1550.00

Name: RWY 32 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.896431	-117.270636	1500.00	50.00	1550.00
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7	33.813147	-117.244350	1500.00	1500.00	3000.00
8	33.821961	-117.228367	1500.00	1500.00	3000.00
9	33.836269	-117.227869	1500.00	1500.00	3000.00
10	33.864994	-117.248281	1500.00	50.00	1550.00



Flight Path Receptors

Name: RWY 14 Final Description: None Threshold height: 50 ft Direction: 149.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	1500.00	3000.00

Name: RWY 32 Final
Description: None
Threshold height: 50 ft
Direction: 329.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	1500.00	3000.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Orient Annual Green Glare Annual Yellow Glare		low Glare	Energy
	٥	o	min	hr	min	hr	kWh	
Rooftop Solar PV	10.0	180.0	9,706	161.8	0	0.0	-	
Snack Shack Solar PV Addition	10.0	180.0	8,586	143.1	0	0.0	24,630.0	

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Ye	llow Glare
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	1,030	17.2	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	17,262	287.7	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV: Rooftop Solar PV low potential for temporary after-image

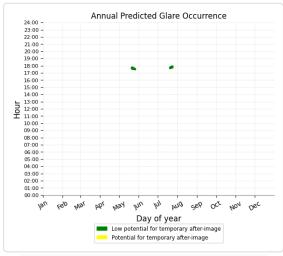
Receptor results ordered by category of glare

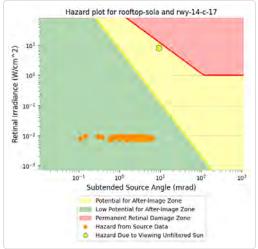
Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
RWY 14 C-17 - KC-135 Pattern Route	79	1.3	0	0.0	
RWY 32 C-17 - KC-135 Pattern Route	9,627	160.4	0	0.0	
RWY 14 Final	0	0.0	0	0.0	
RWY 32 Final	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

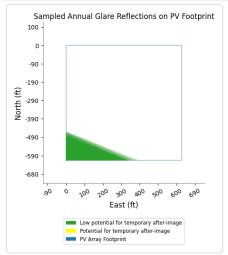


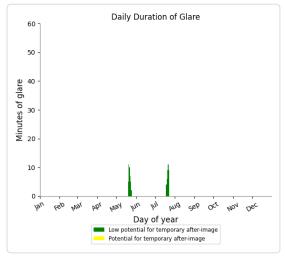
Rooftop Solar PV and Route: RWY 14 C-17 - KC-135 Pattern Route

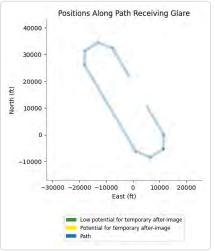
Yellow glare: none Green glare: 79 min.







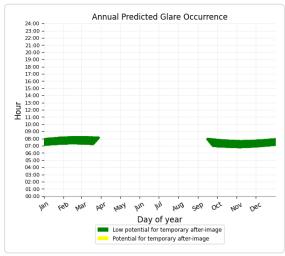


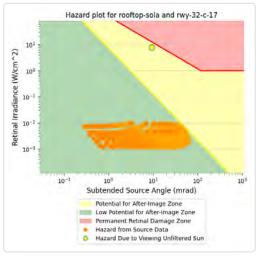


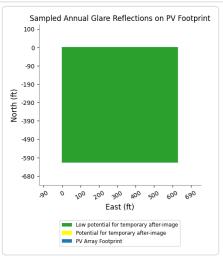


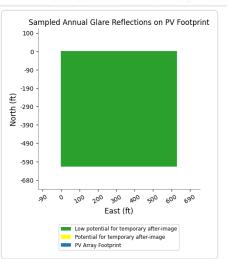
Rooftop Solar PV and Route: RWY 32 C-17 - KC-135 Pattern Route

Yellow glare: none Green glare: 9,627 min.



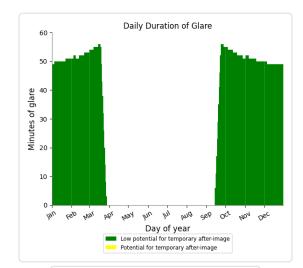


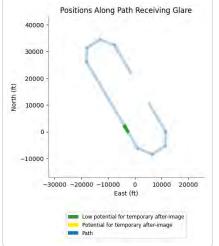




Rooftop Solar PV and FP: RWY 14 Final







Rooftop Solar PV and FP: RWY 32 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition low potential for temporary after-image

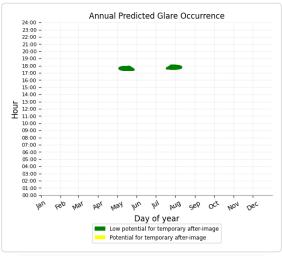
Receptor results ordered by category of glare

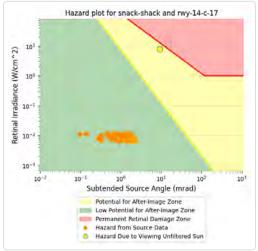
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	951	15.8	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	7,635	127.2	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

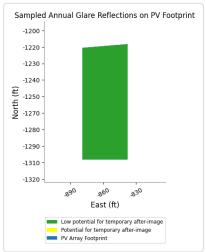


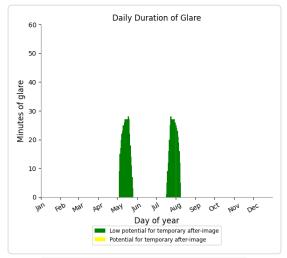
Snack Shack Solar PV Addition and Route: RWY 14 C-17 - KC-135 Pattern Route

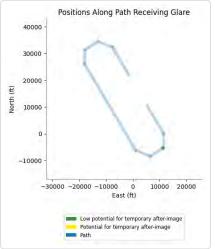
Yellow glare: none Green glare: 951 min.







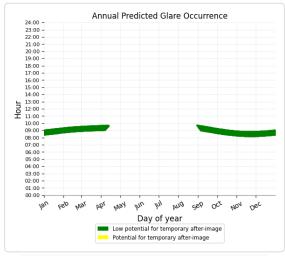


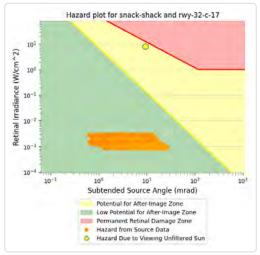


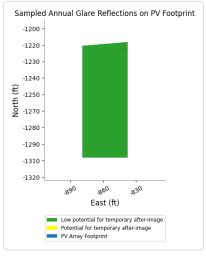


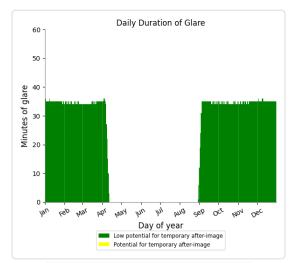
Snack Shack Solar PV Addition and Route: RWY 32 C-17 - KC-135 Pattern Route

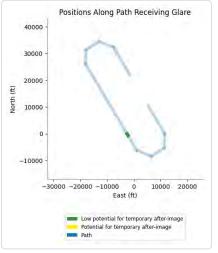
Yellow glare: none Green glare: 7,635 min.











Snack Shack Solar PV Addition and FP: RWY 14 Final



Snack Shack Solar PV Addition and FP: RWY 32 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year. Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute

• Ocular transmission coefficient: 0.5

Pupil diameter: 0.002 metersEye focal length: 0.017 meters

· Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

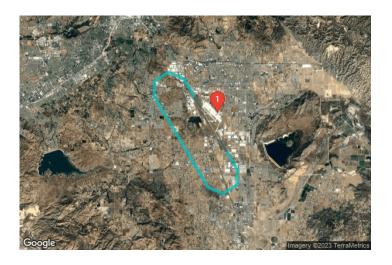
Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB RWY 14-32 C-17 Analysis 3

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101372.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual G	reen Glare	Annual Yel	low Glare	Energy
	0	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	7,702	128.4	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	8,585	143.1	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
RWY 14 C-17 - KC-135 Pattern Route	950	15.8	0	0.0	
RWY 32 C-17 - KC-135 Pattern Route	15,337	255.6	0	0.0	
RWY 14 Final	0	0.0	0	0.0	
RWY 32 Final	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836468	-117.264007	1580.00	50.00	1630.00
2	33.836468	-117.262368	1580.00	50.00	1630.00
3	33.834611	-117.262366	1580.00	50.00	1630.00
4	33.834609	-117.263094	1580.00	50.00	1630.00
5	33.834774	-117.263094	1580.00	50.00	1630.00
6	33.834774	-117.264007	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0° Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833120	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 14 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.864994	-117.248281	1500.00	50.00	1550.00
2	33.836269	-117.227869	1500.00	1500.00	3000.00
3	33.821961	-117.228367	1500.00	1500.00	3000.00
4	33.813147	-117.244350	1500.00	1500.00	3000.00
5	33.819225	-117.262269	1500.00	1500.00	3000.00
6	33.908131	-117.325528	1500.00	1500.00	3000.00
7	33.922394	-117.325047	1500.00	1500.00	3000.00
8	33.931244	-117.309014	1500.00	1500.00	3000.00
9	33.925156	-117.291061	1500.00	1500.00	3000.00
10	33.896431	-117.270636	1500.00	50.00	1550.00

Name: RWY 32 C-17 - KC-135 Pattern Route
Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.896431	-117.270636	1500.00	50.00	1550.00
2	33.925156	-117.291061	1500.00	1500.00	3000.00
3	33.931244	-117.309014	1500.00	1500.00	3000.00
4	33.922394	-117.325047	1500.00	1500.00	3000.00
5	33.908131	-117.325528	1500.00	1500.00	3000.00
6	33.819225	-117.262269	1500.00	1500.00	3000.00
7	33.813147	-117.244350	1500.00	1500.00	3000.00
8	33.821961	-117.228367	1500.00	1500.00	3000.00
9	33.836269	-117.227869	1500.00	1500.00	3000.00
10	33.864994	-117.248281	1500.00	50.00	1550.00



Flight Path Receptors

Name: RWY 14 Final
Description: None
Threshold height: 50 ft
Direction: 149.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	1500.00	3000.00

Name: RWY 32 Final
Description: None
Threshold height: 50 ft
Direction: 329.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	1500.00	3000.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual G	reen Glare	Annual Yel	low Glare	Energy
	٥	o	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	7,702	128.4	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	8,585	143.1	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
RWY 14 C-17 - KC-135 Pattern Route	950	15.8	0	0.0	
RWY 32 C-17 - KC-135 Pattern Route	15,337	255.6	0	0.0	
RWY 14 Final	0	0.0	0	0.0	
RWY 32 Final	0	0.0	0	0.0	
1-ATCT	0	0.0	0	0.0	

PV: Rooftop Solar PV low potential for temporary after-image

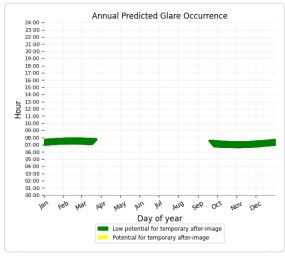
Receptor results ordered by category of glare

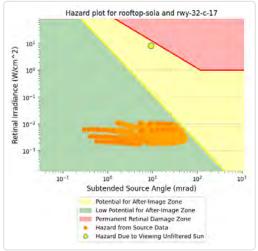
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 C-17 - KC-135 Pattern Route	7,702	128.4	0	0.0
RWY 14 C-17 - KC-135 Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

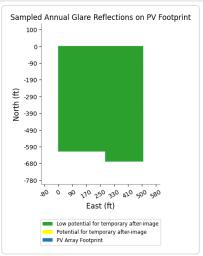


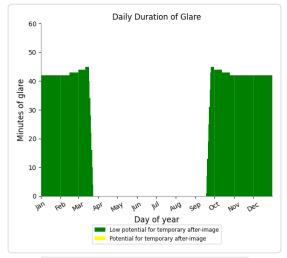
Rooftop Solar PV and Route: RWY 32 C-17 - KC-135 Pattern Route

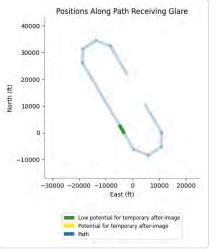
Yellow glare: none Green glare: 7,702 min.











Rooftop Solar PV and Route: RWY 14 C-17 - KC-135 Pattern Route



Rooftop Solar PV and FP: RWY 14 Final

No glare found

Rooftop Solar PV and FP: RWY 32 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition low potential for temporary after-image

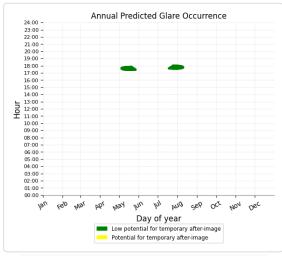
Receptor results ordered by category of glare

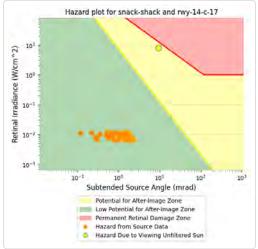
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 14 C-17 - KC-135 Pattern Route	950	15.8	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	7,635	127.2	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

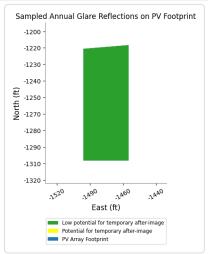


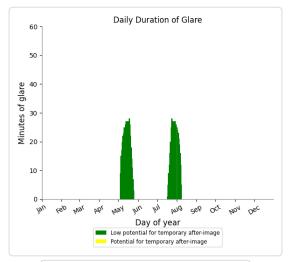
Snack Shack Solar PV Addition and Route: RWY 14 C-17 - KC-135 Pattern Route

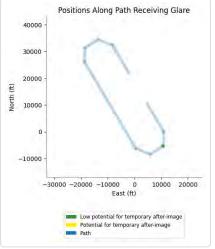
Yellow glare: none Green glare: 950 min.







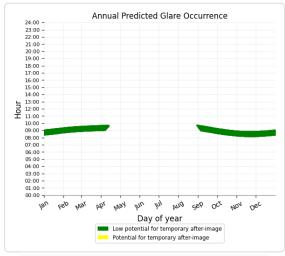


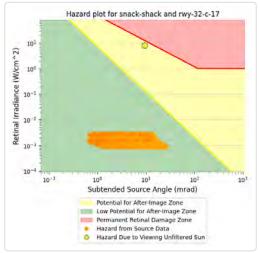


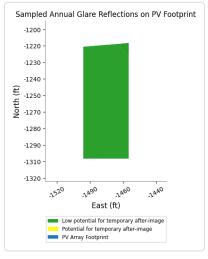


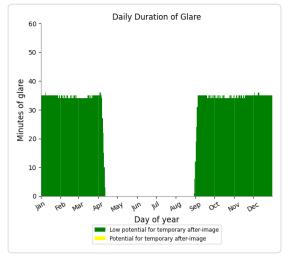
Snack Shack Solar PV Addition and Route: RWY 32 C-17 - KC-135 Pattern Route

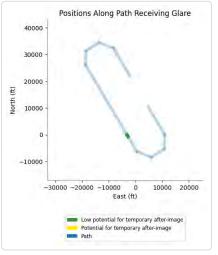
Yellow glare: none Green glare: 7,635 min.











Snack Shack Solar PV Addition and FP: RWY 14 Final



Snack Shack Solar PV Addition and FP: RWY 32 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year. Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute

• Ocular transmission coefficient: 0.5

Pupil diameter: 0.002 metersEye focal length: 0.017 meters

· Sun subtended angle: 9.3 milliradians

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Technical Memorandum Solar Glare Analysis – Cajalco & Seaton Project with Snack Shack Addition November 17, 2023 Page 11 of 11

Attachment E
March ARB Runway 14/32 Overhead Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: Cajalco & Seaton

Rooftop solar PV installation for light industrial warehouse project.

Site configuration: Cajalco-Seaton-MARB RWY 14-32 Overhead Analysis

Client: Industrial IV Enterprise LLC

Created 23 Sep, 2023
Updated 17 Nov, 2023
Time-step 1 minute
Timezone offset UTC-8
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 500 kW to 1 MW
Site ID 101352.17664

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	llow Glare	Energy
	٥	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	22,063	367.7	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	11,978	199.6	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Gr	Annual Green Glare		llow Glare
	min	hr	min	hr
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 32 Overhead Route	34,041	567.4	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0



Component Data

PV Arrays

Name: Rooftop Solar PV
Axis tracking: Fixed (no rotation)

Tilt: 10.0°

Orientation: 180.0° Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.836631	-117.267522	1580.00	50.00	1630.00
2	33.836631	-117.266978	1580.00	50.00	1630.00
3	33.836468	-117.266978	1580.00	50.00	1630.00
4	33.836468	-117.262368	1580.00	50.00	1630.00
5	33.834611	-117.262366	1580.00	50.00	1630.00
6	33.834609	-117.263094	1580.00	50.00	1630.00
7	33.834774	-117.263094	1580.00	50.00	1630.00
8	33.834774	-117.266977	1580.00	50.00	1630.00
9	33.834611	-117.266977	1580.00	50.00	1630.00
10	33.834611	-117.267518	1580.00	50.00	1630.00

Name: Snack Shack Solar PV Addition
Axis tracking: Fixed (no rotation)

Tilt: 10.0° Orientation: 180.0° Rated power: 11.0 kW

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.833112	-117.268950	1603.00	25.00	1628.00
2	33.833112	-117.268833	1603.00	25.00	1628.00
3	33.832869	-117.268833	1603.00	25.00	1628.00
4	33.832869	-117.268950	1603.00	25.00	1628.00



Route Receptors

Name: RWY 14 Overhead Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.968036	-117.322128	1500.00	2000.00	3500.00
2	33.880706	-117.259453	1500.00	2000.00	3500.00
3	33.863564	-117.293808	1500.00	2000.00	3500.00
4	33.908131	-117.325528	1500.00	2000.00	3500.00
5	33.925156	-117.291061	1500.00	2000.00	3500.00
6	33.896431	-117.270636	1500.00	50.00	1550.00

Name: RWY 32 Overhead Route

Path type: One-way (toward increasing index)

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.793375	-117.196878	1500.00	2000.00	3500.00
2	33.880706	-117.259453	1500.00	2000.00	3500.00
3	33.863564	-117.293808	1500.00	2000.00	3500.00
4	33.819225	-117.262269	1500.00	2000.00	3500.00
5	33.836269	-117.227869	1500.00	2000.00	3500.00
6	33.864994	-117.248281	1500.00	50.00	1550.00

Flight Path Receptors

Name: RWY 14 Final Description: None Threshold height: 50 ft Direction: 149.5° Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.896431	-117.270636	1500.00	50.00	1550.00
Two-mile	33.906486	-117.277783	1500.00	2000.00	3500.00

Name: RWY 32 Final
Description: None
Threshold height: 50 ft
Direction: 329.5°
Glide slope: 3.0°

Pilot view restricted? Yes Vertical view: 30.0° Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.864994	-117.248281	1500.00	50.00	1550.00
Two-mile	33.854942	-117.241136	1500.00	2000.00	3500.00



Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.00	118.00

Map image of 1-ATCT





Glare Analysis Results

Summary of Results Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	0	min	hr	min	hr	kWh
Rooftop Solar PV	10.0	180.0	22,063	367.7	0	0.0	-
Snack Shack Solar PV Addition	10.0	180.0	11,978	199.6	0	0.0	24,630.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare Annual Yellov		llow Glare	
	min	hr	min	hr
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 32 Overhead Route	34,041	567.4	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

PV: Rooftop Solar PV low potential for temporary after-image

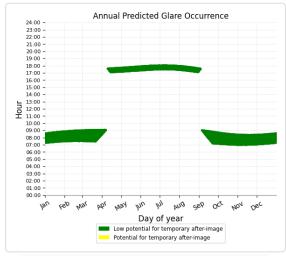
Receptor results ordered by category of glare

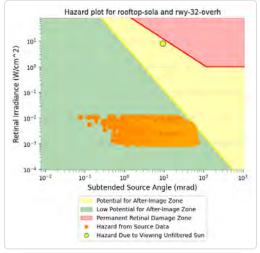
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 Overhead Route	22,063	367.7	0	0.0
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

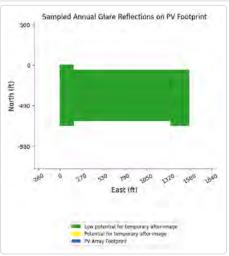


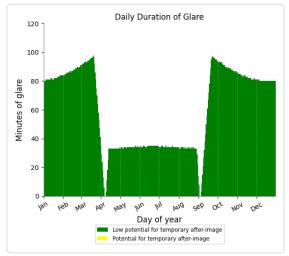
Rooftop Solar PV and Route: RWY 32 Overhead Route

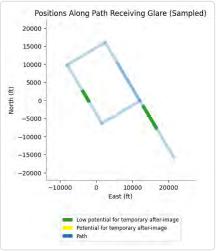
Yellow glare: none Green glare: 22,063 min.











Rooftop Solar PV and Route: RWY 14 Overhead Route



Rooftop Solar PV and FP: RWY 14 Final

No glare found

Rooftop Solar PV and FP: RWY 32 Final

No glare found

Rooftop Solar PV and 1-ATCT

No glare found

PV: Snack Shack Solar PV Addition low potential for temporary after-image

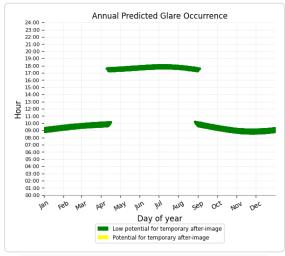
Receptor results ordered by category of glare

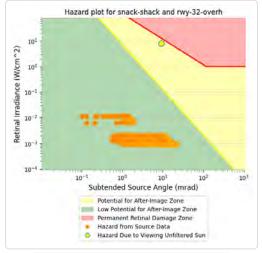
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 Overhead Route	11,978	199.6	0	0.0
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

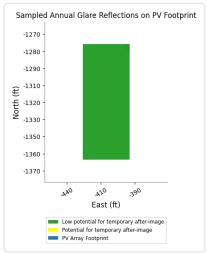


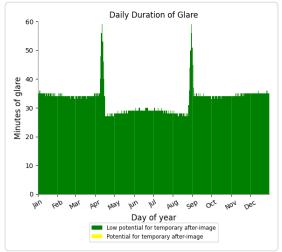
Snack Shack Solar PV Addition and Route: RWY 32 Overhead Route

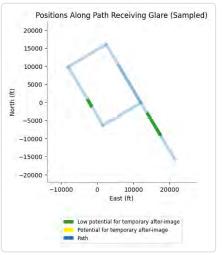
Yellow glare: none Green glare: 11,978 min.











Snack Shack Solar PV Addition and Route: RWY 14 Overhead Route



Snack Shack Solar PV Addition and FP: RWY 14 Final

No glare found

Snack Shack Solar PV Addition and FP: RWY 32 Final

No glare found

Snack Shack Solar PV Addition and 1-ATCT



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minuteOcular transmission coefficient: 0.5Pupil diameter: 0.002 meters

Eye focal length: 0.017 metersSun subtended angle: 9.3 milliradians

our subterfued arigie. 5.5 milliadiaris

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NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact ALUC Planner Jackie Vega at (951) 955-0982.

The County of Riverside Planning Department should be contacted on non-ALUC issues. For more information, please contact County of Riverside Planner Russel Brady at 951-955-3025.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to javega@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

ZAP1590MA23 – Industrial VI Enterprises, LLC (Representative: Albert A. Webb Associates) – County of Riverside Case Nos. CZ2200062 (Change of Zone), PPT220050 (Plot Plan), TPM38601 (Tentative Parcel Map). A proposal to construct a 1,003,510 square foot industrial building with mezzanines on 44.84 acres, and a recreational park consisting of a sports field, picnic area, tot lot, and a 3,110 square foot snack bar on a separate 4.19 acres, located on the southwest corner of Cajalco Road and Seaton Avenue. The applicant also proposes to change the site's zoning from Light Agriculture (A-1-1), Rural Residential (R-R-1/2) to Industrial Park (I-P). The applicant also proposes dividing 58.19 acres into three separate parcels. The applicant also proposes to construct a 1,003,510 square foot solar panel on the industrial building rooftop and 3,110 square foot solar panel system on the proposed snack bar (Airport Compatibility Zone C2 of the March Air Reserve Base/Inland Port Airport Influence Area)



APPLICATION FOR MAJOR LAND USE ACTION REVIEW

ALUC STAFF ONLY						
ALUC Case Number: ZAP1590MA23 Date Submitted: 10/31/	∠S Hearing Staff Review					
March Zone: C2 Public	Treating V Stail Treview					
Applicant						
Applicant Full Name: Industrial VI Enterprises, LLC						
Applicant Address: 901 Via Piemonte, Stuite 175, Ontario, CA	91764					
Phone: (909) 256-5924 Email: John.Grace@hillwood.com						
Representative/ Property Owner Contact Info	rmation					
Representative: Albert A. Webb Associates	Email: oscar.valadez@webbassociates.com					
c/o Oscar Valadez	Phone: (951) 295-9496					
Address: 3788 McCray Street, Riverside, CA 92506						
Property Owner: Industrial VI Enterprises, LLC c/o John Grace	Email: John.Grace@hillwood.com Phone: (909) 256-5924					
Address: 901 Via Piemonte, Stuite 175, Ontario, CA 91764						
Local Jurisdiction Agency	Technology of					
Agency Name: County of Riveside Discool Brody (Planning Department)	Phone: (951) 955-3025					
Staff Contact: Russel Brady (Planning Department)	Email: rbrady@rivco.org					
Address: 4080 Lemon Street 12th Floor, Riverside, CA 92501						
Local Agency Case No.: PPT220050 TPM38601						
Project Location						
Street Address: Located on Cajalco Rd between Seaton Ave. and Decker Rd. Gross Parcel Size.: 50						
Assessor's Parcel No.: 317-080-003 thru -008, -013 & -014, -019 thru -023, -027 thru -029						
Solar						
Is the project proposing solar Panels? Yes No If ye	s, please provide solar glare study. if in Zone C or higher)					

	Data Data	
Site Elevation:(above 1573' mean sea level)		
Height of Building or structures:		
What type of drainage basins being proposed and the square		eatment Box
footage:	Nation	The second second
	Notice	

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of existing and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing).

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.6

HEARING DATE: January 11, 2024

CASE NUMBER: ZAP1078TH23 - Thermal Operating Company, LLC

(Representative: Albert A. Webb Associates)

APPROVING JURISDICTION: County of Riverside

JURISDICTION CASE NO: MTE230043 (Minor Temporary Event)

LAND USE PLAN: 2005 Jacqueline Cochran Regional Airport Land Use

Compatibility Plan (as amended in 2006)

Airport Influence Area: Jacqueline Cochran Regional Airport

Land Use Policy: Compatibility Zones B1, C, and D

Noise Levels: 55 - 60 CNEL from aircraft

MAJOR ISSUES: The proposed Minor Temporary Event is in direct violation of the underlying conditions of approval for the Thermal Motorclub, specifically, no use of the racetrack for the purpose of spectator sports in which guests pay for admission was included in the original consistency determination. The purpose of the condition as part of its original consistency finding was that the Thermal Motorclub was to be only used as a membership track, not open to the public with huge spectator events, in order to protect the general public health and safety from aircraft accidents.

RECOMMENDATION: Staff recommends that the Commission find the Minor Temporary Event <u>INCONSISTENT</u> with the 2005 Jacqueline Cochran Regional Airport Land Use Compatibility Plan, as amended in 2006, based on the fact that the proposed temporary event violates the original conditions of approval prohibiting spectator events opened to the public which is a significant safety concern.

PROJECT DESCRIPTION: A proposal for a Minor Temporary Event to host an IndyCar pre-season testing and sprint races, from March 22 to March 24, 2024, from 8:00 a.m. to 4:00 p.m. at the 139 acres Thermal Motorclub facility. The Event proposes a maximum 3,500 people per day including staff, racers and general public. The Event will be open to the public with approximately 1,200 tickets sold to the general public (which directly conflicts with the underlying conditions of approval for the original Thermal Motorclub project). Approximately 1,200 people will occupy temporary bleacher seating and paddock viewing area, and approximately 1,500 people will occupy the 80 trackside units and 48 spa casitas, and approximately 800 people will make up staff and racers. Food and live entertainment will also be provided within the existing buildings. The Event will be televised with on-track cameras.

PROJECT LOCATION: The site is located southerly of Avenue 60, westerly of Polk Street, northerly of Avenue 62, and easterly of Tyler Street, in the unincorporated community of Thermal, approximately 4,700 feet southeasterly of the future southerly terminus of Runway 17-35 at Jacqueline Cochran Regional Airport.

HISTORY:

History of ALUC Review of Thermal Club Plot Plan No. 24690

Plot Plan No. 24690 was originally considered by the Airport Land Use Commission at its October 14, 2010 hearing. At that time, it was described as "a proposal to construct and operate a motorsports race track facility consisting of a private (membership) auto racing track, control tower, track-side garages/luxury suites, event tent, member car storage buildings, registration building, maintenance building, tuning shop, go-kart track, and go-kart team garages," along with 254 private/member garages, one for each "founders' lot" being established through Commercial Parcel Map No. 36293. The track was not to be open to the public and would be for daytime use only, and there was to be no overnight occupancy of the members' garages on the founders' lots.

Based on sample floor plans provided by the applicant, ALUC Planner Russell Brady estimated total planned occupancy per member garage at 19.1 persons, and that not more than 6 lots would be located within a single-acre area. As such, the single-acre intensity of the founders' lot areas was estimated at less than 120 persons per acre. The applicant team estimated the number of persons in each garage as 14.3. On an overall basis, with 195 acres in Compatibility Zone C, the average intensity allowance of 75 persons per acre results in a total allowed capacity of 14,625 persons.

Condition No. 12, as recommended in the initial staff report, stated as follows:

"Prior to building permit issuance of any of the Member Garages/Founder Lots, verification that proposed buildings do not exceed the Standard Garage plan shall be provided. The Standard Garage shall be defined as two stories, with a total square feet of 7,150, including a garage area of 2,450 square feet, storage area of 380 square feet, and office use or other undefined area of 4,320 square feet. Any building that exceeds the number of stories, total square feet of the building, or total square feet of the individual uses, shall be reviewed by ALUC for consistency."

The applicant team expressed concerns that persons purchasing lots larger than the standard size of 7,540 square feet might wish to have larger garages, and so staff prepared revised conditions that provided separate conditions for the smaller lots and a general condition. The condition for the smaller lots was revised to read as follows:

"Prior to building permit issuance on any of the Founders' Lots with a net area of 7,540 square feet or less, verification that proposed buildings do not exceed the "Standard Garage" plan shall be provided. The "Standard Garage" shall be defined as having a total square footage not exceeding 7,150 square feet, with office (and kitchen, if applicable) area not exceeding 4,320 square feet, and the remainder of the building devoted to storage, garage, and warehousing uses (Occupancy Type S uses). Any building on such lots proposing either (1) a total square footage exceeding 7,150 square feet or (2) more than 4,320 square feet of uses other than Occupancy Type S uses, or with a height exceeding two stories or 42 feet, shall be submitted to the Riverside County Airport Land Use Commission for review."

A general condition No. 13 was added that would apply to all of the Founders' Lots stating as follows:

"Development on Founders' Lots shall comply with the following standards: (1) the floor area ratio shall not exceed 0.95; (2) lot coverage shall not exceed 0.5; (3) the proportion of the building allocated to office uses or other uses whose intensity exceeds Occupancy Type S uses shall not exceed 0.6; (4) no uses more intense than office uses and no assembly uses are permitted; (5) no residential uses or overnight occupancy is permitted; (6) the building does not exceed 42 feet in height; (7) no parking spaces are provided outside of the garage; and (8) garages contain a minimum space for two automobiles. If any of these criteria are not met, the building shall be submitted to the Riverside County Airport Land Use Commission for review."

Condition No. 14 required posting of special occupancy load restrictions limiting the maximum number of persons in each of the track side garages, the registration/administration building, and the corporate tent at any given time to 150 persons, and limiting the maximum number of persons in each of the members' storage garage structures at any given time to 75 persons.

Condition No. 15 stated as follows: "Prior to map recordation of Parcel Map No. 36293, a notice to potential purchasers that no residential uses or overnight occupancy shall be permitted, shall be provided to ALUC staff for approval. Prior to sale of any individual lot, this notice shall be provided to potential purchasers."

On April 12, 2012, the Airport Land Use Commission considered Plot Plan No. 24690, Substantial Conformance No. 1. The proposal primarily affected uses that would be in the "motorsports village" and included deletion of the track-side garages/luxury suites and the event tent (a.k.a., corporate tent) and addition of team garages, day garages, and a fuel island. The control tower and registration buildings were redesigned as well.

Condition No. 14 was amended to limit the maximum number of persons in the tower building and the tuning shop building (as well as the registration/administration building) at any given time to 150 persons, and limiting the maximum number of persons permitted in each of the day garage structures at any given time to 75 persons.

The Commission modified Condition No. 15 at the hearing to read as follows: A notice to potential purchasers, indicating that no residential uses or overnight occupancy shall be permitted, shall be provided in the form of a legally recordable instrument to ALUC staff for review and approval regarding content of the notice. Said instrument shall be recorded at the time of map recordation for Parcel Map No. 36293. Prior to sale of any individual lot, this notice shall be provided to potential purchasers."

On September 12, 2013, the Airport land Use Commission considered Plot Plan No. 24690, Revised Permit No. 1. The applicant proposed addition of an on-site irrigation reservoir with aviary screen, deletion of the previously proposed, but never built, registration building, and amendments to the conditions relating to the occupancy type of the garages on the founders' lots and the prohibition of overnight stays. The applicant indicated that the assignment of a non-residential

occupancy classification to the garages on the founders' lots required various "commercial/industrial improvements within the individual garage units, such as elevators and other equipment to render the garage units accessible pursuant to the Americans with Disabilities Act, unlike the requirements imposed on garages attached to single-family residences.

ALUC staff responded that the fundamental problem arises from the site's Specific Plan and zoning were for industrial use. Additionally, the lots had been approved as commercial/industrial. If the applicant had wanted to allow residential uses, the founders' lots should have been established through a tract map process, rather than a parcel map process.

The Commission did not support staff's attempt to reduce the allowable square footages and reinstated the allowance for 7,150 square feet of total floor area, including up to 4,320 square feet of office, entertainment, and kitchen uses per building, but did add "whichever is less" in the second and third sentences following the phrase "two stories or 42 feet."

Staff proposed to amend the text of Condition No. 13 to read as follows: "Development on Founders' Lots shall comply with the following standards: (1) the floor area ratio shall not exceed 0.95; (2) lot coverage shall not exceed 0.5; (3) the proportion of the building allocated to uses other than storage, garage, and warehousing uses shall not exceed 0.6; (4) no uses more intense than office uses and no assembly uses are permitted; (5) no residential uses or overnight occupancy (occupancy between the hours of 10:00 P.M. and 6:00 A.M. – between 2200 hours and 600 hours military time) is permitted; (6) the building does not exceed 42 feet in height; (7) no parking spaces are provided outside of the garage; and (8) garages contain a minimum space for two automobiles. If any of these criteria are not met, the building shall be submitted to the Riverside County Airport Land Use Commission for review.

The Commission supported the amendment to section (3), did not support the amendment to section (5), and changed the word "these" to the word "those" in the final sentence.

Condition No. 14 was amended to limit the maximum number of persons in the members' storage garage in the village area at any given time to 75 persons. References to the registration/administration building and the day garage structures were deleted, as these were no longer part of the project.

Staff proposed to amend the text of Condition No. 15 to read as follows: "A notice to potential purchasers of lots, indicating that no residential uses or overnight occupancy (between 10:00 P.M. and 6:00 A.M. – between 2200 hours and 600 hours military time) shall be permitted, shall be provided in the form of a legally recordable instrument to ALUC staff for review and approval regarding content of the notice. Said instrument shall be recorded at the time of map recordation for each unit of Parcel Map No. 36293. Prior to sale of any individual lot, this notice shall be provided to potential purchasers. This restriction shall also be included within CC&Rs. This restriction does not apply to the nonresidential use of the tuning shop and members' storage garage in the village area for purposes of vehicle repair and maintenance during those hours, under the supervision of Club officials."

The Commission declined to make any changes to Condition No. 15.

On January 8, 2015, the Airport Land Use Commission considered Specific Plan No. 303, Amendment No. 3, Change of Zone Case No. 7852, and Tentative Tract Map No. 36851. Although Plot Plan No. 24690 was not directly considered, its conditions became an integral part of the discussion of the proposal to change the designation of the Thermal Club from Heavy Industrial to Mixed Use, in order to provide for a maximum of 166 dwelling units (including 15 live/work units and an "amenity" area that would allow for a hotel, motel, or bed and breakfast facility with up to 32 rooms. In order to avoid increasing the allowable number of residential units in the entirety of the Kohl Ranch Specific Plan, the applicant proposed to reduce the number of dwelling units in the central portion of the Specific Plan by an equal amount. The Tentative Tract Map proposed to subdivide 20 non-contiguous Founders' Lots parcels for condominium purposes so as to allow for each of those lots to accommodate a two-unit structure or duplex.

The applicant originally proposed to provide for 120 overnight stay units within Zone D and 39 within Zone C, plus 15 live/work units in Zone C. However, a portion of the Zone C area had been separated from the Thermal Club ownership for use as a BMW facility. This reduced the Thermal Club acreage within Zone C to 155 acres. Therefore, pursuant to Compatibility Plan criteria, only 31 dwelling units could be located in Zone C. The net density of the portion of the project in Zone D, however, would have fallen into the prohibited intermediate density range. (Ultimately, the Airport Land Use Commission utilized Policy 3.3.6 to allow up to 120 units with overnight occupancy on the original 103 lots within Zone D and adding the additional units allowed by the Tentative Tract Map, given that the inherent ambient noise from the racetrack already exposes the proposed units to considerable noise, rendering the impact from aircraft noise to those units negligible, and that the project provides 233.6 acres of open area, which greatly exceeds the minimum open area requirement, thus limiting potential safety impacts on the proposed residential area. A total of 39 units with overnight stays was allowed in Zone C, including a row of 18 lots along the southerly portion of the property and 21 lots east of the track. This was part of a trade-off in which the applicant withdrew the request for the 15 live/work units.)

A set of conditions were provided that were based on the Plot Plan conditions, with the following changes:

It was clarified that Condition Nos. 12, 13, and 15 would not apply to those Founders' Lots allowing overnight stays. A new conceptual Condition No. 33 was formulated for the units that would allow overnight stays, stating as follows:

"Prior to building permit issuance on any of the Founders' Lots allowing overnight stays within Planning Area E-5, E-6, E-7, E-8 and with a net area of 7,540 square feet or less, County Plan Check officials shall verify that either: (1) the proposed building does not exceed the "Standard Unit" plan or (2) the larger building has been submitted to the Riverside County Airport Land Use Commission staff and determined to be consistent. The "Standard Unit" shall be defined as having a total square footage not exceeding 7,150 square feet and a height not exceeding two stories or 42 feet. Any building on such lots proposing either (1) a total square footage exceeding 7,150 square feet or (2) more than a height exceeding two stories or 42 feet, shall be submitted to the Riverside County Airport Land Use Commission for review."

It should be noted that no restriction was placed on the size of units allowing overnight stays on lots with a net area larger than 7,540 square feet.

Three commercial/industrial projects were approved through separate Plot Plans, reducing the acreage of Plot Plan No. 24690 in Compatibility Zone C: Plot Plan No. 25677 for a BMW Performance Driving School facility on a 37.3-acre area that had previously been planned for a go-kart track; Plot Plan No. 26120 for development of eight industrial buildings with a cumulative gross floor area of 135,549 square feet on 4.69 acres southerly of Jasper Lane; and Plot Plan No. 26121 for development of fourteen industrial buildings with a cumulative gross floor area of 361,800 square feet on 14.16 acres westerly of Ascot Drive. Together these projects reduced the acreage of Plot Plan No. 24690 in Zone C to 134.2 acres.

On October 12, 2017, the Airport Land Use Commission considered Plot Plan No. 24690, Revised Permit No. 2, which proposed to add a members' club house facility and six commercial hotel suites on 5.39 acres in Zone D and a new 7,040 square foot trackside garage with viewing deck in Zone C. A separate set of conditions was prepared for this project.

On December 14, 2017, the Airport Land Use Commission considered Specific Plan No. 303, Amendment No. 4, along with its associated Change of Zone Case No. 7952. The Specific Plan Amendment proposed to allow overnight stays at the remaining 110 "founders' lots" in Zone C by creating a new land use category, "racetrack recreational units." The applicant contended that these "racetrack recreational units" would be distinguished from residences, and should not be counted as such, because they would be subject to limitations within the Thermal Club's covenants. conditions, and restrictions on the number of consecutive nights that they would be in use. They would be intermittently occupied overnight, but would not be available for use as permanent residences. Staff's concern was that the Zone C density limitations (one dwelling unit per five acres) would be exceeded if any additional residences were permitted in the Zone C area. The Commission found the project inconsistent. This determination was ultimately overruled by the Board of Supervisors, who allowed most, but not all, of the remaining lots to be used for overnight stays. Specifically, 36 lots (Lots 149 through 184) located westerly and northwesterly of the northerly racing circuit would continue to be prohibited from having overnight occupancy. So there are now three different levels of occupancy for the founders' lots: 159 that can be used as residences (as far as the County is concerned), 75 that are permitted overnight occupancy but are not residences, and 36 that permit neither residential use nor overnight occupancy.

It should be noted that the Plot Plan was not concurrently under consideration at that time.

On June 11, 2020, the Airport Land Use Commission considered Plot Plan No. 24690, Revised Permit No. 3, which proposed to construct a new 16,800 square foot two-story "middle paddock" garage with lounge (tables and chairs) for track viewing and dining and offices on the second floor in Zone C. A separate set of conditions was prepared for this project.

On August 11, 2022, the Airport Land Use Commission considered Plot Plan No. 24690, Revised

Permit No. 4, which proposed to construct a 6,000 square foot single-story trackside commercial garage (no viewing area) on 139 acres, within the middle paddock area of the existing Thermal Motorclub.

On January 12, 2023, the Airport Land Use Commission considered MTE220031 (Minor Temporary Event), which proposed to host an 'IndyCar Open Test Event' from February 1, 2023, to February 4, 2023, between the hours of 7:00 a.m. to 6:00 p.m. on the 139 acres Thermal Motorclub facility. The event was approved to be strictly private invitation-only event not open to the public. No tickets were to be sold. No buildings or structures were proposed. Food and live bands were to be also provided within the existing buildings. The event would have a maximum 1,200 people per day in attendance including staff and racers (and that the paddock viewing area would have a maximum of 825 people at any given time).

BACKGROUND (PROPOSED PROJECT):

Operation: The IndyCar pre-season testing and sprint races (the Event) will take place from March 22 to March 24, 2024, from 8:00 a.m. to 4:00 p.m. at the 139 acres Thermal Motorclub facility. The Event proposes a maximum 3,500 people per day including staff, racers and general public. The Event will be open to the public with approximately 1,200 tickets sold to the general public (which directly conflicts with the underlying conditions of approval for the original Thermal Motorclub project). Approximately 1,200 people will occupy temporary bleacher seating and paddock viewing area, and approximately 1,500 people will occupy the 80 trackside units and 48 spa casitas, and approximately 800 people will make up staff and racers. Food and live entertainment will also be provided within the existing buildings. The Event will be televised with on-track cameras.

In comparing the proposed Event with the previous event reviewed by the ALUC, the most significant difference are: 1) the increase in the number of people from 1,200 people to 3,500 people, and 2) changing the nature of the Event from a private invitation only (not open to the public and no tickets sold) to opened to the public with tickets being sold. There are concerns that the proposed Event has tripled in occupancy size, as well as opening the event to the general public with ticket sales, which a large majority of the public spectators may be unaware of the potential risks of the aircraft in the vicinity. This was the original premise of the underlying project conditions of approval prohibiting the use of the track for the purposes of spectator sports in which guests pay for admission, or to which the general public is invited:

"No use of the automobile racetrack for the purpose of spectator sports, in which guests pay for admission to an event or series of events, or to which the general public is invited, is included in this determination of consistency".

The purpose of the condition as part of its original consistency finding was that the Thermal Motorclub was to be only used as a membership track, not open to the public with huge spectator events, in order to protect the general public health and safety from aircraft accidents. Any modification to the condition or inclusion of public spectator events at the racetrack should be brought forth in a revision to the underlying plot plan entitlement for ALUC to review and analyze.

Occupancy: Pursuant to the Jacqueline Cochran Regional Airport Land Use Compatibility Plan (ALUCP), the Event is located in Compatibility Zones B1, C, and D, which would normally be subject to the underlying intensity criteria for nonresidential development. However, Policy 3.1.4(a)(2) of the Riverside County Airport Land Use Compatibility Plan provides additional guidance for special events:

- 3.1.4 Nonresidential Development: The compatibility of nonresidential development shall be assessed primarily with respect to its usage intensity (the number of people per acre) and the noise-sensitive of the use. Additional criteria listed in Table 2A shall also apply.
 - (a) The total number of people permitted on a project site at any time, except for rare special events, must not exceed the indicated usage intensity times the gross acreage of the site.
 - (1) Usage intensity calculations shall include all people (e.g. employees, customers/visitors, etc. who may be on the property at any single point in time, whether indoors or outside.
 - (2) Rare special events are ones (such as an air show at an airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

It is indicated in subsection (a) that rare special events are not subject to the regular intensity criteria set forth in Table 2A Basic Compatibility Criteria. This is largely based on the understanding that these events are temporary in nature and will not have a significant number of people for that long of an extended period. It is also mentioned that rare special events can have "extra safety precautions" as deemed appropriate. The Thermal racetrack normal operation consists of a private racetrack not opened to the public. The Commission would have to find that the facility hosting the rare special event was not designed and normally not used for the proposed activity, and that appropriate extra safety precautions can be taken to protect both the attendees at the event and aircraft that may be operating during the time of the event.

The Event will have a maximum 3,500 people per day in attendance at any given time including staff and racers. Approximately 1,200 people will occupy temporary bleacher seating and paddock viewing area, and approximately 1,500 people will occupy the 80 trackside units and 48 spa casitas, and approximately 800 people will make up staff and racers. The paddock area itself is approximately 10.5 acres which will help with the people displacement. Additionally, the racetrack itself provides suitable open area in the event of an emergency off-field landing.

The applicant has provided historical flight data taken from 2019 through 2023 for JCRA during the weekend date of the Event race (March 22 to March 24), and an analysis of this data concludes:

- For flights arriving north on Runway 35, an average of 5 flights have historically arrived during the race time.
- For flights departing south on Runway 17, fewer than 2 flights have historically departed during the race time.

<u>Airport Manager Comments:</u> Due to its proximity to the Jacqueline Cochran Regional Airport, the project was transmitted to the airport manager for review and comments. On December 8, 2023, staff received comments from the airport manager Angela Jamison.

She emphasized the importance of the ALUCP and the compatibility between the airport and surrounding land uses in order to protect the public health, safety and welfare, and recommends "that all approved land uses be consistent with the ALUCP guidance and conditions to protect the airport now and in the future, to minimize risk to reasonable levels by ensuring low density/intensity of use in the immediate vicinity of the airport in the unlikely event of an aircraft accident".

She also highlights the fact that the FAA has exclusive authority to regulate aircraft in flight, and "that federal law also gives the Pilot in Command (PIC) final authority and responsibility over how aircraft are operated, and that the County has no ability to direct or control aircraft in flight, and that choosing the safest runway for airport operation is entirely the decision of the PIC".

<u>Prohibited and Discouraged Uses:</u> The applicant does not propose any uses prohibited or discouraged in Compatibility Zones B1, C, and D. The Event:

- does not propose any new buildings or structures that would be considered an obstacle obstruction and a hazard to flight,
- does not propose any basins or water features that could attract hazardous wildlife,
- does not propose any lighting that could be associated with airport operations (also conditioned to keep any lighting downward facing and hooded/shielded), and
- will contain fuel in Zone B1 which will be kept less than 6,000 gallons aboveground storage and fueling will take place within the existing fueling island in Zone C, which is consistent with the compatibility criteria.

<u>Emergency Services:</u> The Event will have the following team of operational staff and emergency response on hand:

- 4 full-time traffic control guards,
- Fire department will have AMR on site with mobile hospital,
- Indycar will provide emergency response to fires on track, and
- Full-time 24/7 security armed and unarmed will provide security for the event, which is currently used at Thermal Motorclub (each shift has a minimum 3 security guards, with an additional 4 security officers per day to cover the Event).

The Event also has an Emergency Plan for all medical related incidents which would provide ontrack extrication and rescue when needed, assist medical personnel in the care of drivers, crews, and officials, and initiate the medical aspect of accident/injury investigation and prevention. Indycar will have a Medical Director at the Event, 2 EMTs, and 1 medical liaison. Thermal Motorclub will also have 3 additional ambulances staffed with AMR personnel for non-track related medical needs, as well as 2 Riverside County Sheriff's Deputies. Medical evacuation via helicopter via REACH will also be provided for life flight.

<u>Part 77</u>: The elevation of Runway 17-35 at its southerly terminus is -137.5 feet below mean sea level (MSL]). At a distance of approximately 4,700 feet from the southerly terminus of the runway) to the site, Federal Aviation Administration (FAA) review would be required for any structures with top of roof elevation exceeding -90.5 feet MSL. The site elevation is approximately -146 feet MSL. The

site elevation is -136 feet MSL and the proposed Event structures (bleacher seating) are 40 feet in height, resulting in a top point elevation of -96 feet MSL. Therefore, review by the FAA Obstruction Evaluation Service is not required. Although the Event does not technically exceed the FAA OES threshold, due to the significant nature of the Event, it was recommended that an application was filed with the FAA OES.

The applicant has submitted Form 7460-1 and the FAA OES has assigned Aeronautical Study Nos. 2023-AWP-19936-OE through 2023-19941-OE to this project. Determinations of No Hazard to Air Navigation letters were issued by the FAA OES on December 8, 2023, and it was determined that the temporary structure would not result in an impact to air navigation. The FAA OES conditions have been incorporated into the ALUC's conditions.

<u>Noise:</u> The Jacqueline Cochran Regional Airport Land Use Compatibility Plan depicts the Event as being located within the 55 - 60 CNEL contour range from aircraft noise. Outdoor spectator sports are identified as 'normally acceptable' within this contour range from aircraft noise. It is also likely that the noise generated by the race will be louder for the people on the ground than the noise generated by the aircraft (and thus masking its impacts).

<u>Open Area:</u> The ALUC open area criterion was previously addressed with the original Thermal Motorclub project, when it was determined that the track and its surroundings provided sufficient open land to meet the requirements of all of the development northerly of 62nd Avenue.

<u>Hazards to Flight:</u> Land use practices that attract or sustain hazardous wildlife populations on or near airports significantly increase the potential of Bird Aircraft Strike Hazards (BASH). The FAA strongly recommends that storm water management systems located within 5,000 or 10,000 feet of the Airport Operations Area, depending on the type of aircraft, be designed and operated so as not to create above-ground standing water. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. All vegetation in and around detention basins that provide food or cover for hazardous wildlife should be eliminated. (FAA Advisory Circular 5200-33C). Although the nearest portion of the proposed project is located within 10,000 feet of the runway (approximately 4,700 feet), the site is already developed, and the Event does not propose any basins or water features that would attract hazardous wildlife.

CONDITIONS (in the event of an overrule):

- 1. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing. Outdoor lighting plans, if any, shall be transmitted to Riverside County Transportation and Land Management Agency Aviation Division personnel and to the Jacqueline Cochran Regional Airport for review and comment. (Failure to comment within thirty days shall be considered to constitute acceptability on the part of the airport manager.)
- 2. The following uses shall be prohibited:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final

- approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
- (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
- (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, outdoor production of cereal grains, sunflower, and row crops, composting operations, wastewater management facilities, artificial marshes, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators).
- (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- (e) Children's schools, day care centers, libraries, hospitals, nursing homes, places of worship, buildings with more than two aboveground habitable floors, critical community infrastructure facilities, and aboveground bulk storage of 6,000 gallons or more of flammable or hazardous materials.
- (f) Highly noise-sensitive outdoor nonresidential uses.
- (g) Any use which results in a hazard to flight, including physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations.
- 3. No drones or helicopters shall be permitted (other than emergency medical helicopters).
- 4. All emergency services and staffing provisions as identified in the project description shall be adhered to.
- 5. Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention period following the design storm, and remain totally dry between rainfalls. Vegetation in and around the basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the basin(s) shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the stormwater basin, if not rip-rap, should be in accordance with the guidance provided in ALUC "LANDSCAPING NEAR AIRPORTS" brochure, and the "AIRPORTS, WILDLIFE AND STORMWATER MANAGEMENT" brochure available at <u>RCALUC.ORG</u> which list acceptable plants from Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign, in a form similar to that attached hereto, shall be permanently affixed to the

stormwater basin with the following language: "There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes". The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.

- 6. No use of the automobile racetrack for the purpose of spectator sports, in which guests pay for admission to an event or series of events, or to which the general public is invited, is included in this determination of consistency.
- 7. Occupancy of the 3rd floor of the Control Tower shall be limited to track control officials only or their designees.
- 8. No trees, light poles, utility poles, or any other object greater than four feet in height and thicker than four inches shall be allowed within designated open areas.
- 9. In the event that any glint, glare, or flash affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such glint, glare, or flash. An "event" includes any situation that results in an accident, incident, "near-miss," or specific safety complaint regarding an in-flight experience to the airport operator or to federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the incidence. Suggested measures may include, but are not limited to, changing the orientation and/or tilt of the source, covering the source at the time of day when events of glare occur, or wholly removing the source to diminish or eliminate the cause of the glint, glare, or flash. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.
- 10. In the event that any electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an event, the airport operator shall notify the project operator in writing. Within 30 days of written notice, the project operator shall be required to promptly take all measures necessary to eliminate such interference. An "event" includes any situation that results in an accident, incident, "nearmiss," report by airport personnel, or specific safety complaint to the airport operator or to federal, state, or county authorities responsible for the safety of air navigation. The project operator shall work with the airport operator to prevent recurrence of the event. For each such event made known to the project operator, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.
- 11. In the event that wildlife activity is observed as a result of the presence of the irrigation reservoir on-site, upon notification to the airport operator [currently the Riverside County Transportation and Land Management Agency], the airport operator shall notify Thermal Operating Company, LLC (or its successor(s)-in-interest) (Hereafter referred to as "Owner") in writing. Within 15 days of written notice, the Owner shall be required to promptly take all measures necessary to eliminate such wildlife activity, including, if necessary, but not limited

to, the emptying of the reservoir and repair or replacement of the netting material. The Owner shall work with the airport operator to prevent recurrence of the wildlife activity. Suggested measures may include providing for scheduled joint inspections of the reservoir by representatives of the Owner and the airport operator to assure that the cables and netting material continue to prevent access to the water. For each such incidence made known to the Owner, the necessary remediation shall only be considered to have been fulfilled when the airport operator states in writing that the situation has been remediated to the airport operator's satisfaction.

- 12. All conditions associated with the original Thermal Motorclub entitlements, and its subsequent revisions, are still valid.
- 13. The Federal Aviation Administration has conducted an aeronautical study of the proposed project (Aeronautical Study Nos. 2023-AWP-19936-OE through 2023-19941-OE) and has determined that neither marking nor lighting of the structure is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with FAA Advisory Circular 70/7460-1 M and shall be maintained in accordance therewith for the life of the project.
- 14. The proposed building shall not exceed a height of 40 feet above ground level and a maximum elevation at top point of -96 feet above mean sea level.
- 15. The maximum height and top point elevation specified above shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in structure height or elevation shall not require further review by the Airport Land Use Commission.
- 16. Temporary construction equipment used during actual construction of the structure(s) shall not exceed 40 feet in height and a maximum elevation of -96 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.
- 17. Within five (5) days after construction of the proposed building reaches its greatest height, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration. (Go to https://oeaaa.faa.gov for instructions.) This requirement is also applicable in the event the project is abandoned or a decision is made not to construct the applicable structure.

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NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY. THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES



F THIS BASIN IS OVERGROWN, PLEASE CONTAC	T:
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Name:	Phone:			



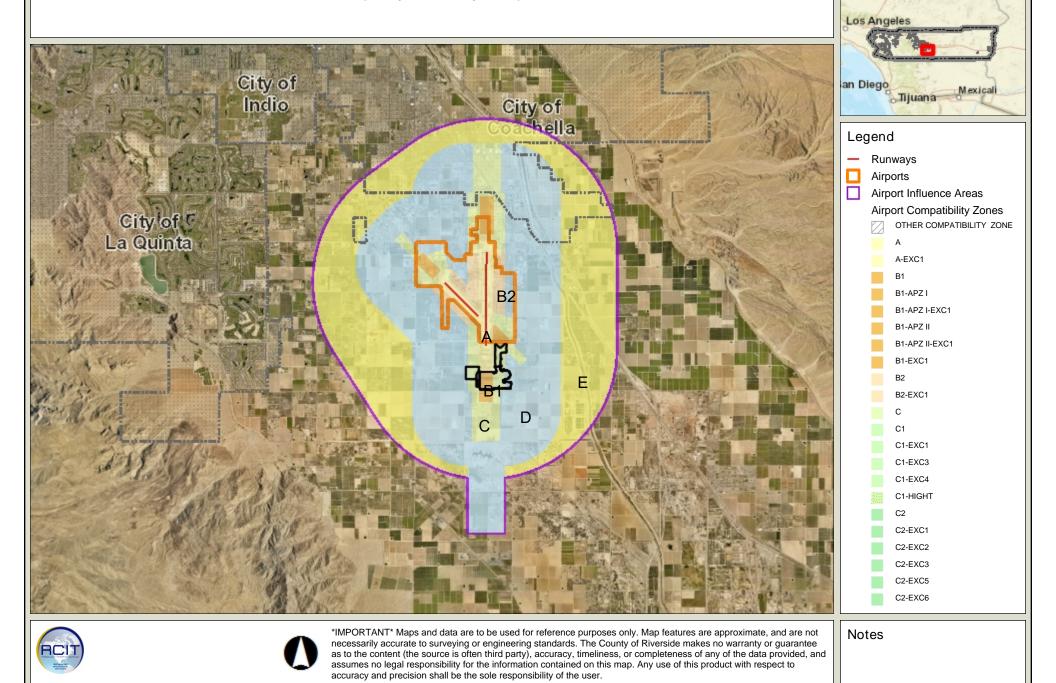
Jacqueline Cochran Regional Airport

10,000'

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Map My County Map Los Angeles an Diego Tijuana Legend Runways Airports Airport Influence Areas Airport Compatibility Zones OTHER COMPATIBILITY ZONE A-EXC1 B1-APZ I B1-APZ I-EXC1 B1-APZ II B1-APZ II-EXC1 B1-EXC1 B2-EXC1 C1-EXC1 **B1** C1-EXC3 C1-EXC4 C1-HIGHT C2-EXC1 C2-EXC2 C2-EXC3 C2-EXC5 C2-EXC6 *IMPORTANT* Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to Notes accuracy and precision shall be the sole responsibility of the user. 3,079 Feet REPORT PRINTED ON... 12/6/2022 1:09:40 PM © Riverside County GIS





Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
 World Street Map





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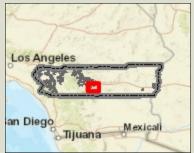
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Notes





Legend

City Areas
World Street Map





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Notes





Legend

- Blueline Streams
- City Areas
 World Street Map

Notes





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Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp Bl A Location: Thermal, CA

Latitude: 33-35-57.47N NAD 83

Longitude: 116-09-14.69W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Air Missions (NOTAM).

If you have any questions, please contact our office at (847) 294-7575, or vivian.vilaro@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AWP-19936-OE

Signature Control No: 605403666-606698144

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19936-OE

Proposal: To construct and/or operate a(n) Temp Bl A to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.66 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

It is required that the manager of JACQUELINE COCHRAN RGNL, (951) 955-9418 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

This determination expires on 06/08/2025 unless extended, revised, or terminated by the issuing office.

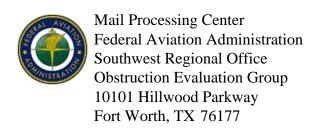
NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2023-AWP-19936-OE



Sectional Map for ASN 2023-AWP-19936-OE





Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp Bl B Location: Thermal, CA

Latitude: 33-35-56.48N NAD 83

Longitude: 116-09-14.67W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of a structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Air Missions (NOTAM).

If you have any questions, please contact our office at (847) 294-7575, or vivian.vilaro@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AWP-19937-OE

Signature Control No: 605403668-606698145

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19937-OE

Proposal: To construct and/or operate a(n) Temp Bl B to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.68 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

It is required that the manager of JACQUELINE COCHRAN RGNL, (951) 955-9418 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

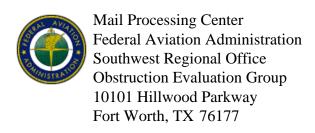
This determination expires on 06/08/2025 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2023-AWP-19937-OE







Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp Bl C Location: Thermal, CA

Latitude: 33-35-56.48N NAD 83

Longitude: 116-09-23.12W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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This determination did not include an evaluation of the permanent structure associated with the use of this temporary structure. If the permanent structure will exceed Title 14 of the Code of Federal Regulations, part 77.9, a separate aeronautical study and FAA determination is required.

This determination concerns the effect of this temporary structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Aviation Administration Flight Procedures Office if the structure is subject to the issuance of a Notice To Air Missions (NOTAM).

If you have any questions, please contact our office at (847) 294-7575, or vivian.vilaro@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AWP-19938-OE

Signature Control No: 605403669-606698148

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19938-OE

Proposal: To construct and/or operate a(n) Temp Bl C to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.66 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

It is required that the manager of JACQUELINE COCHRAN RGNL, (951) 955-9418 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

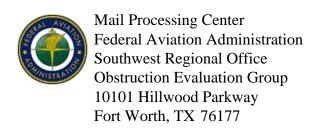
This determination expires on 06/08/2025 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2023-AWP-19938-OE







Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp Bl D Location: Thermal, CA

Latitude: 33-35-56.48N NAD 83

Longitude: 116-09-29.03W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

SEE ATTACHMENT FOR ADDITIONAL CONDITION(S) OR INFORMATION

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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Signature Control No: 605403674-606698147

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19939-OE

Proposal: To construct and/or operate a(n) Temp Bl D to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.66 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

Based on this aeronautical study, the structure would not constitute a substantial adverse effect on aeronautical operations or procedures because it will be temporary. The temporary structure would not be considered a hazard to air navigation provided all of the conditions specified in this determination are strictly met.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

It is required that the manager of JACQUELINE COCHRAN RGNL, (951) 955-9418 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

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TOPO Map for ASN 2023-AWP-19939-OE







Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp Bl E Location: Thermal, CA

Latitude: 33-35-57.47N NAD 83

Longitude: 116-09-29.03W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

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Signature Control No: 605403675-606698149

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19940-OE

Proposal: To construct and/or operate a(n) Temp Bl E to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.64 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

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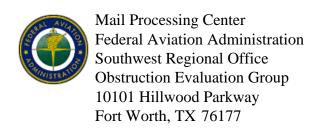
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TOPO Map for ASN 2023-AWP-19940-OE



Sectional Map for ASN 2023-AWP-19940-OE





Issued Date: 12/08/2023

Tim Rogers
Thermal Operating Company, LLC
c/o Tower Energy Group
1983 West 190th Street, Suite 100
Torrance, CA 90504

DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Temp B1 F Location: Thermal, CA

Latitude: 33-35-57.47N NAD 83

Longitude: 116-09-23.12W

Heights: -136 feet site elevation (SE)

40 feet above ground level (AGL) -96 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

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If you have any questions, please contact our office at (847) 294-7575, or vivian.vilaro@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AWP-19941-OE

Signature Control No: 605403676-606698146

(TMP)

Vivian Vilaro Specialist

Additional Condition(s) or Information for ASN 2023-AWP-19941-OE

Proposal: To construct and/or operate a(n) Temp Bl F to a height of 40 feet above ground level, -96 feet above mean sea level.

Location: The structure will be located 1.65 nautical miles south of TRM Airport reference point.

Part 77 Obstruction Standard(s) Exceeded and Aeronautical Impacts, if any:

Aeronautical study revealed that the temporary structure will not exceed any Part 77 obstruction standard. Aeronautical study confirmed that the temporary structure will have no effect on any existing or proposed arrival, departure or en route instrument/visual flight rules (IFR/VFR) operations or procedures. Additionally, aeronautical study confirmed that the temporary structure will have no physical or electromagnetic effect on the operation of air navigation and communications facilities and will not impact any airspace and routes used by the military. Based on this aeronautical study, the FAA finds that the temporary structure will have no adverse effect on air navigation and will not impact any aeronautical operations or procedures.

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It is required that the manager of JACQUELINE COCHRAN RGNL, (951) 955-9418 be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

This determination expires on 06/08/2025 unless extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

TOPO Map for ASN 2023-AWP-19941-OE



Sectional Map for ASN 2023-AWP-19941-OE



Rull, Paul

From: Jamison, Angela

Sent: Friday, December 8, 2023 11:09 AM

To: Rull, Paul

Subject: RE: ZAP1078TH23 Thermal Motorclub Indycar Temporary Special Event

Hi Paul,

The ALUCP is the fundamental tool used to promote airport land use compatibility in the immediate vicinity of airports. Consistent with State law, the ALUCP ensures compatibility between the airport and surrounding land uses to protect the public health, safety and welfare in areas around the airport. Airport staff recommends that all approved land uses be consistent with ALUCP guidance and conditions to protect the airport now and in the future, and to minimize risk to reasonable levels by ensuring low density/intensity of use in the immediate vicinity of the airport in the unlikely event of an aircraft accident.

We understand that there is a proposal to move Jacqueline Cochran Regional Airport traffic from Runway 17/35 to Runway 12/30 for the duration of the proposed special event. It's important to know that in 1958 Congress gave the FAA (Federal Aviation Administration) exclusive authority to regulate aircraft in flight. Federal law also gives the Pilot in Command (PIC) final authority and responsibility over how aircraft are operated. The County has no ability to direct or control aircraft in flight. Choosing the safest runway for airport operation is entirely the decision of the PIC.

Angela Jamison

County Airport Manager

Riverside County TLMA-Aviation Division (951) 955-9418 Office (951) 529-8195 Cell ajamison@rivco.org



From: Rull, Paul < PRull@RIVCO.ORG>

Sent: Wednesday, December 6, 2023 8:26 AM **To:** Jamison, Angela <AJamison@Rivco.org>

Subject: RE: ZAP1078TH23 Thermal Motorclub Indycar Temporary Special Event

Good Morning Angie,

I am in the process of finalizing my staff report for the Indycar Special Event, which is due next Thursday (for the January 11 hearing). Are you able to provide your comments so I can share them with the Commission? Thanks.

THERMAL RACETRACK - 2024 INDYCAR SPECIAL EVENT – PROJECT DESCRIPTION

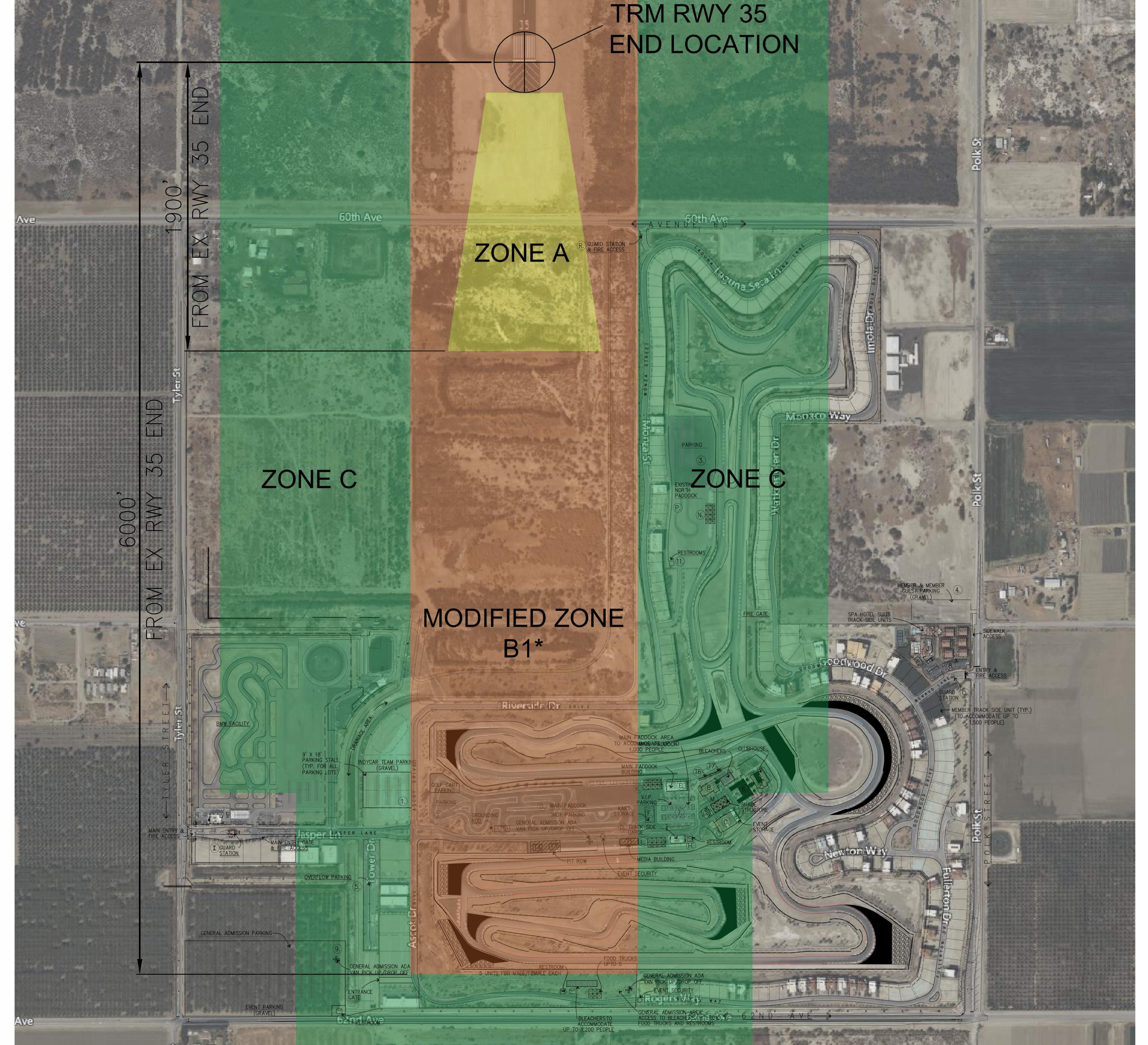
THERMAL CLUB IS PROPOSING A TIER VI SPECIAL EVENT FOR NTT INDYCAR SERIES TO INCLUDE PRE-SEASON TESTING AND SPRINT RACES. THE EVENT WILL TAKE PLACE FROM MARCH 22ND TO MARCH 24TH 2024 FROM 8AM- 4PM. PRACTICE RACES, TESTING AND QUALIFICATIONS WILL TAKE PLACE MARCH 22ND-23RD WITH THE SPRINT SERIES RACES WILL TAKING PLACE MARCH 24TH. UP TO 26 VEHICLES WILL RACE ON THE TRACK AT ONE TIME, WHICH IS CONSISTENT WITH THE CURRENT USE. THERE WILL BE UP TO 3,500 PEOPLE IN ATTENDANCE, INCLUDING STAFF AND RACERS. UP TO 1,200 TICKETS ARE ANTICIPATED TO BE SOLD. THE BLEACHER SUITES AS WELL AS THE PADDOCK AREA WILL ACCOMMODATE UP TO 1,200 PEOPLE, AND THE 80 TRACKSIDE UNITS PLUS 48 SPA CASITAS WILL ACCOMMODATE UP TO 1,500 PEOPLE. 800 STAFF AND RACERS WILL BE DISTRIBUTED THROUGHOUT THE EVENT.

THE EVENT WILL BE TELEVISED WITH ON-TRACK CAMERAS (TO BE COORDINATED SEPARATELY BY THE NETWORK). FOOD AND LIVE MUSIC WILL PROVIDE ENTERTAINMENT IN THE EVENT CENTER DURING THE HOURS OF 8AM-4PM. FOOD TRUCKS AND RESTROOMS WILL BE BROUGHT ON SITE IN THE SOUTHWEST CORNER, IN THE VICINITY OF THE TEMPORARY BLEACHERS.

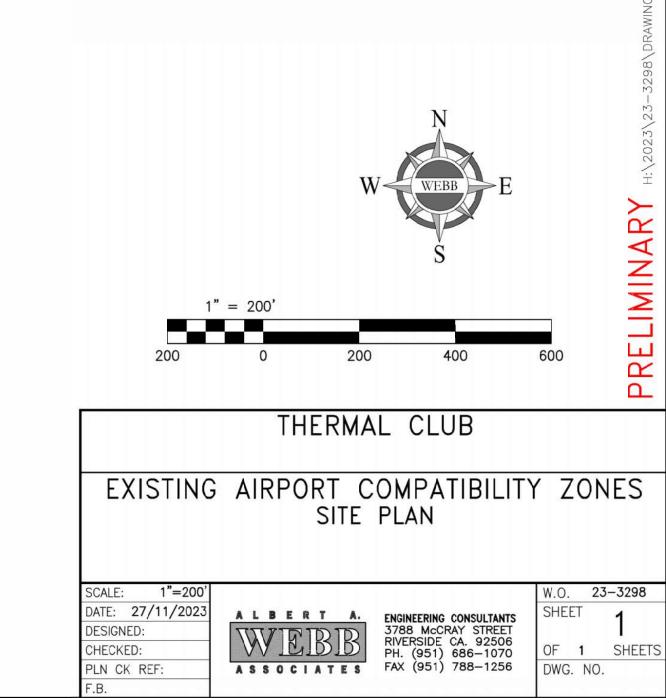
APPROXIMATELY 80 TRACKSIDE UNITS PLUS 48 HOTEL SUITES HAVE BEEN COMPLETED AND OCCUPIED. EACH TRACKSIDE UNIT CONTAIN KITCHEN AND RESTROOM FACILITIES. MEMBERS WHO OCCUPY THESE UNITS ALONG WITH THEIR GUESTS WILL SPEND TIME WITHIN THE UNIT OR AT THE PADDOCK AREA (MAXIMUM OF 15 PADDOCK PASSES PER OCCUPIED UNIT). MEMBERS AND GUESTS FROM THE OCCUPIED UNITS WILL PARK AT THE UNIT, REDUCING DEMAND IN DESIGNATED PARKING AREAS. THE SPA INCLUDES A RESTAURANT TO SERVE HOTEL SUITE GUESTS. HOTEL SUITE GUESTS WILL PARK AT THE SPA. THE BLEACHER AREA WILL ALLOW FAN ACCESS TO PIT ROW, BLEACHER SUITES, FOOD TRUCK AND RESTROOM AREAS.

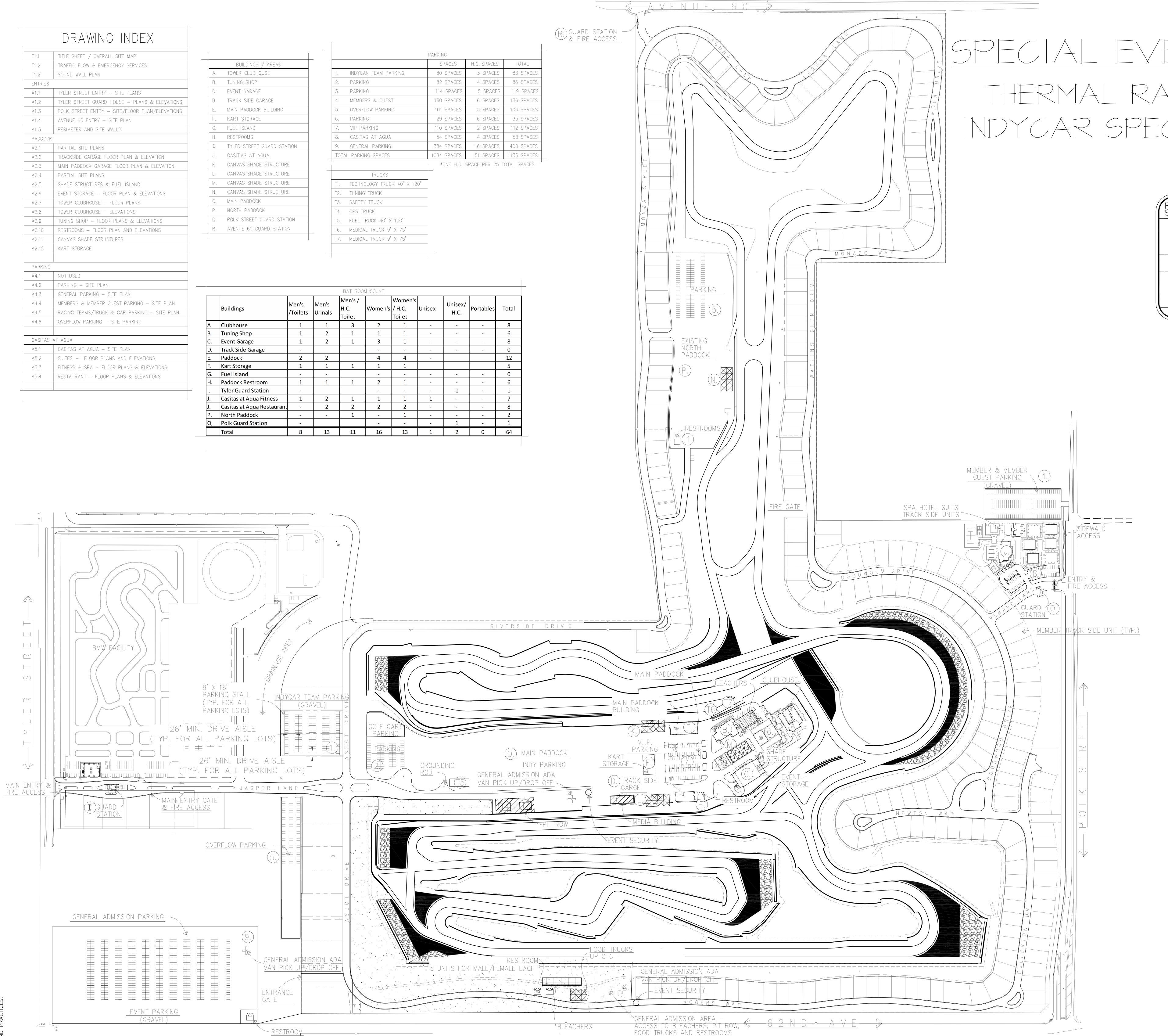
FOUR (4) 12-15 PASSENGER SPRINTER VANS WILL BE PROVIDED FOR SPECIAL EVENT TRANSPORTATION TO AND FROM THE SPA CASITA AREA, TRACKSIDE UNITS, PADDOCK AREA, AND PARKING LOTS. VIP PARKING WILL BE AVAILABLE WITHOUT SPRINTER VAN TRANSPORTATION REQUIRED. TWENTY (20) FULL-TIME GUARDS WILL PROVIDE TRAFFIC CONTROL AND SECURITY DURING EVENT HOURS. STAFF WILL ARRIVE THROUGH THE TYLER STREET ENTRANCE BETWEEN 6-7AM. UP TO 2,000 GUESTS WILL PARK IN THE LOT PROVIDED AT AVENUE 62 AND TYLER, ENTERING THROUGH THE BLEACHER AREA ALONG AVENUE 62. THE REMAINING 3,000 MEMBER AND GUESTS WILL ARRIVE THROUGH THE TYLER AND POLK ENTRANCES. GRAVEL WILL BE PROVIDED IN UNPAVED PARKING AREAS FOR DUST MITIGATION, WHICH WILL ACCOMMODATE THE WEIGHT OF A FIRETRUCK.

THE FIRE DEPARTMENT WILL HAVE AMR ON SITE WITH A MOBILE HOSPITAL. INDYCAR WILL PROVIDE EMERGENCY RESPONSE TO FIRES ON TRACK. FULL TIME 24/7 SECURITY (ARMED AND UNARMED) WILL PROVIDE SECURITY FOR THE EVENT, CONSISTENT WITH THE CURRENT USE.

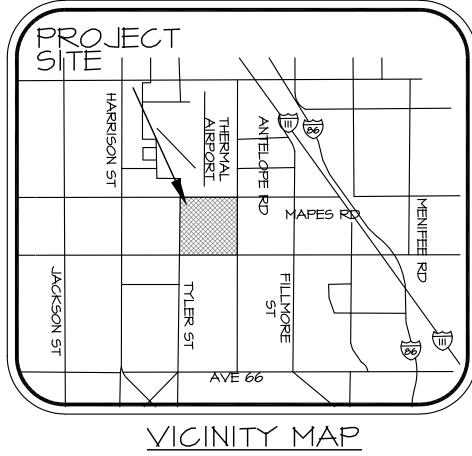


*MODIFIED ZONE B1 IS BASED ON EXISTING RUNWAY 35 END LOCATION





SPECIAL EVENT EXHIBIT THERMAL RACETRACK INDYCAR SPECIAL EVENT



COMPANY: JTM LAND COMPANY, LLC ADDRESS: 1983 W. 190TH ST., STE. 100, TORRANCE, CA 90504 PHONE: (760) 799-5106

ATT. TIM ROGERS <u>APPLICANT</u>

COMPANY: THERMAL CLUB ADDRESS: 61980 TYLER ST., THERMAL, CA 92274 PHONE: (760) 674-0088

ATT. TIM ROGERS

LEGAL DESCRIPTION

PARCEL I AND PARCEL 6 OF PARCEP MAP 36315, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 232 PAGES 89 THROUGH 96, INCLUSIVE, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID

759-180-013, 759-190-013, 759-300-009, 759-300-027

LAND USE / ZONING:

EXISTING AND PROPOSED LAND USE: MIXED USE (MU), OPEN SPACE (OS) EXISTING AND PROPOSED ZONING: SPECIFIC PLAN NO. 303

PROJECT DESCRIPTION:

ACCOMMODATE UP TO 1,500 PEOPLE.

THERMAL CLUB IS PROPOSING A TIER VI SPECIAL EVENT FOR NTT INDYCAR SERIES TO INCLUDE PRE- SEASON TESTING AND SPRINT RACES. THE EVENT WILL TAKE PLACE FROM MARCH 22ND TO MARCH 24TH 2024 FROM 8AM- 4PM. PRACTICE RACES, TESTING AND QUALIFICATIONS WILL TAKE PLACE MARCH 22ND-23RD WITH THE SPRINT SERIES RACES WILL TAKING PLACE MARCH 24TH. UP TO 26 VEHICLES WILL RACE ON THE TRACK AT ONE TIME, WHICH IS CONSISTENT WITH THE CURRENT USE. THERE WILL BE UP TO 3,500 PEOPLE IN ATTENDANCE, INCLUDING STAFF AND RACERS. UP TO 1,200 TICKETS ARE ANTICIPATED TO BE SOLD. THE VIEWING AREA IN THE PADDOCK WILL ACCOMMODATE UP TO 1,500 PEOPLE. BLEACHER SUITES WITH SHADE WILL ACCOMMODATE UP TO 2,000 PEOPLE AND 80 TRACKSIDE UNITS PLUS 48 HOTEL SUITES WILL

THE EVENT WILL BE TELEVISED WITH ON-TRACK CAMERAS (TO BE COORDINATED SEPARATELY BY THE NETWORK). FOOD AND LIVE MUSIC WILL PROVIDE ENTERTAINMENT IN THE EVENT CENTER DURING THE HOURS OF 8AM-4PM. FOOD TRUCKS AND RESTROOMS WILL BE BROUGHT ON SITE IN THE SOUTHWEST CORNER, IN THE VICINITY OF THE TEMPORARY BLEACHERS.

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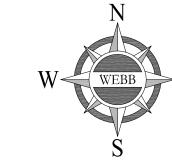
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GRAVEL WILL BE PROVIDED IN UNPAVED PARKING AREAS FOR DUST

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THE EVENT, CONSISTENT WITH THE CURRENT USE.

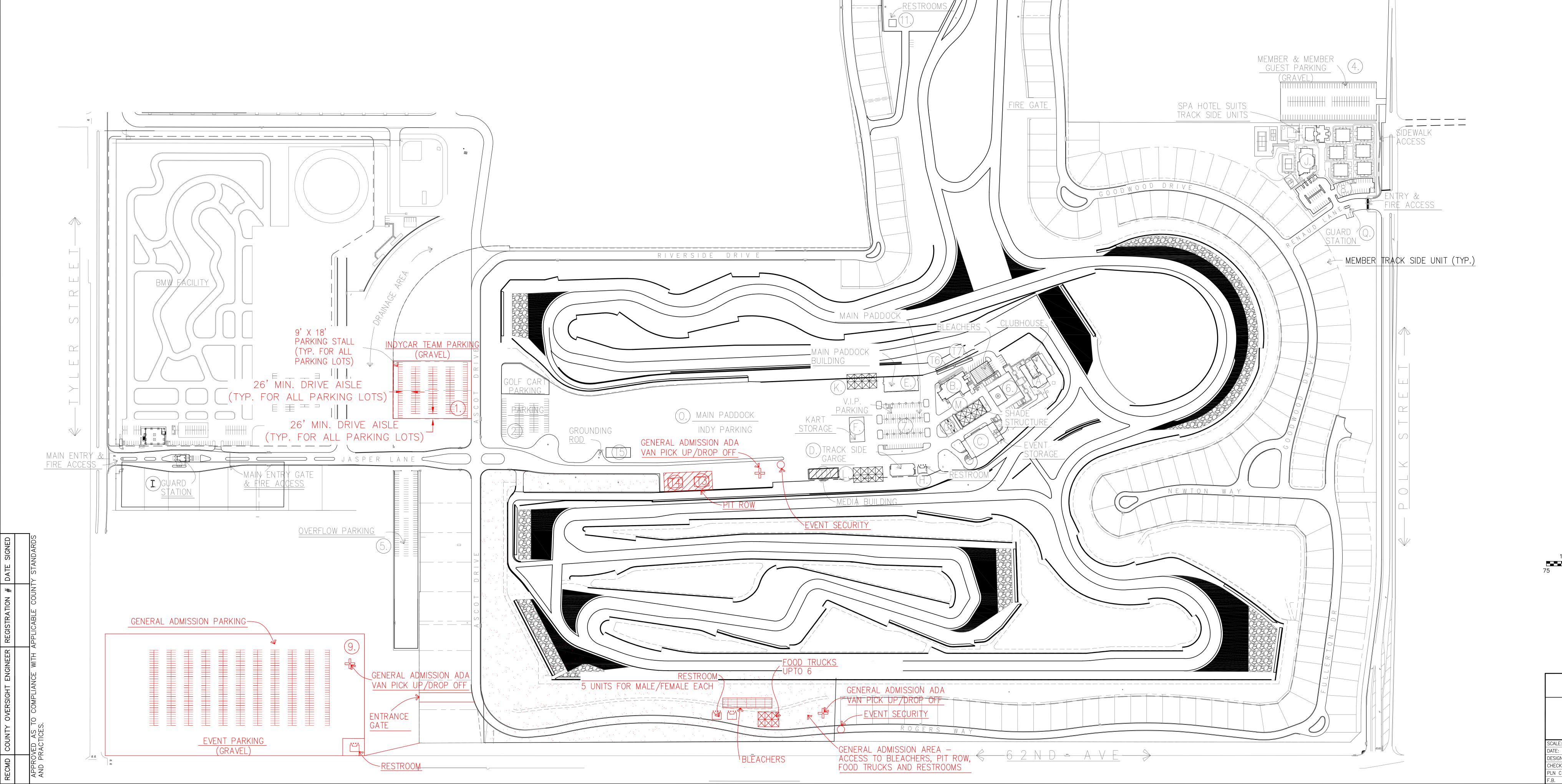
SPECIAL EVENT EXHIBIT CITY OF THERMAL THERMAL CLUB INDYCAR EVENT ____ THERMAL SITE EVENT MAP



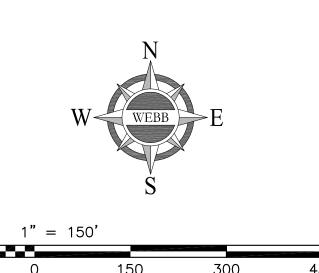
SPECIAL EVENT EXHIBIT THERMAL RACETRACK 2024 INDYCAR SPECIAL EVENT

2023 EVENT

CHANGES FROM 2023 EVENT



R. GUARD STATION -& FIRE ACCESS



SPECIAL EVENT EXHIBIT
CITY OF THERMAL

THERMAL CLUB INDYCAR EVENT

THERMAL SITE
EVENT MAP





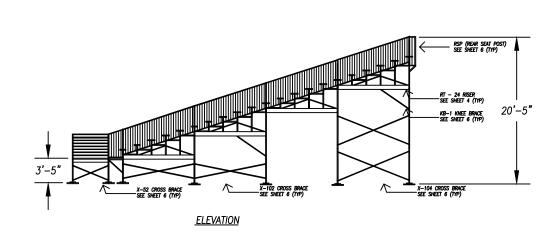
NO DATE

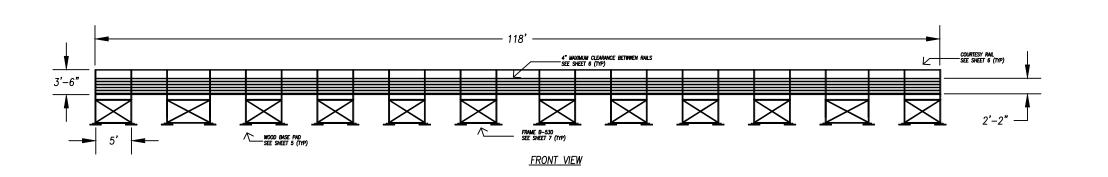


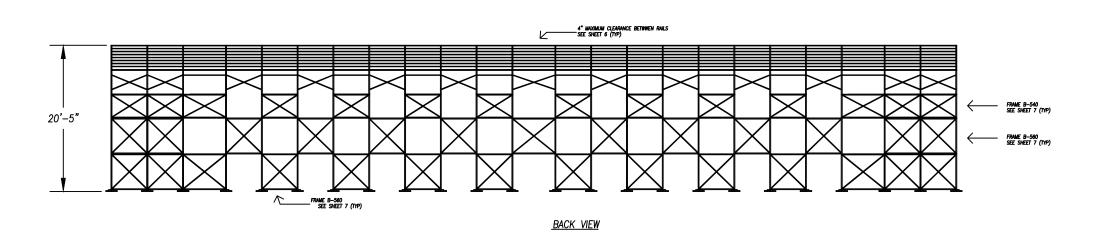


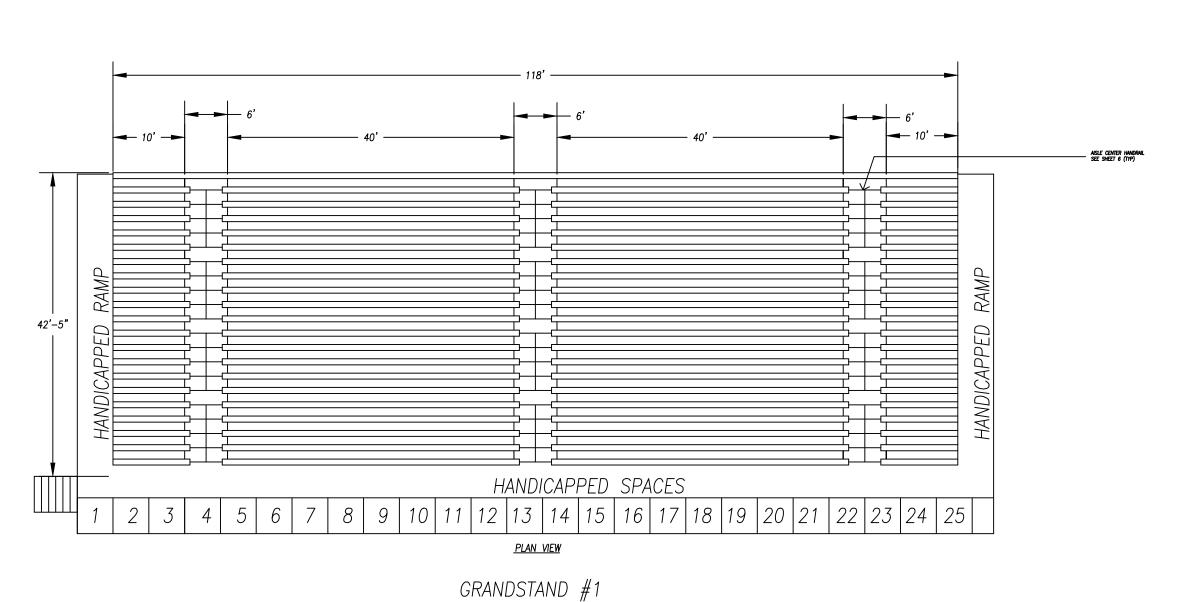


GS1









FORWARD OR REAR ACCESS

CALIFORNIA DISABLED ACCESSIBILITY OCCUPANCY SPECIFIC REQUIREMENTS ACCESSIBILITY FOR GROUP A OCCUPANCIES

SPACE REQUIREMENTS FOR WHEELCHAIR SEATING SPACES IN SERIES

ACCESSIBLE PATH OF TRAVEL

→ 33" MIN →

ACCESSIBLE PATH OF TRAVEL

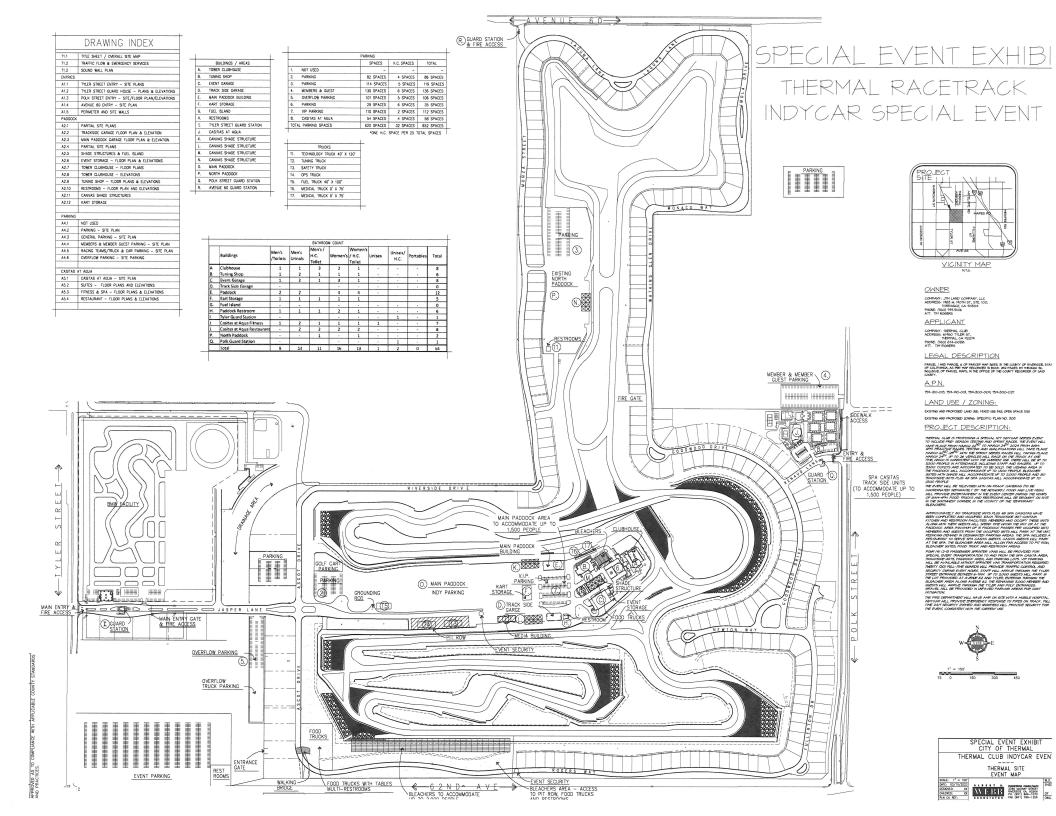
→ 33" MIN

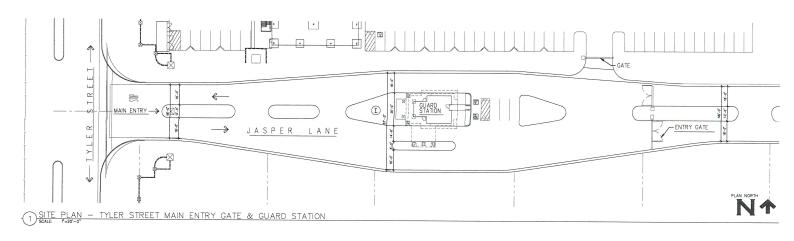
48" MIN

MINIMUM OF ONE COMPANION SEAT - NEXT TO EACH WHEELCHAIR SEATING SPACE

118' 42' (21 ROWS) DEPTH: AISLES: ELEVATED: STAIRCASES: 1 PLUS 2 RAMPS
GUARDRAIL: 4 SIDES
SEATING CAPACITY: 1476
HC SEATING: 25

LENGTH:





TYLER STREET ENTRY & GUARD STATION

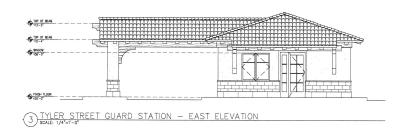
SPECIAL EVENT EXHIBIT
CITY OF THERMAL
THERMAL CLUB INDYCAR EVENT
TYLER STREET ENTRY



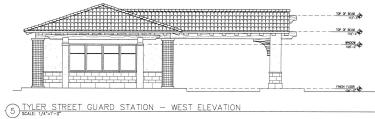




(2) TYLER STREET GUARD STATION - NORTH ELEVATION







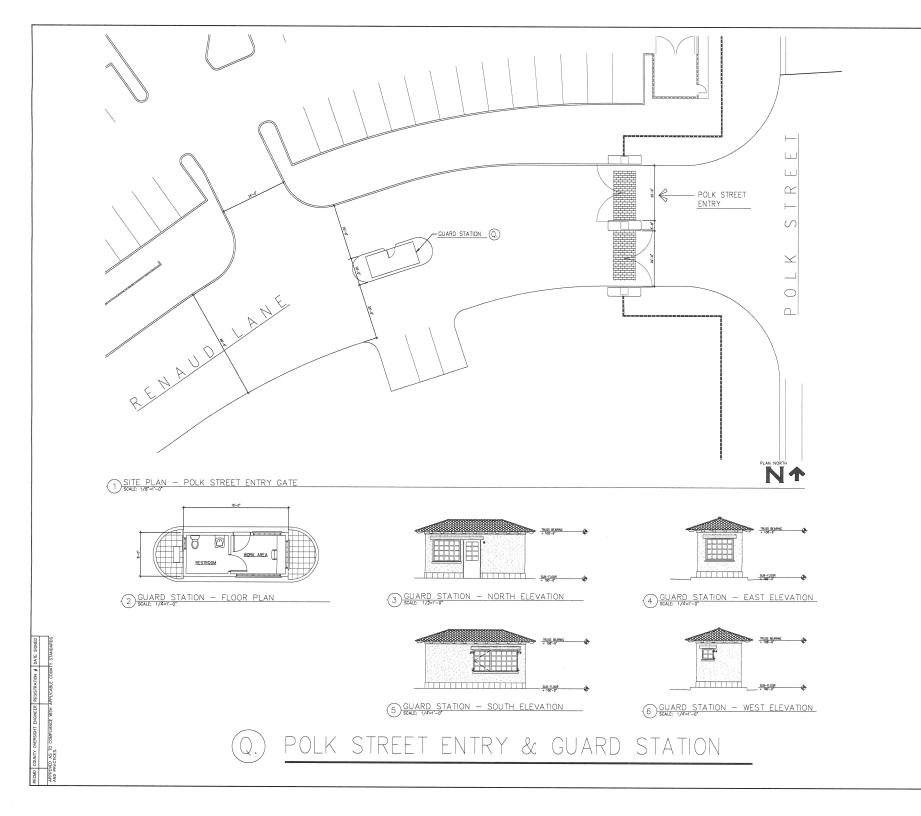
TYLER STREET GUARD STATION

TOTAL OCCUPANCY TOTAL: 3 OCCUPANTS









SPECIAL EVENT EXHIBIT
CITY OF THERMAL
THERMAL CLUB INDYCAR EVENT
POLK STREET ENTRY



R.) AVENUE 60 GUARD STATION

ECMD COUNTY OVERSIGHT ENGINEER REGISTRATION # DATE SIGNED
APPROVED AS TO COMPLIANCE WITH APPLICABLE COUNTY STANDARDS

SPECIAL EVENT EXHIBIT
CITY OF THERMAL
THERMAL CLUB INDYCAR EVENT
THERMAL AVE 60 ENTRY

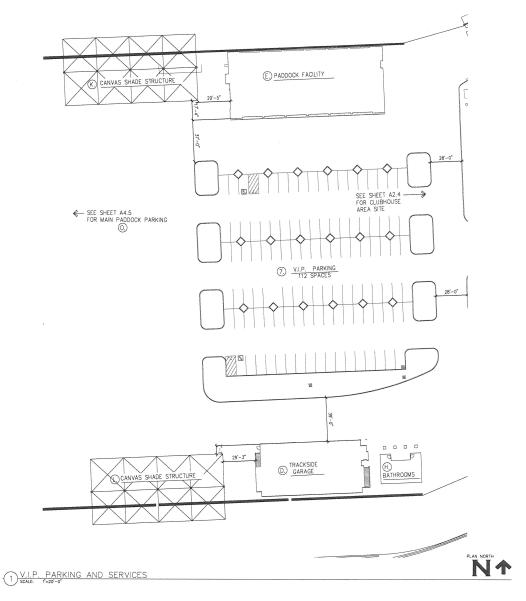




AVENUE 60, >

SPECIAL EVENT EXHIBIT CITY OF THERMAL THERMAL CLUB INDYCAR EVEN PERIMETER SITE WALLS





PARTIAL SITE / MAIN PADDOCK

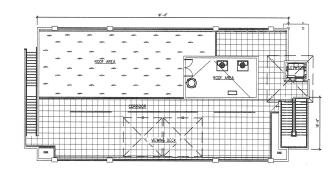
PARKING	
PARKING SPACES	106 SPACES
EMPLOYEE	5 SPACE
TOTAL PARKING SPACES	111 SPACES

SPECIAL EVENT EXHIBIT CITY OF THERMAL THERMAL CLUB INDYCAR EVENT
PARTIAL PADDOCK SITE PLAN

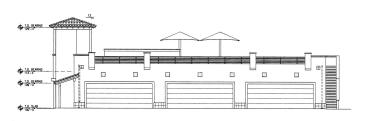


PRELIMINARY

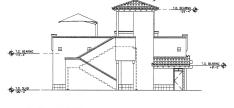




TRACKSIDE GARAGE - VIEWING DECK



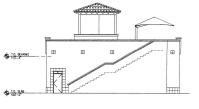
TRACKSIDE GARAGE - NORTH ELEVATION



TRACKSIDE GARAGE - EAST ELEVATION



TRACKSIDE GARAGE - SOUTH ELEVATION



6 TRACKSIDE GARAGE - WEST ELEVATION



TRACK SIDE GARAGE

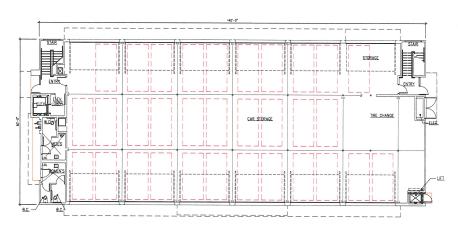


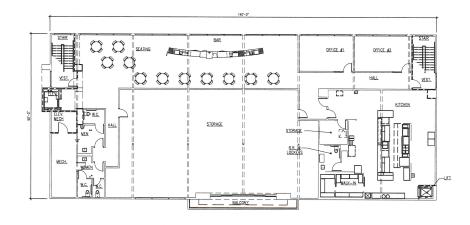
SPECIAL EVENT EXHIBIT CITY OF THERMAL THERMAL CLUB INDYCAR EVENT TRACKSIDE GARAGE





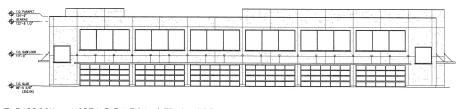






PADDOCK - LOWER LEVEL

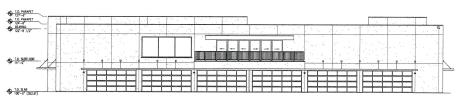
2 PADDOCK - UPPER LEVEL



10 400 9 5000 10 40 0 5000

PADDOCK - NORTH ELEVATION / TRACK SIDE

PADDOCK - EAST ELEVATION





5 PADDOCK - SOUTH ELEVATION / PADDOCK SIDE

6 PADDOCK - WEST ELEVATION

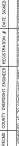


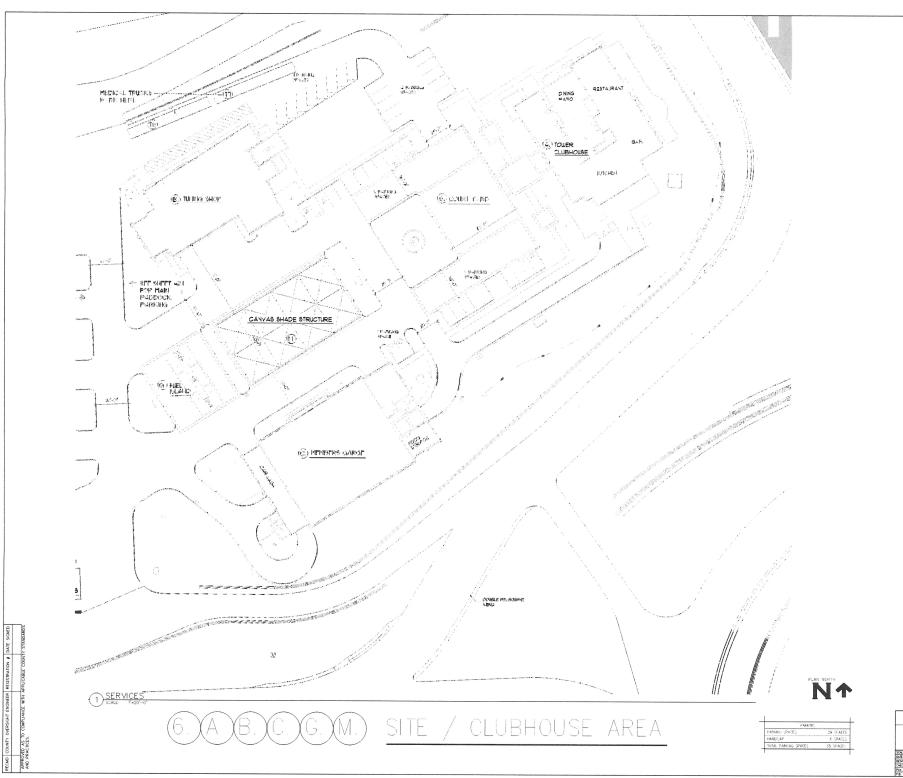
MAIN PADDOCK BUILDING







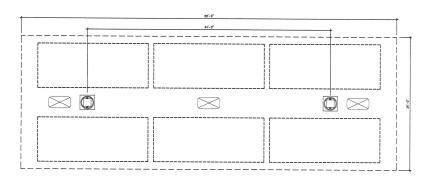




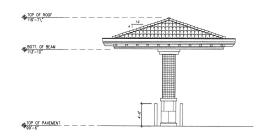
SPECIAL EVENT EXHIBIT CITY OF THERMAL THERMAL CLUB INDYCAR EVENT



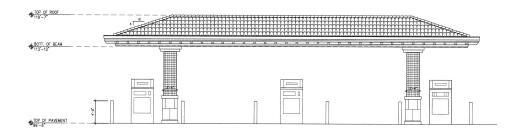




1 FUEL ISLAND - PLAN SCALE: 1/4"=1"-0"



FUEL ISLAND - END ELEVATIONS
SCALE: 1/4"=1"-0"



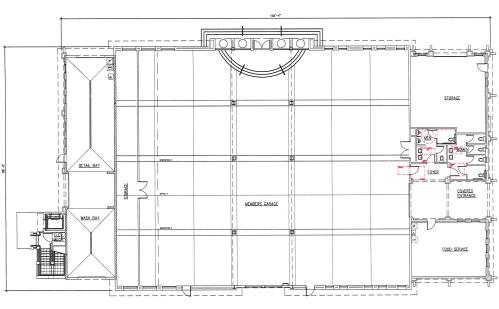
FUEL ISLAND - SIDE ELEVATIONS
SCALE: 1/4"=1"-0"

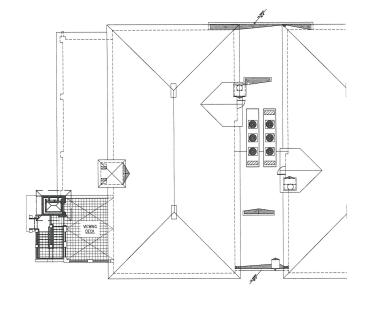


SPECIAL EVENT EXHIBIT
CITY OF THERMAL
THERMAL CLUB INDYCAR EVENT
FUEL ISLAND



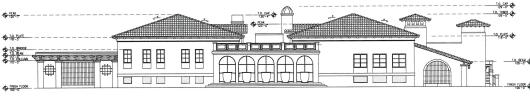




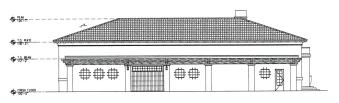


EVENT GARAGE - FLOOR PLAN

SCALE: 1/6"=1"-0"

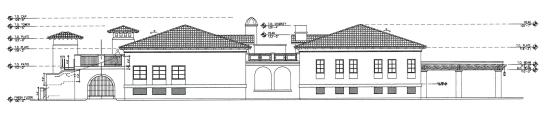


EVENT GARAGE - VIEWING DECK

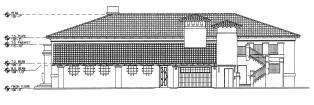


SCALE: 1/8"=1"-0"

SCALE: 1/8"=1"-0"



EVENT GARAGE - EAST ELEVATION



5 EVENT GARAGE - SOUTH ELEVATION

6 EVENT GARAGE - WEST ELEVATION



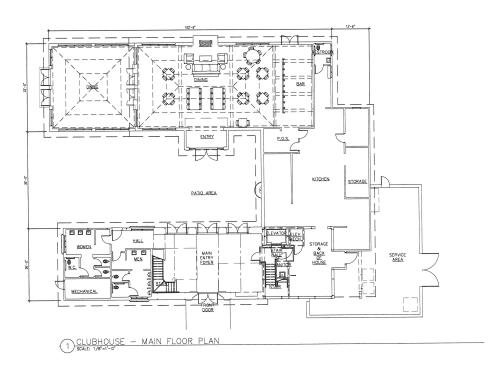
EVENT GARAGE

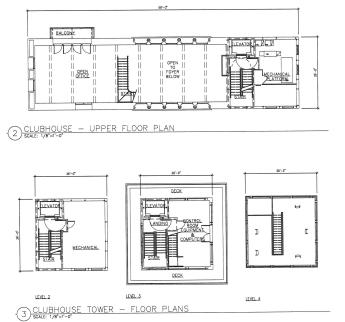




COUNTY OVERSIGHT ENGINEER
D AS TO COMPLIANCE WITH







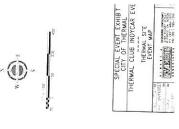
CLUBHOUSE

TOTAL OCCUPANCY
TOTAL: 235 OCCUPANTS

SPECIAL EVENT EXHIBIT
CITY OF THERMAL
THERMAL CLUB INDYCAR EVENT
CLUBHOUSE FLOOR PLANS

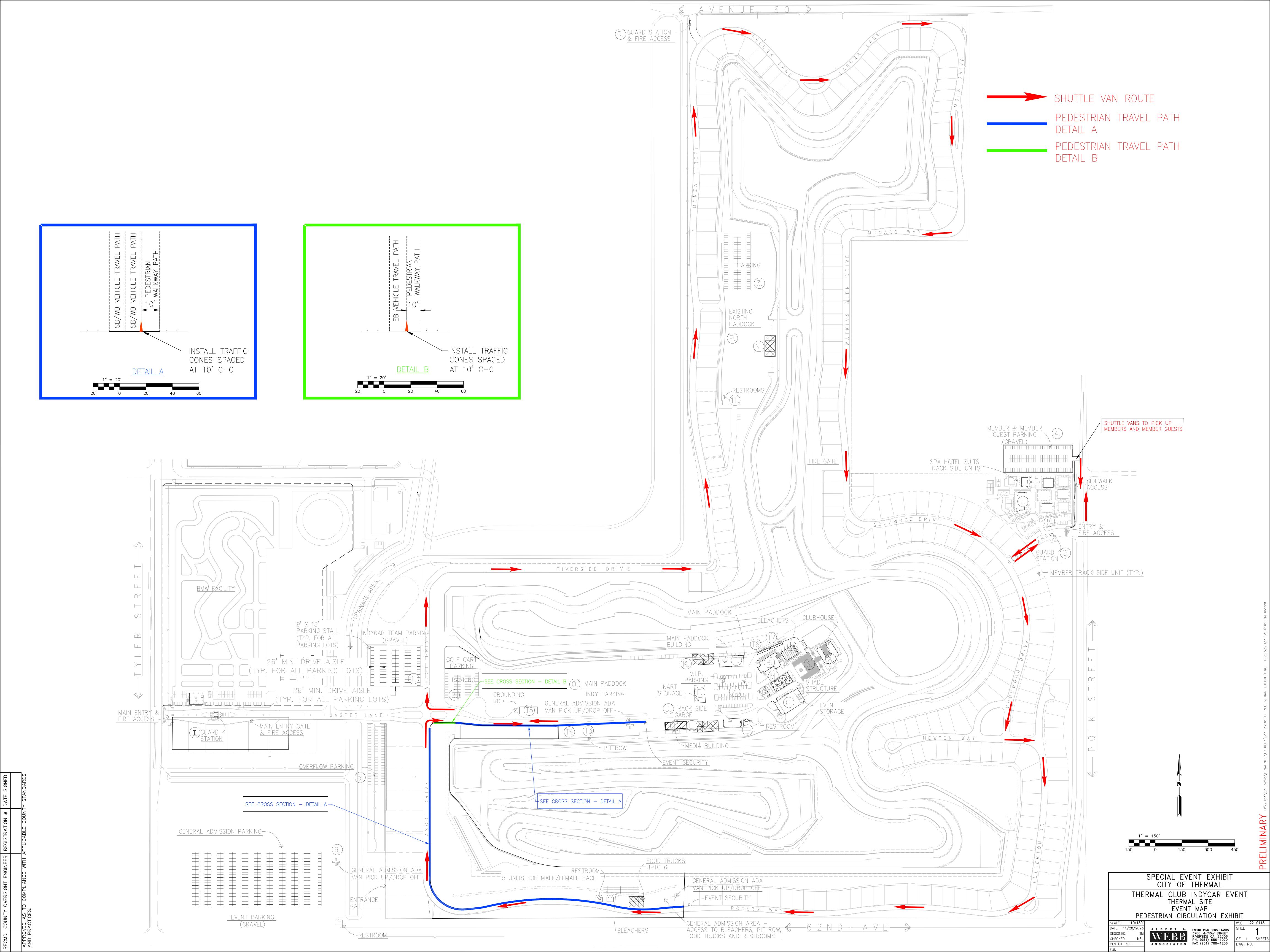






2024 NDYCAR SPECAL EVENT SPEC AL EVENT EXHIBIT MEMBER & GUESTS ONLY AREA GENERAL ACCESS AREA LEGEND

APPROVED AS TO COMPLIANCE WITH APPLICABLE COUNTY STANDARGS and PRACTICES.



INDYCAR SPECIAL EVENT March 22-24, 2024

THE THERMAL CLUB

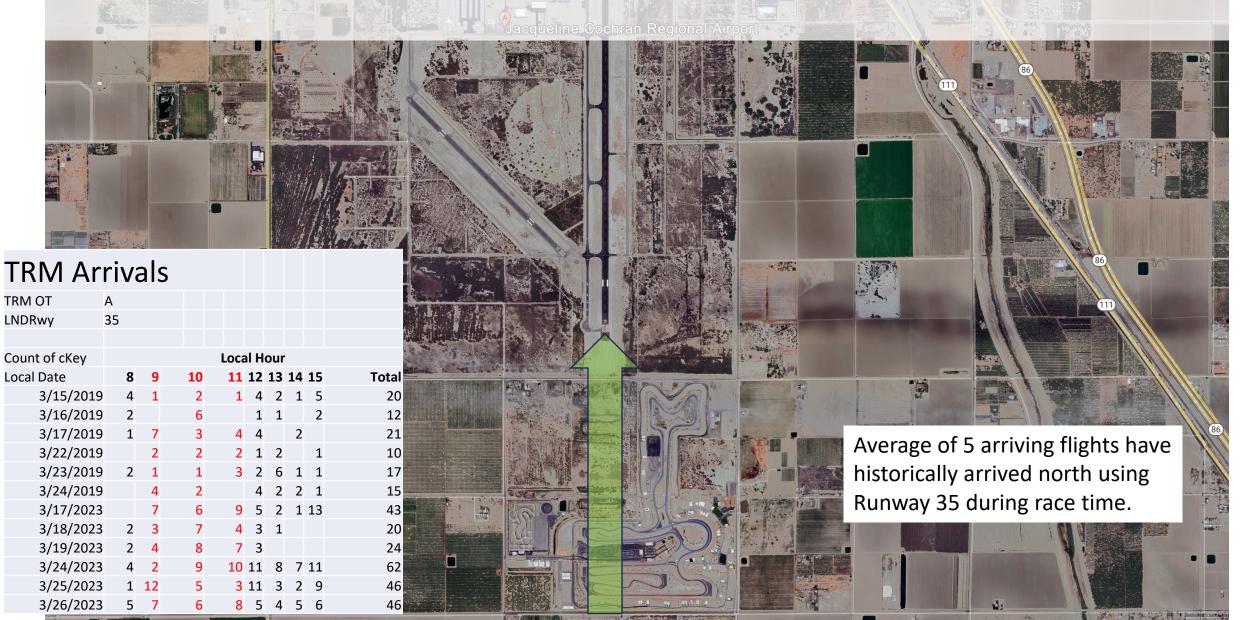
Jacqueline Cochran Regional Airport Compatibility

December 11, 2023

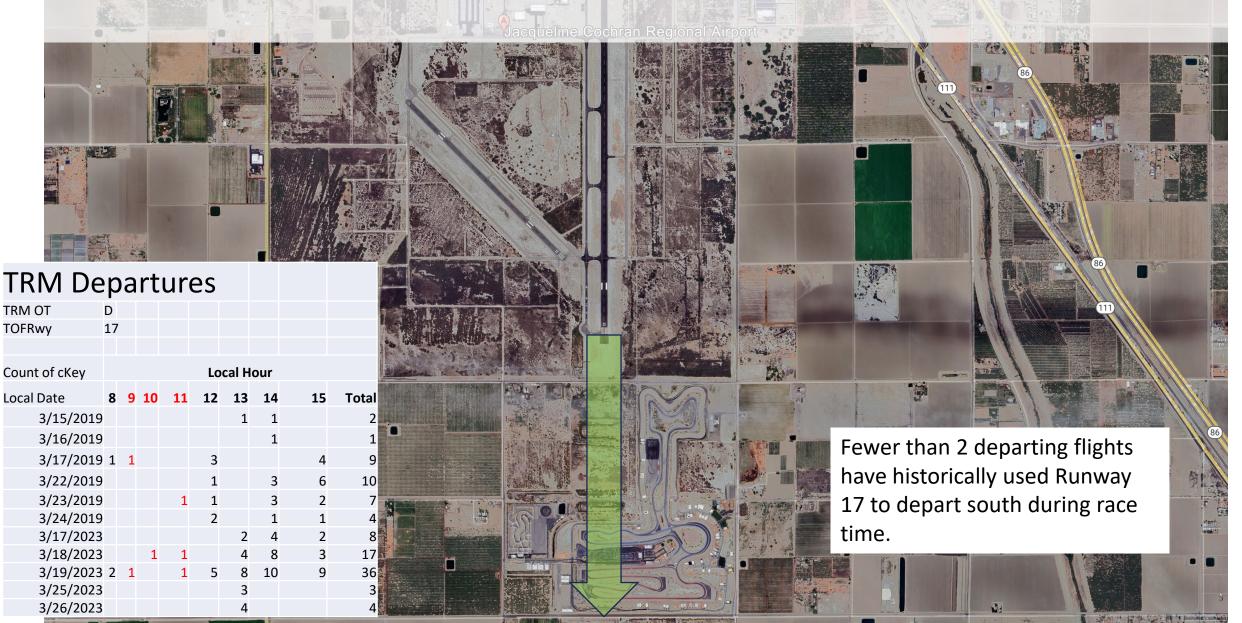
KTRM Aircraft Operations Analysis

- Collected FAA radar data for KTRM March weekend operations for 2019 and 2023
- Identified historical Runway 35 arrival flights over event site
- Identified historical Runway 17 departure flights over event site
- Assessed overflight potential during race time (9 am to 11 am)





Runway 17 March Weekend Departure Flights



NOTICE OF PUBLIC HEARING

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

www.rcaluc.org

A PUBLIC HEARING has been scheduled before the Riverside County Airport Land Use Commission (ALUC) to consider the applications described below.

Any person may submit written comments to the ALUC before the hearing or may appear and be heard in support of or opposition to the project at the time of hearing. Information on how to participate in the hearing will be available on the ALUC website at www.rcaluc.org. The ALUC holds hearings for local discretionary permits within the Airport Influence Area, reviewing for aeronautical safety, noise and obstructions. ALUC reviews a proposed plan or project solely to determine whether it is consistent with the applicable Airport Land Use Compatibility Plan. For more information please contact ALUC Planner Paul Rull at (951) 955-6893.

The County of Riverside Planning Department should be contacted on non-ALUC issues. For more information, please contact County of Riverside Planner Kathleen Mitchell at (951) 955-6836.

The proposed project application may be viewed by a prescheduled appointment and on the ALUC website www.rcaluc.org. Written comments may be submitted at the Riverside County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, California 92501, Monday through Friday from 8:00 a.m. to 3:30 p.m., or by e-mail to prull@rivco.org. Individuals with disabilities requiring reasonable modifications or accommodations, please contact Barbara Santos at (951) 955-5132.

PLACE OF HEARING: Riverside County Administration Center

4080 Lemon Street, 1st Floor Board Chambers

Riverside California

DATE OF HEARING: January 11, 2024

TIME OF HEARING: 9:30 A.M.

CASE DESCRIPTION:

ZAP1078TH23 – Thermal Operating Company, LLC (Representative: Albert A. Webb Associates) County of Riverside Case No. MTE230043 (Minor Temporary Event). A proposal for a Minor Temporary Event to host an IndyCar pre-season testing and sprint races, from March 22 to March 24, 2024, from 8:00 a.m. to 4:00 p.m. at the 139 acres Thermal Motorclub facility, located southerly of Avenue 60, westerly of Polk Street, northerly of Avenue 62, and easterly of Tyler Street. The Event proposes a maximum 3,500 people per day including staff, racers and general public. The Event will be open to the public with approximately 1,200 tickets sold to the general public (which directly conflicts with the underlying conditions of approval for the original Thermal Motorclub project). Approximately 1,200 people will occupy temporary bleacher seating and paddock viewing area, and approximately 1,500 people will occupy the 80 trackside units and 48 spa casitas, and approximately 800 people will make up staff and racers. Food and live entertainment will also be provided within the existing buildings. The Event will be televised with on-track cameras (Airport Compatibility Zones B1, C, and D of the Jacqueline Cochran Regional Airport Influence Area)



APPLICATION FOR MAJOR LAND USE ACTION REVIEW

ALUC STAFF ONLY			
ALUC Case Number:	Date Submitted:		
AIA:	Zone:	Public Hearing	Staff Review
	Applicant		
Applicant Full Name:			
Applicant Address:			
Phone:	Email:		
	Representative/ Property Owner Co.	ntact Information	
Representative:		Email	:
		Phone	:
Address:			
Property Owner:		Email	<u>. </u>
			:
Address:			
	Local Jurisdiction Age	ncy	
Agency Name:	<u> </u>		:
Staff Contact:			<u> </u>
Address:	:		:
Local Agency Case No.:			
	Project Location		
Street Address:		Gross Parcel Siz	e.:
Assessor's Parcel No.:			_
	Solar		

	Data Data
Site Elevation:(above mean sea level)	
Height of Building or structures:	
What type of drainage basins are being proposed and the square	
footage:	
	Notice

A. NOTICE: Failure of an applicant to submit complete or adequate information pursuant to Sections 65940 to 65948 inclusive of the California Government Code, MAY constitute grounds for disapproval of actions, regulations, or permits.

B. REVIEW TIME: Estimated time for "staff level review" is approximately 30 days from date of submittal. Estimated time for "commission level review" is approximately 45 days from date of a complete application submittal to the next available commission hearing meeting.

C. SUBMISSION PACKAGE:

Please submit all application items DIGITALLY via USB or CD:

- Completed ALUC Application Form
- Plans Package: site plans, floor plans, building elevations, grading plans, subdivision maps
- Exhibits of change of zone, general plan amendment, specific plan amendment
- Project description of existing and proposed use

Additionally, please provide:

- ALUC fee payment (Checks made out to Riverside County ALUC)
- Gummed address labels of all surrounding property owners within a 300-foot radius of project site. (Only required if the project is scheduled for a public hearing).

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

STAFF REPORT

ADMINISTRATIVE ITEMS

5.1 Director's Approvals

A. During the period of November 16, 2023, through December 15, 2023, as authorized pursuant to Section 1.5.2(d) of the 2004 Riverside County Airport Land Use Compatibility Plan, ALUC Director Paul Rull reviewed one non-legislative case and issued a determination of consistency.

ZAP1078RG23 (Zone E) pertains to County of Riverside Case No. PPW230004 (Plot Plan), a proposal to construct a 70-foot tall mono-palm tree wireless communication facility with a 900 square foot equipment shelter area, located easterly of Pierce Street at 60972 Pierce Street. The site is located within Airport Compatibility Zone E of the Jacqueline Cochran Regional Airport Influence Area (AIA). Zone E does not restrict non-residential intensity. The elevation at the southerly end of Runway 17-35 at Jacqueline Cochran Regional Airport is -137.5 feet below mean sea level (MSL). At a distance of 13,586 feet from the runway to the project, Federal Aviation Administration Obstruction Evaluation Services (FAA OES) review would be required for any structures with a top of roof exceeding –2 feet below MSL. The site's elevation is -152 feet MSL and the proposed building height is 70 feet, resulting in a top point elevation of -82 feet AMSL. Therefore, review by the FAA OES was not required.

ALUC Director Paul Rull issued a determination of consistency for this project on November 20, 2023.

B. Additionally, ALUC Director Paul Rull reviewed one local jurisdiction non-impact legislative case pursuant to ALUC Resolution No. 2011-02, and issued a determination of consistency.

ZAP1079RG23 (Countywide) pertains to County of Riverside Case Nos. GPA230007 (General Plan Amendment), CZ2300028 (Change of Zone), a proposal to amend the Administration and Land Use Elements and all 19 Area Plans within the Riverside County General Plan, to update procedures related to the Foundation cycle application process. Changes include elimination of the eight-year application cycle, elimination of the General Plan Advisory Committee, modification of all General Plan Amendment types and creation of new General Plan Amendment findings. The applicant also proposes a change of zone to amend the Ordinance No. 348. The proposed amendments do not involve changes in development standards or allowable land uses that would increase residential density or non-residential intensity. Therefore, these amendments have no possibility of having an impact on the safety of air navigation within airport influence areas located within the County of Riverside.

ALUC Director Paul Rull issued a determination of consistency for this project on November 20, 2023.

C. Additionally, ALUC Director Paul Rull reviewed one case within the Perris Valley Airport Influence Area pursuant to ALUC Resolution No. 2020-02, and issued a determination of consistency.

ZAP1033PV23 (Zone E) pertains to City of Menifee Case Nos. PLN23-0060 (Specific Plan Amendment), PLN22-0246 (Major Modification Tentative Tract Map No. 36658), a proposal modifying previously found consistent case ZAP1006PV14, amending the Cimarron Ridge Specific Plan transferring 49 residential lots from PA-4 to PA-5 and transferring the 10.9-acre park from PA-5 to PA-4 but does not propose any alterations to density as a result of these revisions. Planning Area No. 4, will consist of 81 residential lots and include a 10.9-acre park consisting of active and passive uses and amenities, including a dog park, concession stand, and bathrooms for the community and on-site parking. Planning Area No. 5 will consist

of 151 single-family residential lots, a 1.5-acre recreation area, and 1.2-acre pickle ball facility in conjunction with Planning Area No. 6, which proposing 96 residential lots, and both Planning Areas are age restricted, gated communities. The modifications are proposed for all streets servicing TR36658-5, and TR36658-6, will be converted from public streets to private streets. The design of the intersection of Smokey Quartz Street, and Goetz Road, will be revised to accommodate the proposed gated entry turnaround prior to the gate addition. Gates will also be added to the east entry of phase 5 on Byers Road and the north entry on McLaughlin Road. The proposed modifications to the tentative tract map will not add or reduce the approved number of residential lots. The site is located within Airport Compatibility Zone E of the Perris Valley Airport Influence Area (and partially outside the AIA), which does not restrict residential density or non-residential intensity. The proposed amendments do not involve changes in development standards or allowable land uses that would increase residential density or non-residential intensity. Therefore, these amendments have no possibility of having an impact on the safety of air navigation within the Perris Valley Airport Influence Area.

ALUC Director Paul Rull issued a determination of consistency for this project on November 29, 2023.

5.2 <u>Update March Air Reserve Base Compatibility Use Study (CUS)</u>
Presentation by Project Director Simon Housman or his designee.

X:\ALUC Administrative Items\Admin. 2024\ADmin Item 1-11-24.doc

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION



November 20, 2023

CHAIR Steve Manos Lake Elsinore

Jennifer Lopez, Project Planner Riverside County Planning Division 4080 Lemon Street, 12th Floor Riverside CA 92501

VICE CHAIR Russell Betts Desert Hot Springs

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW - DIRECTOR'S **DETERMINATION**

COMMISSIONERS

File No: ZAP1078RG23

John Lyon Riverside Related File No.: PPW230004 (Plot Plan)

Steven Stewart

APN: 757-330-008

Palm Springs

Dear Ms. Lopez:

Richard Stewart Moreno Valley

Under the delegation of the Riverside County Airport Land Use Commission (ALUC) pursuant to Policy 1.5.2(d) of the Countywide Policies of the 2004 Riverside County Airport Land Use Compatibility Plan, staff reviewed County of Riverside Case No. PPW230004 (Plot Plan), a proposal to construct a 70-foot tall mono-palm tree wireless communication facility with a 900 square foot equipment shelter area, located easterly of Pierce Street at 60972 Pierce Street.

Michael Geller Riverside

The site is located within Airport Compatibility Zone E of the Jacqueline Cochran Regional

The elevation at the southerly end of Runway 17-35 at Jacqueline Cochran Regional Airport is -

Vernon Poole Murrieta

Airport Influence Area (AIA). Zone E does not restrict non-residential intensity.

STAFF Director

Paul Rull

Simon A. Housman Jackie Vega

137.5 feet below mean sea level (MSL). At a distance of 13,586 feet from the runway to the Barbara Santos project, Federal Aviation Administration Obstruction Evaluation Services (FAA OES) review would be required for any structures with a top of roof exceeding -2 feet below MSL. The site's

County Administrative Center 4080 Lemon St., 14thh Floor. Riverside, CA 92501 (951) 955-5132

www.rcaluc.org

elevation of -82 feet AMSL. Therefore, review by the FAA OES was not required. As ALUC Director, I hereby find the above-referenced project **CONSISTENT** with the 2005 Jacqueline Cochran Regional Airport Land Use Compatibility Plan, as amended in 2006,

provided that the County of Riverside applies the following recommended conditions:

elevation is -152 feet MSL and the proposed building height is 70 feet, resulting in a top point

- 1. The following uses shall be prohibited:
 - (a) Any use or activity which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
 - Any use or activity which would cause sunlight to be reflected towards an aircraft (b) engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - (c) Any use or activity which would generate smoke or water vapor or which would

- attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.
- (d) Any use or activity which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- 2. The attached "Notice of Airport in Vicinity" shall be provided to all prospective purchasers and occupants of the property.
- 3. The project has been evaluated to construct a 70-foot mono-palm tree with a 900 square foot enclosure. Any increase in building area, change in use to any higher intensity use, change in building location, or modification of the tentative parcel map lot lines and areas will require an amended review to evaluate consistency with the ALUCP compatibility criteria, at the discretion of the ALUC Director.

If you have any questions, please contact me at (951) 955-6893.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Paul Rull, ALUC Director

Attachments: Notice of Airport in Vicinity

cc: Smartlink(applicant)

New Cingular Wireless PCS, LLC (representative))

Axar (property owner)

Angela Jamison, County Airports Manager

ALUC Case File

X:\AIRPORT CASE FILES\Regional\ZAP1078RG23\ZAP1078RG23.LTR.doc

NOTICE

THERE IS AN AIRPORT NEARBY.

THIS STORM WATER BASIN IS DESIGNED TO HOLD
STORM WATER FOR ONLY 48 HOURS AND
NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID

BIRD STRIKES



Name:	Phone:	

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

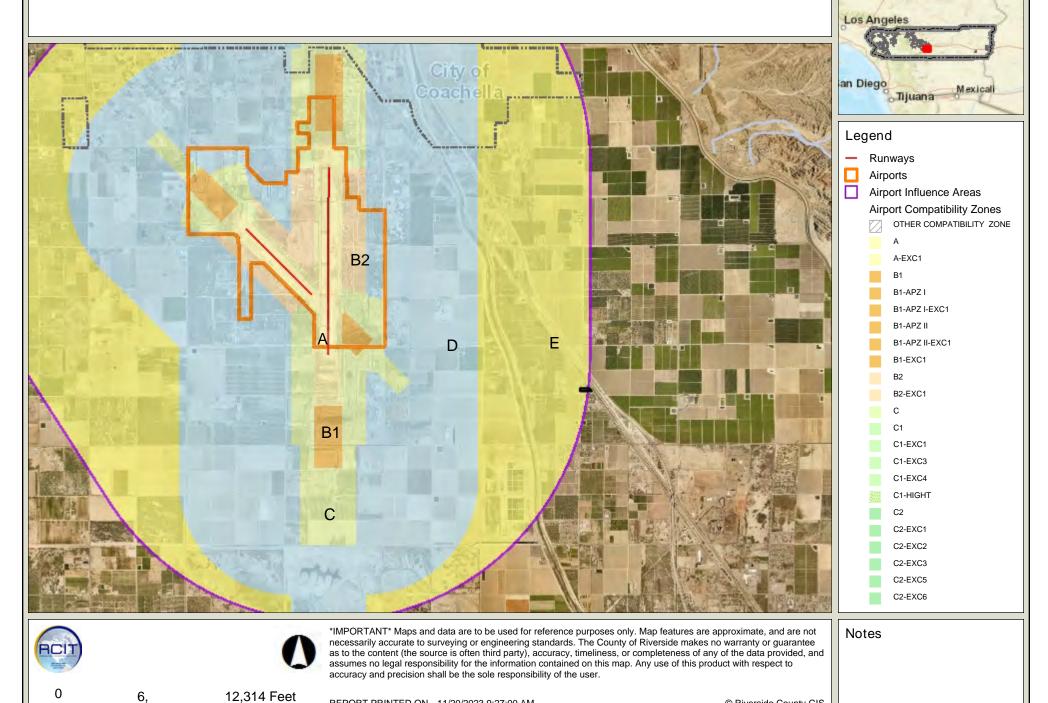


Jacqueline Cochran Regional Airport

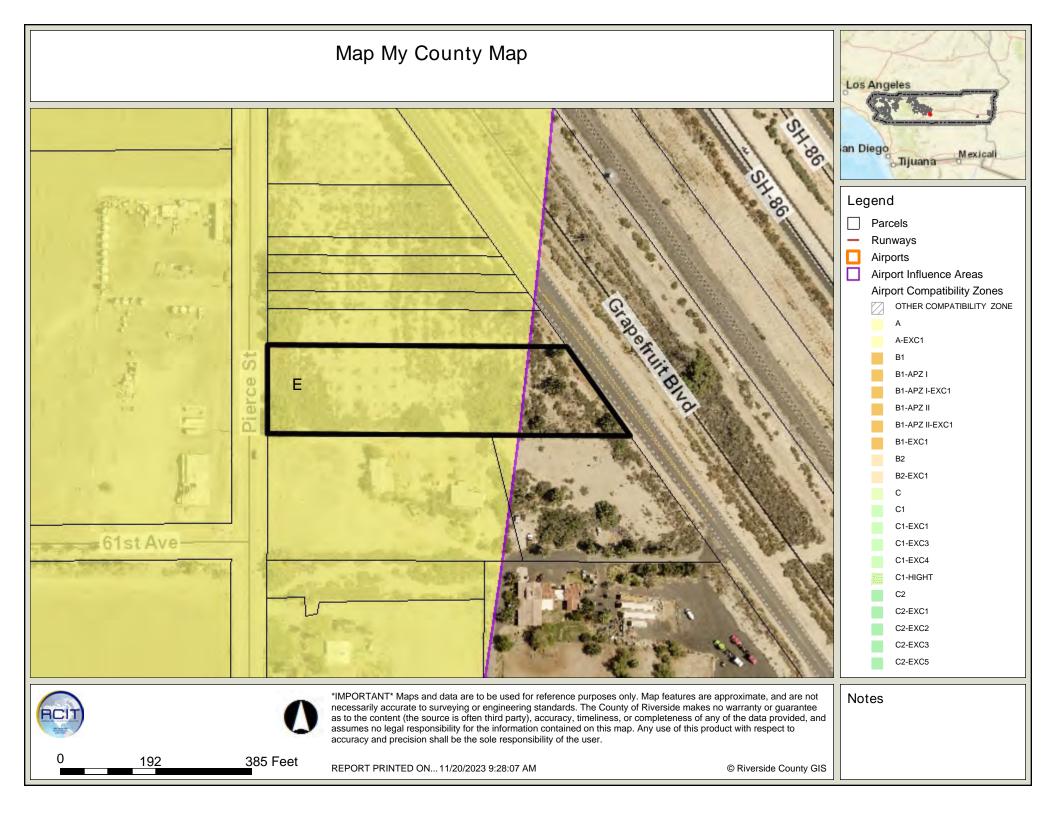
10,000'

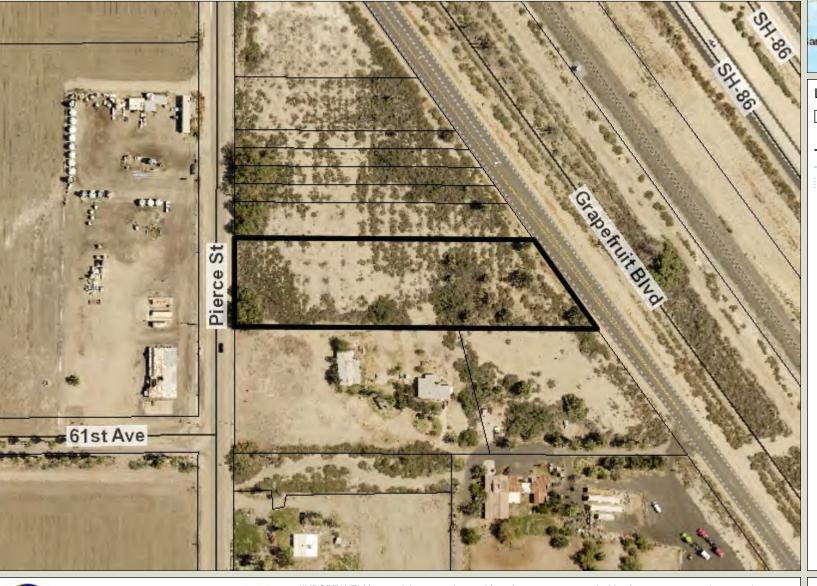
FEET

REPORT PRINTED ON... 11/20/2023 9:27:00 AM



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Legend

- Parcels
- County Centerline Names
- County Centerlines
- Blueline Streams
- City Areas
- World Street Map





IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

Notes

0 192 385 Feet





Legend

County Centerline Names

- County Centerlines
- Blueline Streams
- City Areas
 World Street Map





IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

1, 3,079 Feet

REPORT PRINTED ON... 11/20/2023 9:29:37 AM

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Notes





Legend

County Centerline Names

- County Centerlines
- **Blueline Streams**
- City Areas World Street Map





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REPORT PRINTED ON... 11/20/2023 9:29:55 AM

Notes

770

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Legend

- Blueline Streams
- City Areas World Street Map

Notes





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3, 6,157 Feet

REPORT PRINTED ON... 11/20/2023 9:29:19 AM

© Riverside County GIS



SITE NUMBER: CSL02427

SITE NAME: PIERCE AX

60972 PIERCE ST., THERMAL, CA 92274

PACE #: MRLOS094216, USID: 318264, PTN #: 3551A12TKL, FA #: 13024079

LOCATION MAPS

SITE INFORMATION

PROPERTY OWNER: CONTACT: PHONE:

AXAR DOUG JONES (760) 275-4979

AT&T MOBILITY 1452 EDINGER AVE. TUSTIN. CA 92780 APPLICANT ADDRESS

APPLICANT REPRESENTATIVE:

1997 ANNAPOLIS EXCHANGE PKWY., SUITE 200 ANNAPOLIS, MD 21401

LATITUDE (NAD 83): N 33' 36' 24.26" (33.606739) W 116' 06' 43.43" (-116.112064) LONGITUDE (NAD 83):

GROUND ELEVATION: -152.21' AMSI U - UTILITY AND MISCELLANEOUS OCCUPANCY:

757-330-008 APN # ZONING JURISIDICTION: COUNTY OF RIVERSIDE

CURRENT ZONING: A-2-10 HEAVY AGRICULTURE

LAND USE DESIGNATION:

PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY

±900 SQ. FT.

PROJECT TEAM

AT&T PROJECT MANAGER: AT&T MOBILITY SERVICES LLC CONTACT: CHRISTIF PRICE

LEASE SPACE:

SMARTLINK PROJECT MANAGER: CONTACT: MOISES ACEVES

PHONE: (760) 799-6670 EMAIL: moises.aceves@smar

LAND USE PLANNER:

CONTACT: TYNE ALLAMAN PHONE: (785) 821-1121

EMAIL: tyne.allaman@smartlinkaroup.com

DO NOT SCALE **DRAWINGS**

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



811 / 800-227-2600 digalert.org

A/E MANAGER: CELLSITE CONCEPTS 16885 VIA DEL CAMPO CT., SUITE 318 SAN DIEGO, CA 92127 CONTACT: SEV FRANCISCO

PHONE: (858) 432-4112

SITE ACQUISITION: SMARTLINK CONTACT: KRIS SANDERS

PHONE: (760) 218-4847

PHONE: (562) 293-6236

CONSTRUCTION MANAGER:
AT&T MOBILITY SERVICES LLC
CONTACT: ANDRE CAMOU

GENERAL NOTES

DIRECTION FROM AT&T OFFICE (1452 EDINGER AVE., TUSTIN, CA 92780):

1. START OUT GOING SOUTHEAST ON EDINGER AVE. TOWARD RED HILL AVE.

2. TURN LEFT ONTO RED HILL AVE.

3. TURN LEFT ONTO SYCAMORE AVE.

4. MERGE ONTO CA-55 N TOWARD RIVERSIDE.

5. MERGE ONTO CA-60 E VIA EXIT 65B TOWARD SAN DIEGO/INDIO/I-215 S.

7. MERGE ONTO 1-10 E VIA THE EXIT ON THE LEFT.

8. TAKE CA-86 S TOWARD EL CENTRO/SRAWLEY.

9. TAKE THE AIRPORT BLVD EXIT, EXIT 16.

10. CONTINUE STRAIGHT ONTO DESERT CACTUS DR.

11. TURN RIGHT ONTO 55TH AVE.

12. TURN LEFT ONTO CA-111 S

13. TURN SLIGHT RIGHT ONTO PIERCE ST.

14. 60970 PIERCE ST IS ON THE LEFT.

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS
REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE. A
TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE: NO SANITARY SEWER SERVICE. OTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

DRIVING DIRECTIONS

VICINITY MAP



LOCAL MAP

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

- AUTHORITIES.
 CALIFORNIA ADMINISTRATIVE CODE (INCL TITLE 24 & 25)
 2022 CALIFORNIA BUILDING CODE
 2022 CALIFORNIA BUILDING CODE
 2022 CALIFORNIA PLUMBING CODE
 2022 CALIFORNIA PLUMBING CODE
 2022 CALIFORNIA PLECTRICAL CODE
 2022 CALIFORNIA FILE CODE
 2022 CALIFORNIA FILE CODE
 2022 LOCAL BUILDING CODE

- BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA)
 CITY/COUNTY ORDINANCES
- ANSI/TIA-222-H
 LIFE SAFETY CODE NFPA-101

ACCESSIBILITY NOTE

THE TELECOMMUNICATIONS EQUIPMENT SPACE SHOWN ON THESE PLANS IS NOT CUSTOMARILY OCCUPIED. WORK TO BE PERFORMED IN THIS FACILITY CANNOT REASONABLY BE PERFORMED BY PERSONS WITH A SEVERE IMPARMENT: MOBILITY, SIGHT, AND/OR HEARING. THEREFORE, PER 2022 CALIFORNIA BUILDING CODE SECTION 1105B.3.4, AND/OR 119–20.3.5 OF 2022 CALIFORNIA BUILDING CODE, EXCEPTION 1, THIS FACILITY SHALL BE EXEMPTED FROM ALL TITLE 24 ACCESS REQUIREMENTS

PROJECT DESCRIPTION

AT&T MOBILITY PROPOSES TO CONSTRUCT AN UNMANNED WIRELESS COMMUNICATION FACILITY. THE SCOPE WILL CONSIST OF

ANTENNA LEVEL

- PROPOSED (1) 70'-0" HIGH MONOPALM.
 PROPOSED (12) PANEL ANTENNAS MOUNTED ON PROPOSED MONOPALM (4 PER SECTOR).
- PROPOSED (36) RRUS MOUNTED BEHIND PANEL ANTENNAS. (12 PER SECTOR).
- PROPOSED (6) DC9 SURCE SUPPRESSION UNITS MOUNTED NEAR RRUS.
 PROPOSED (16) DC POWER TRUNKS ROUTED UNDER GROUND AND INSIDE PROPOSED MONOPALM.
- PROPOSED (6) FIBER TRUNKS ROUTED INSIDE PROPOSED MONOPALM. PROPOSED (1) 4'Ø MICROWAVE MOUNTED ON PROPOSED MONOPALM.

- PROPOSED 30'x30'x8' HIGH SPLIT FACE CMU WALL ENCLOSURE.
 PROPOSED (1) CONCRETE WIC (WALK-IN CABINET) MOUNTED ON PROPOSED CONCRETE PAD.
- PROPOSED (1) 20KW GENERATOR WITH 140 GALLON TANK MOUNTED ON PROPOSED CONCRETE PAD PROPOSED (4) DC12 SURGE SUPPRESSION UNITS MOUNTED ON CONCRETE WIC SHELTER.
 PROPOSED (4) FIBER WINDER BOXES MOUNTED ON CONCRETE WIC SHELTER.
- PROPOSED (1) GPS ANTENNA MOUNTED ON CONCRETE WIC SHELTER.
 PROPOSED (1) TELCO BOX MOUNTED ON H-FRAME.
 PROPOSED (1) METER PEDESTAL ON CONCRETE PAD.
- PROPOSED (1) FIBER MEET—ME—POINT PULLBOX.
 PROPOSED FAUX CLIMBING VINES PER PLAN.

DRAWING INDEX SHEET NO: SHEET TITLE TITLE SHEET 15-1 TOPOGRAPHIC SURVEY LS-2 TOPOGRAPHIC SURVE A-1 SITE PLAN ENLARGED SITE PLAN EQUIPMENT LAYOUT AND ANTENNA PLAN A-3A-4 ELEVATIONS A-5 ELEVATIONS

	SIGNATU	IRE BLOCK		
PRINT NAME SIGNATURE DATE				
AT&T RF:				
AT&T PM:				
AT&T CM:				
SMARTLINK PM:				
SMARTLINK ZM:				
SMARTLINK SAQ:				
SMARTLINK CM:				







SAN DIEGO, CA 92127 tel: (858) 432-4112 / (858) 432-4257

7				
ı				
4		1	05/19/2023	PLANNING COMMENTS
1		0	09/08/2022	100% ZD'S
ı		Α	08/12/2022	90% ZD'S FOR REVIEW
ı		REV	DATE	DESCRIPTION

ISSUED DATE:

05/19/2023

PLANNING SUBMITTAL

ı	LICENSURE:	
ı		
1		

CSL02427 PIERCE AX

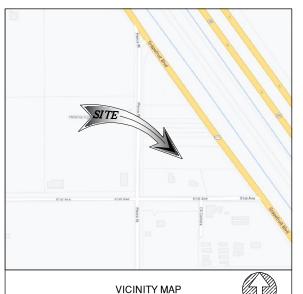
60972 PIERCE ST., THERMAL, CA 92274

DRAWN BY:	AMA
CHECKED BY:	SVF

SHEET TITLE:

TITLE SHEET

T-1



<u>APN</u> 757-330-008

SITE ADDRESS 60972 PIERCE ST., THERMAL, CA 92274

TITLE REPORT

TITLE REPORT WAS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY WITH ORDER NUMBER 92018518-920-CMM-CM8 AND CUARANTEE NUMBER CA-SFXFC-IMP-81G28-1-22-92018518 DATED JULY 27, 2022.

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM CALIFORNIA STATE PLANE COORDINATE ZONE SIX, DETERMINED BY GPS OBSERVATIONS.

BENCHMARK

ELEVATIONS ARE BASED ON CRTN (CSRC) NETWORK BROADCAST COORDINATES.

FLOODZONE

SITE IS LOCATED IN FLOOD ZONE "AE" AS PER F.I.R.M. MAP NO. 06065C2930H EFFECTIVE DATE 03/06/2018.

LEGEND

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY, THIS IS A SPECIALIZED TOPOGRAPHIC MAP.
THE PROPERTY LINES AND EASEMENTS SHOWN HEREON ARE FROM RECORD
INFORMATION AS NOTED HEREON. CELLSITE CONCEPTS TRANSLATED THE
TOPOGRAPHIC SURVEY TO RECORD INFORMATION USING FOUND MONUMENTS
SHOWN HEREON. THE LOCATION OF PROPERTY LINES SHOWN HEREON ARE
APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. THEY ARE NOT TO BE RELIED UPON AS THE ACTUAL BOUNDARY LINES.

- 2. ANY CHANGES MADE TO THE INFORMATION ON THIS PLAN, WITHOUT THE WRITTEN CONSENT OF CELLSITE CONCEPTS, RELIEVES CELLSITE CONCEPTS OF ANY AND ALL LIABILITY.
- 3. THE HEIGHTS AND ELEVATIONS FOR THE TREES, BUSHES AND OTHER LIVING PLANTS SHOWN HEREON, SHOULD BE CONSIDERED APPROXIMATE (+/-) AND ONLY FOR THE DATE OF THIS SURVEY. THEY ARE PROVIDED AS A GENERAL REFERENCE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.
- 4. WRITTEN DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED & SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE SURVEYOR PRIOR TO COMMENCEMENT OF ANY WORK.
- 5. FIELD SURVEY COMPLETED ON JULY 27, 2022.

MONUMENTS CENTER LINE

PROPERTY LINE ___ x __ x ___ CHAIN-LINK FENCE EDGE OF PAVEMENT FP FDGE OF PAVEMENT FG EXISTING GRADE FS FINISH SURFACE TOP OF POLE TR TOP OF ROOF RF ROOF FDGE TOP OF TREE

EXISTING SIGNAGE -UTILITY POLE

PALM TREE

RECORD OF SURVEY BK. 108 PG. 97

TREE

PROPERTY LINES DERIVED FROM LICENSED LAND SURVEY NAMP SURVEY NO. 152 BK. 8 PG. 19 DATED JUNE 04, 1927 RECORD OF SURVEY BK. 151 PG. 69 DATED JANUARY 24, 2019

FD. 1" IRON ROD

TIE LINE TABLE LENGTH BEARING 324.15 N00'13'30" 303.65

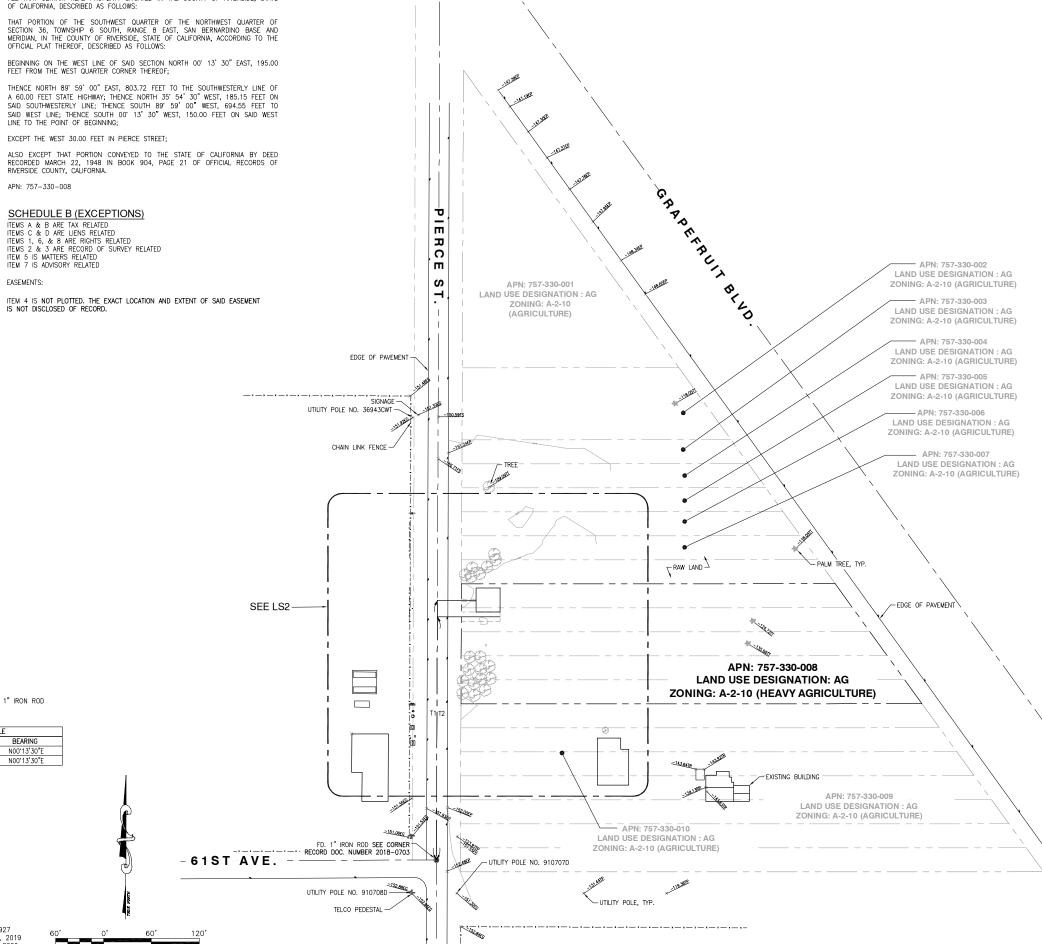
DATED AUGUST 15, 2000

GRAPHIC SCALE: 1"=60"

LEGAL DESCRIPTION

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE

SAID WEST LINE; THENCE SOUTH 00' 13' 30" WEST, 150.00 FEET ON SAID WEST







1997 ANNAPOLIS EXCHANGE PKWY., SUITE 200 ANNAPOLIS, MD 21401



16885 VIA DEL CAMPO CT., SUITE 318 SAN DIEGO, CA 92127 tel: (858) 432-4112 / (858) 432-4257

3	05/19/2023	LEASE AREA RELOCATION
2	09/08/2022	FINAL SURVEY
1	08/12/2022	PRELIMINARY SURVEY
REV	DATE	DESCRIPTION

ISSUED-DATE: -

MAY 19, 2023

ISSUED FOR: -

FINAL SURVEY

LICENSURE: LAND 05/19/23

PROJECT-INFORMATION:

CSL02427 PIERCE AX 60972 PIERCE ST., THERMAL, CA 92274

DRAWN BY AM/

SHEET-TITLE:

TOPOGRAPHIC SURVEY

SHEET-NUMBER:

LS-1

12 FEET WIDE NON-EXCLUSIVE ACCESS ROUTE CENTERLINE DESCRIPTION:

A PORTION OF ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 36, TOWNSHIP 6 SOUTH, RANGE 8 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT.

A STRIP OF LAND FOR THE PURPOSE OF A NON-EXCLUSIVE ACCESS ROUTE FOR THE LAND REFERRED TO HEREIN SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A ROUTE BEING TWELVE (12.00) FEET IN WIDTH, LYING SIX (6.00) FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE TO WIT:

COMMENCING AT CENTERLINE INTERSECTION OF 61ST AVENUE AND PIERCE STREET, ON A FOUND 1" IRON ROD MONUMENT, AS SHOWN ON THAT CORNER RECORD FILED IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY ON DECEMBER 18, 2018 IN AGENCY INDEE CR170409, DOCUMENT NUMBER 2018-0703; THENCE NORTHERLY ALONG SAID CENTERLINE OF PIERCE STREET, NORTH 00'13'30" EAST A DISTANCE OF 303.65 FEET; THENCE SOUTHEASTERLY LEAVING SAID PIERCE STREET, SOUTH 89'46'30" EAST A DISTANCE OF 30.00 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF SAID PIERCE STREET, BEING THE POINT OF BEGINNING OF THIS CENTERLINE DESCRIPTION:

THENCE NORTH 90'00'00" EAST A DISTANCE OF 48.29 FEET TO THE TERMINUS POINT OF THIS CENTERLINE ROUTE DESCRIPTION.

THE SIDE LINES OF SAID TWELVE (12.00) FEET WIDE ACCESS ROUTE IS TO BE EXTENDED AND/OR SHORTENED TO TERMINATE IN THE LANDS OF THE GRANTOR AND SHALL BE JOINED AT ALL ANGLE

SUBJECT TO ALL EASEMENTS AND/OR RIGHT-OF-WAY RECORDS.

3 FEET WIDE UTILITY EASEMENT CENTERLINE DESCRIPTION:

A PORTION OF ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 36, TOWNSHIP 6 SOUTH, RANGE 8 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT.

A STRIP OF LAND FOR THE PURPOSE OF UTILITY EASEMENT FOR THE LAND REFERRED TO HEREIN SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A THREE (3.00) FEET IN WIDTH EASEMENT FOR THE PURPOSE OF FIBER & POWER UTILITY, LYING ONE AND A HALF (1.50) FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE TO WIT:

COMMENCING AT CENTERLINE INTERSECTION OF 61ST AVENUE AND PIERCE STREET, ON A FOUND 1" IRON ROD MONUMENT, AS SHOWN ON THAT CORNER RECORD FILED IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY ON DECEMBER 18, 2018 IN AGENCY INDEX CR170409, DOCUMENT NUMBER 2018-0703; THENCE NORTHERLY ALONG SAID CENTERLINE OF PIERCE STREET, NORTH 00'13'30" EAST A DISTANCE OF 324.15 FEET; THENCE SOUTHEASTERLY LEAVING SAID PIERCE STREET, SOUTH 89'46'30" EAST A DISTANCE OF 30.00 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF SAID PIERCE STREET, BEING THE POINT OF BEGINNING OF THIS CENTERLINE DESCRIPTION;

THENCE NORTH 89:59'11" EAST A DISTANCE OF 18.28 FEET TO A POINT ON THE WESTERLY SIDE OF THE PROPOSED AT&T LEASE SPACE, REFERRED TO HEREINAFTER AS "POINT A", ALSO BEING THE TERMINUS POINT OF THIS CENTERLINE DESCRIPTION.

THE SIDE LINES OF SAID THREE (3.00) FEET WIDE UTILITY EASEMENT IS TO BE EXTENDED AND/OR SHORTENED TO TERMINATE IN THE LANDS OF THE GRANTOR AND SHALL BE JOINED AT

SUBJECT TO ALL EASEMENTS AND/OR RIGHT-OF-WAY RECORDS.

PROPOSED AT&T LEASE AREA DESCRIPTION:

A PORTION OF ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 36, TOWNSHIP 6 SOUTH, RANGE 8 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT.

A STRIP OF LAND FOR THE PURPOSE OF AT&T LEASE AREA FOR THE LAND REFERRED TO HEREIN SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS TO WIT:

BEGINNING AT SAID <u>POINT "A";</u>
THENCE SOUTH 00'01'00" EAST A DISTANCE OF 14.51 FEET; THENCE NORTH 89'59'00" EAST A DISTANCE OF 30.00 FEET

THENCE NORTH 00'01'00" WEST A DISTANCE OF 30.00 FEET;

THENCE SOUTH 89:59'00" WEST A DISTANCE OF 30:00 FEET-

THENCE SOUTH 00'01'00" EAST A DISTANCE OF 15.49 FEET TO THE POINT OF BEGINNING OF THIS PROPOSED AT&T LEASE AREA.

CONTAINING 900 SQUARE FEET MORE OR LESS.

SUBJECT TO ALL EASEMENTS AND/OR RIGHT-OF-WAY RECORDS.

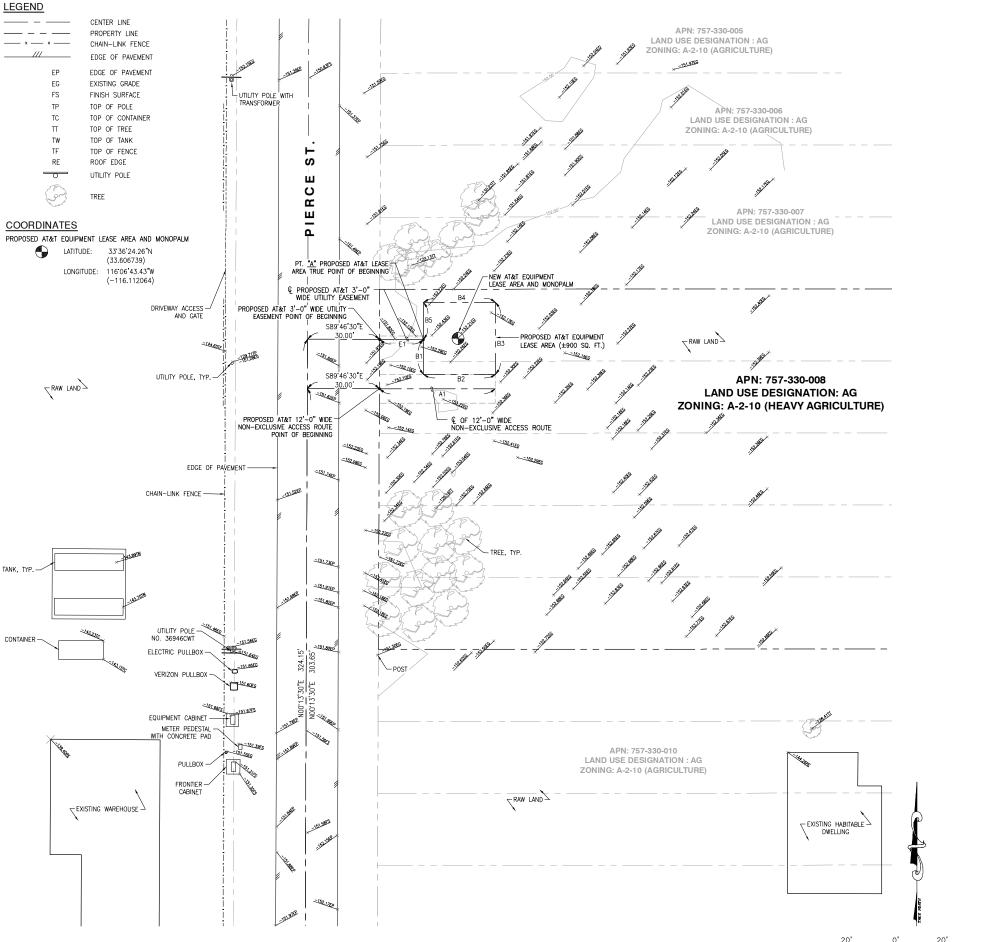
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LICENSED LAND SURVEYOR'S MAP SURVEY NO. 152 BK. 8 PG. 19

RECORD OF SURVEY BK. 151 PG. 69 RECORD OF SURVEY BK. 108 PG. 97

DATED JUNE 04, 1927 DATED JANUARY 24, 2019 DATED AUGUST 15, 2000







1997 ANNAPOLIS EXCHANGE PKWY., SUITE 200 ANNAPOLIS, MD 21401



16885 VIA DEL CAMPO CT., SUITE 318 SAN DIEGO, CA 92127 tel: (858) 432-4112 / (858) 432-4257



ISSUED DATE:

MAY 19, 2023

ISSUED FOR: -

FINAL SURVEY

LICENSURE: 05/19/23

PROJECT-INFORMATION:

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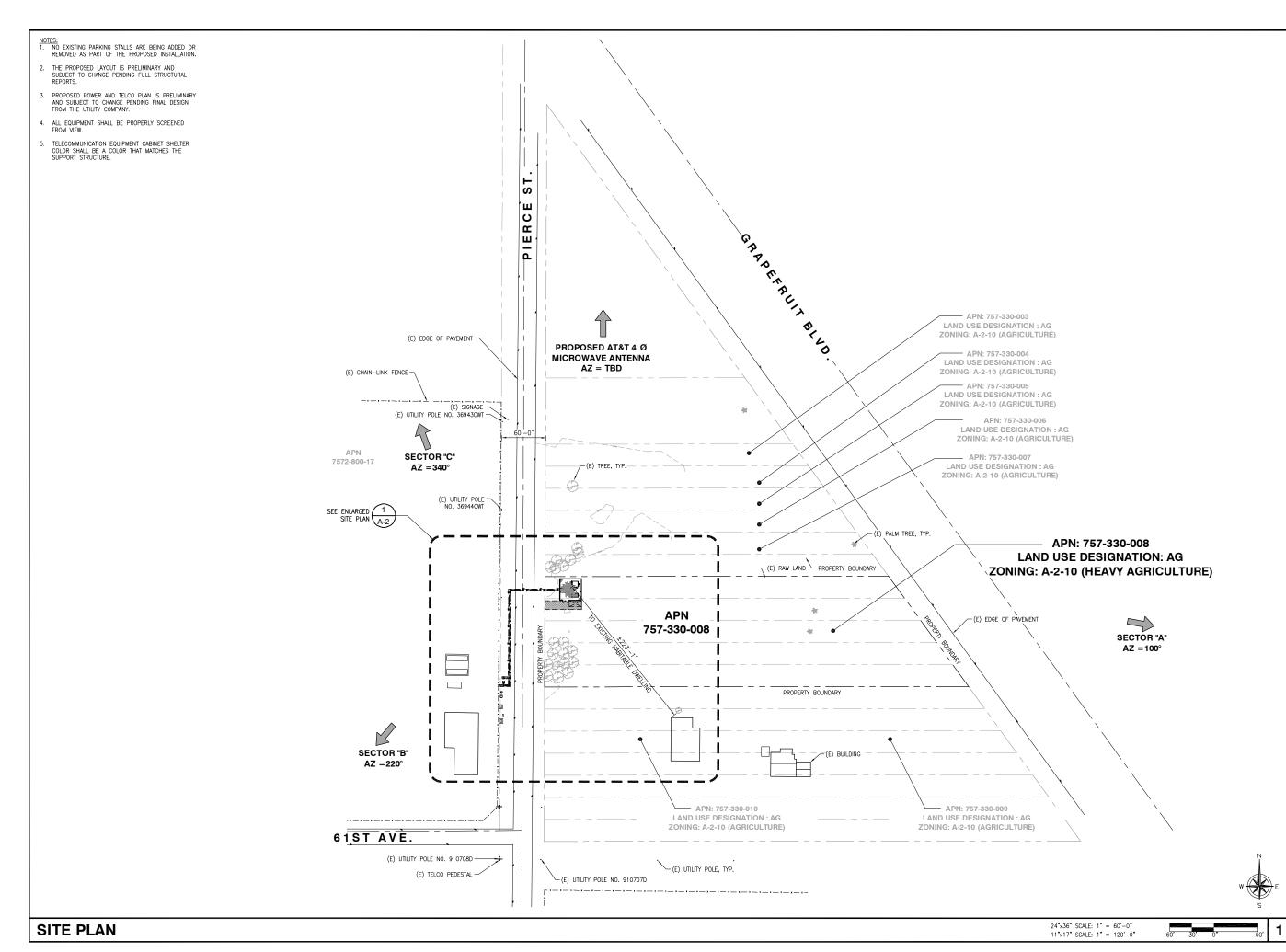
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TOPOGRAPHIC SURVEY

SHEET-NUMBER:

GRAPHIC SCALE: 1"=20"







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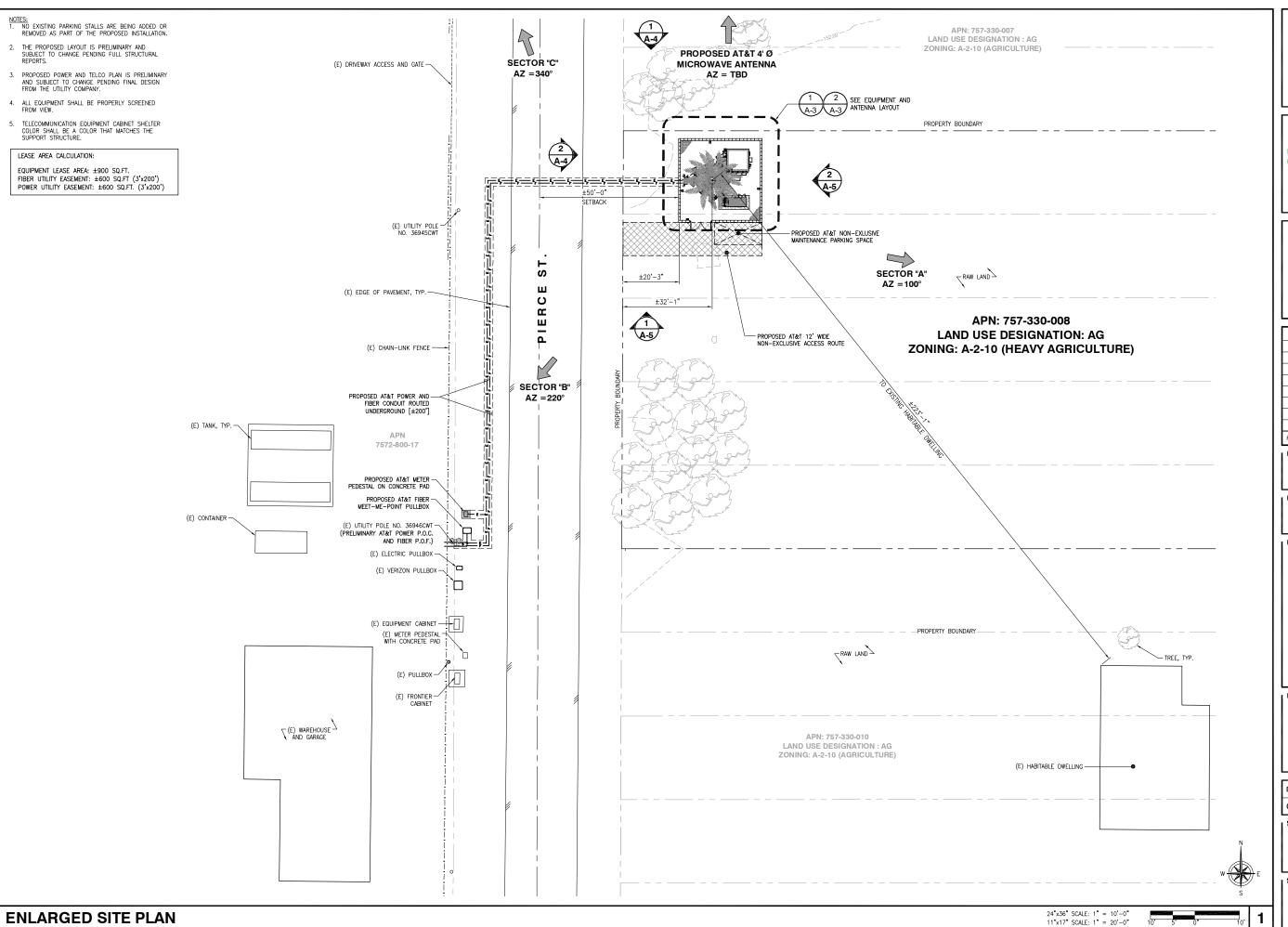
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SITE PLAN

SHEET NUMBER







7 ANNAPOLIS EXCHANGE PKWY., SUITE 200



16885 VIA DEL CAMPO CT., SUITE 318 SAN DIEGO, CA 92127 tel: (858) 432-4112 / (858) 432-4257

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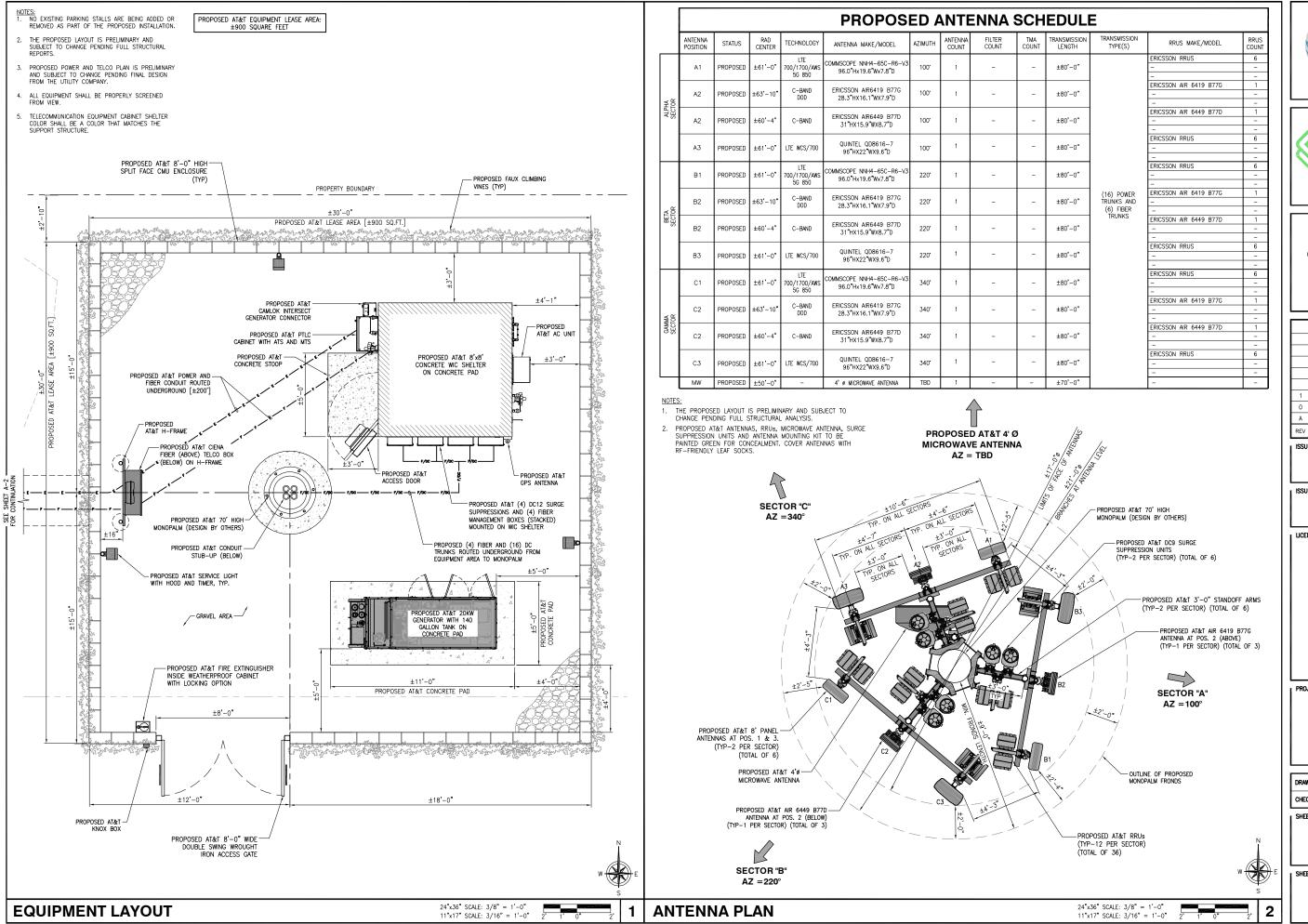
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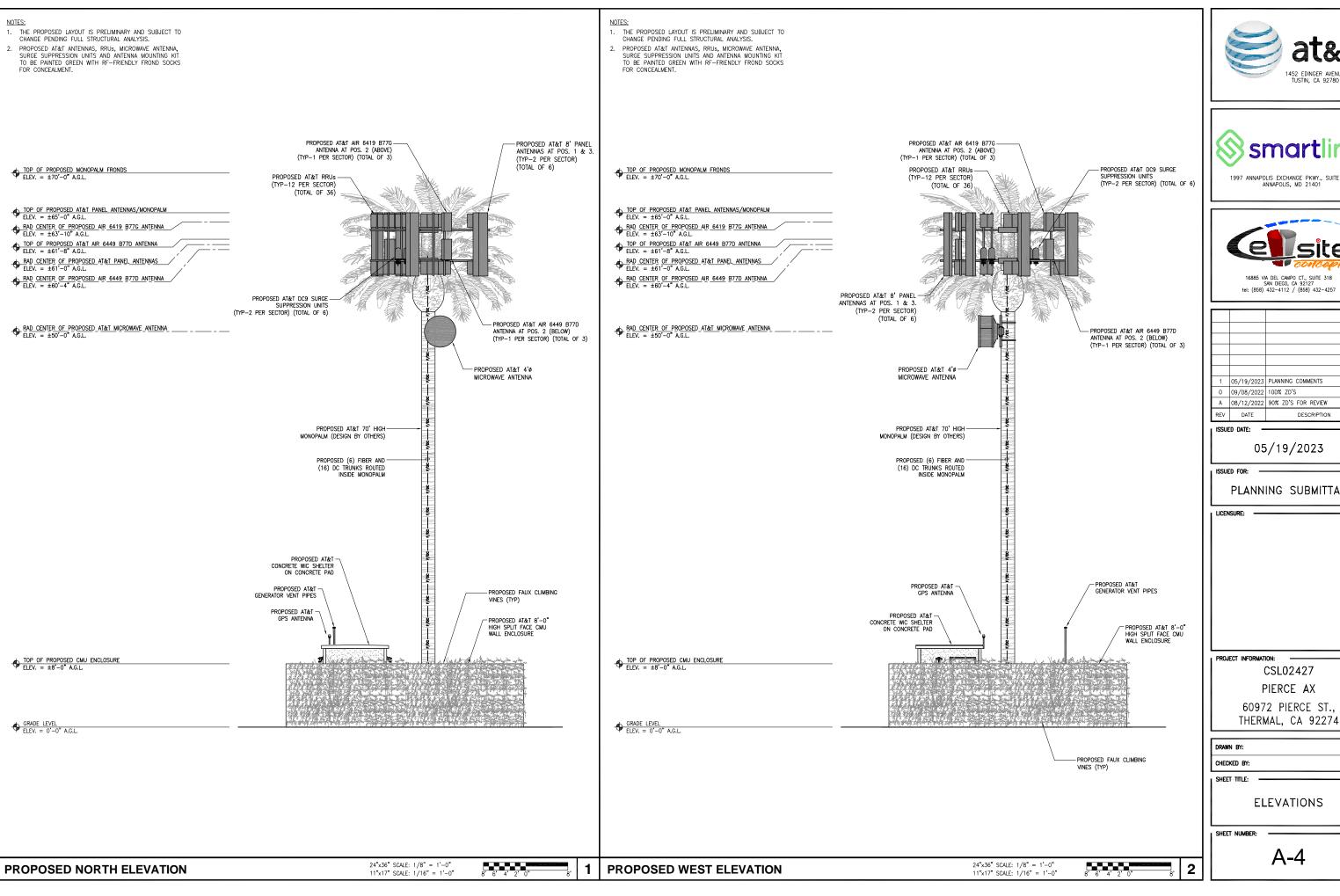
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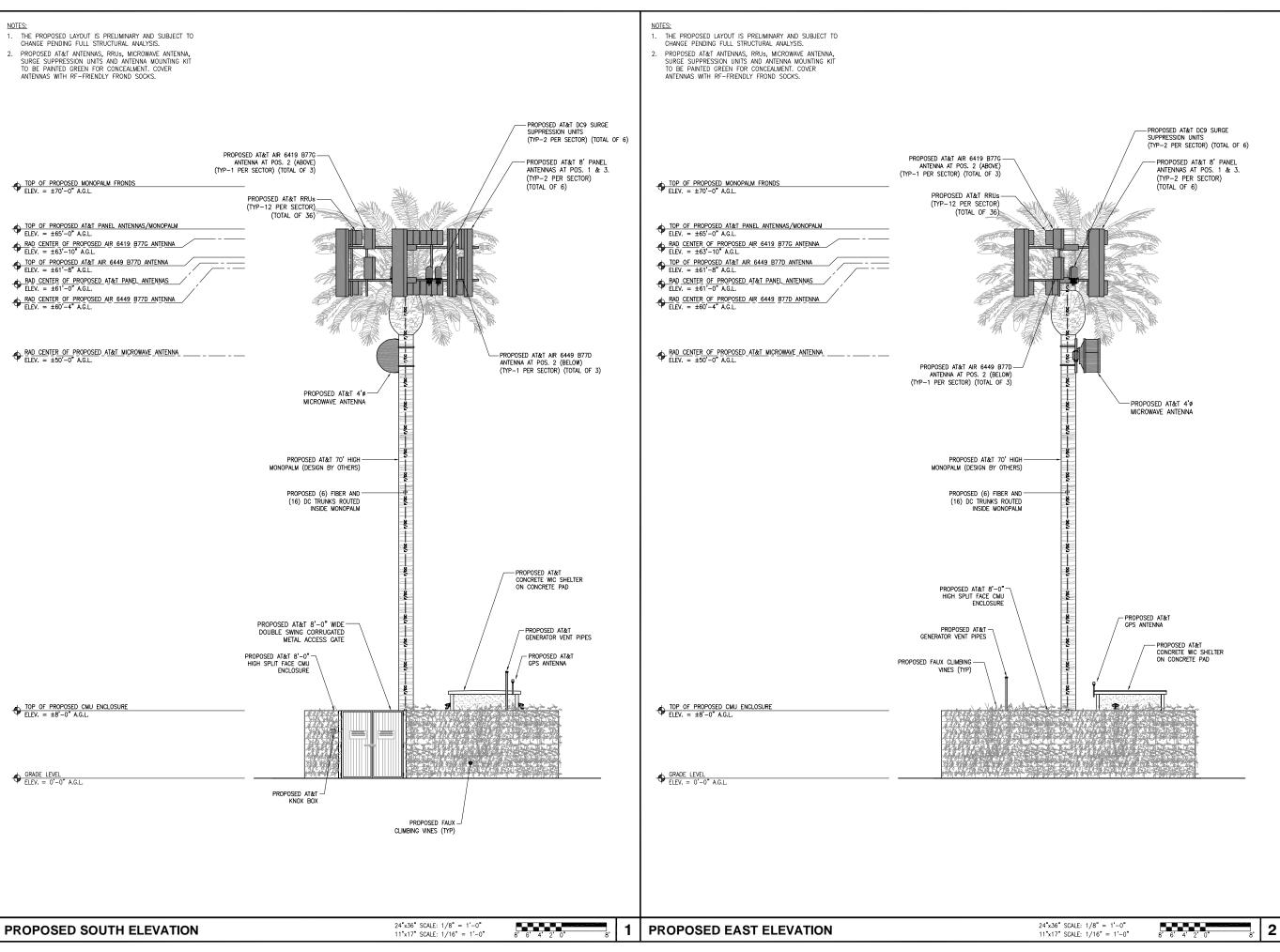
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SHEET NUMBER:

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

November 20, 2023

John Hildebrand, Planning Director County of Riverside Planning Department 4080 Lemon Street, 12th Floor Riverside CA 92501

CHAIR Steve Manos Lake Elsinore

VICE CHAIR Russell Betts Desert Hot Springs RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW - DIRECTOR'S DETERMINATION

COMMISSIONERS

File No.:

ZAP1079RG23

Related File No.:

GPA230007 (General Plan Amendment), CZ2300028 (Change of

Zone)

John Lyon Riverside

APN:

Countywide

Steven Stewart Palm Springs

Dear Mr. Hildebrand,

Richard Stewart Moreno Valley

Michael Geller Riverside

Vernon Poole Murrieta

STAFF

Director Paul Rull

Simon Housman Jackie Vega Barbara Santos

County Administrative Center 4080 Lemon St.,14th Floor. Riverside, CA 92501 (951) 955-5132 As authorized by the Riverside County Airport Land Use Commission (ALUC) pursuant to its Resolution No. 2011-02, as ALUC Director, I have reviewed County of Riverside Case Nos. GPA230007 (General Plan Amendment), CZ2300028 (Change of Zone), a proposal to amend the Administration and Land Use Elements and all 19 Area Plans within the Riverside County General Plan, to update procedures related to the Foundation cycle application process. Changes include elimination of the eight-year application cycle, elimination of the General Plan Advisory Committee, modification of all General Plan Amendment types and creation of new General Plan Amendment findings. The applicant also proposes a change of zone to amend the Ordinance No. 348.

The proposed amendments do not involve changes in development standards or allowable land uses that would increase residential density or non-residential intensity. Therefore, these amendments have no possibility of having an impact on the safety of air navigation within airport influence areas located within the County of Riverside.

As ALUC Director, I hereby find the above-referenced project **CONSISTENT** with all Riverside County Airport Land Use Compatibility Plans.

www.rcaluc.org

This determination of consistency relates to airport compatibility issues and does not necessarily constitute an endorsement of the proposed amendment.

If you have any questions, please contact me at (951) 955-6893.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Paul Rull, ALUC Director

cc: ALUC Case File

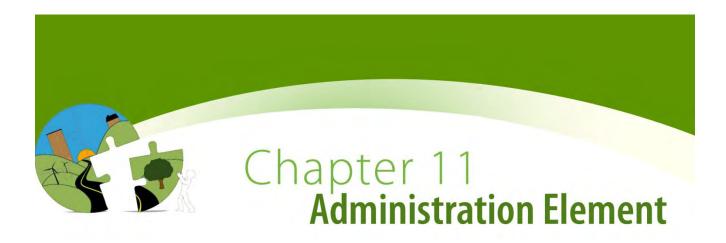
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Administration Element Chapter 11

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Introduction

This chapter focuses on the administration of the General Plan. Administration is not the same as implementation, though the two are closely related. Administration of the General Plan is the sole responsibility of the County of Riverside, under the authority of the Board of Supervisors. It is a function strictly within the purview of the Transportation and Land Management Agency. Implementation, on the other hand, may involve a variety of responsible parties including, but not limited to, a variety of Riverside County agencies and departments as well as entities outside the Riverside County organization. Administration applies provisions of the General Plan directly to the land, while implementation may involve a whole array of actions that may or may not apply directly to the land.

Administration of the General Plan policies includes establishing, maintaining, and applying tools and procedures for interpreting the intent of the General Plan and applying that interpretation to:

- 1. Proposed private development projects;
- 2. Proposed public works projects in support of land development or preservation (Government Code Section 65401);
- 3. Proposed acquisition or disposal of public land (Government Code Section 65401);
- 4. Adoption of ordinances and standards for implementing General Plan land use designations, especially through the Zoning and Subdivision Ordinances;
- 5. Coordination with other jurisdictions in approving land development actions of mutual interest that take place within or adjacent to unincorporated territory;
- 6. Establishing systems and procedures for tracking development activities in response to the General Plan;
- 7. Amending the General Plan;
- 8. Providing accurate information regarding the General Plan to individuals who have a need for such information; and
- 9. Compliance with provisions of the California Government Code requiring an annual report to the Board of Supervisors, the Office of Planning and Research, and the Department of Housing and Community Development on progress in implementing the General Plan (Government Code Section 65400(b)(1)).

A basic premise regarding Riverside County's administrative responsibilities is that it maintains adequate staff, space and funding for the proper conduct of these functions. That extends, as well, to the maintenance of appropriate local codes, especially zoning and subdivision ordinances.

The administrative function, however, does not just include processing private or public development projects. It extends to providing information about and interpretations of the General Plan to those who have need for such information. The clientele for this service includes property owners, project proponents, other jurisdictions that have an interest in unincorporated land development, other governmental agencies, and any member of the general public who may have an interest in how General Plan policies are being applied to the land.

Because a number of governmental agencies have a legal and functional interest in facilitating the development of a project once it is approved, a considerable amount of coordination must take place during the project review process. It is not the purpose of this portion of the General Plan to detail how that coordination must take place; it is only to establish the point that this coordination must occur.

A major thrust of this General Plan is that the County of Riverside is involved not just in approving projects, but in community building in the truest sense. That is expressed clearly in the Riverside County Vision that is the foundation for the General Plan. Accordingly, the considerations that must be brought to bear in evaluating proposed development projects and designing implementation programs and actions are numerous and challenging. This perspective is an essential basis for conducting the administrative duties performed by the County of Riverside.

This chapter provides more specific direction on several aspects of General Plan administration. In addition to this introduction, which sets the stage for the General Plan's administration, further sections deal with:

- 1. The General Plan Structure;
- 2. Interpreting the General Plan's Intent;
- 4. General Plan Certainty System (Amendment Procedures);
- Project Processing and Appeal Procedures; and
- The Incentives System.

General Plan Structure

Because of the unprecedented thoroughness with which this General Plan was prepared and the active involvement of numerous stakeholders in its content, it is essential to appreciate how the special structure of the General Plan contributes to its role in guiding development and conservation of land under authority of the Board of Supervisors. The following topics that make up the key structural ingredients in the General Plan demonstrate this point:

- 1. A Vision for Riverside County;
- 2. General Planning Principles;
- Countywide Elements and Planning Policies;

- 4. Area Plan Policies; and
- 5. Appendices (especially the Implementation Program).

Two additional resources merit mention as useful resources in understanding the rationale and intent of the General Plan, even though they are not part of the General Plan structure, per se. The first is a set of Community Center Guidelines, which provide suggestions (not rules) for ways of implementing a key feature of the General Plan: community centers that serve as focal points for unincorporated communities. These guidelines are described more fully below and are contained in Appendix J to the General Plan. The second is the Environmental Impact Report. This document contains a wealth of information on background data and policy implications that provides a valuable reference for users of the General Plan.

A Vision for Riverside County

A Vision for Riverside County, presented in Chapter 2 of this General Plan, sets the stage for the entire General Plan. It describes the County of Riverside that is envisioned to exist some 20 years in the future. While it is not policy directly, the Riverside County Vision should be referred to on any General Plan topic as an indication of General Plan intent, and as a description of the context in which any General Plan issue should be considered. The key question to be asked when relating a proposed project to the Vision is: will this proposed action move Riverside County toward the Vision to the maximum extent possible?

General Planning Principles

Considerable effort was expended in deriving a set of planning principles from the Vision. They are presented in Appendix B-1 of this General Plan. These principles reflect extensive deliberation by the General Plan Advisory Committee to translate the Vision ideas into more specific direction for preparation of the General Plan policies. Consequently, reference to these principles will provide further insight into the intent of the General Plan. Moreover, these principles and, in fact the Vision as well, derive from 15 Consensus Planning Principles that were developed by a voluntary coalition of diverse interest groups who invested considerable effort in setting direction for the entire Riverside County Integrated Project, one major portion of which was the preparation of this General Plan. So there is a long history of direction and intent that flows from that original thinking.

Countywide Elements and Planning Policies/Area Plans

The General Plan provides policy direction at two levels: 1) Countywide for the entire unincorporated portion of Riverside County under Board of Supervisors' Authority; and 2) for 19 sectors of Riverside County in the form of Area Plans. The intent of this tiered system of policy direction is to distinguish between policies that apply uniformly everywhere in unincorporated territory and those that apply explicitly in distinct geographic areas. In this version of the General Plan, 19 Area Plans provide this more detailed policy direction. A large portion of the eastern desert area of Riverside County is not covered by area plans and thus falls under direction of the countywide policies. March Joint Air Reserve Base is also excluded from any area plan because the policies guiding the base are contained in a general plan prepared by the March Joint Powers Authority (JPA).

The countywide policy direction is captured in traditional topical elements as depicted in the California Government Code: Land Use, Circulation, Multipurpose Open Space (Open Space and Conservation as specified in the law), Safety, Noise and Housing. Two additional optional elements, Air Quality and Healthy Communities, also operate

at the countywide level. Policies at this level apply to all Area Plans in addition to the localized policies contained in them, but do not have to be duplicated in the area plan documents.

A new feature of this General Plan in comparison to past versions is that only five categories of land use apply at the countywide scale:

- Agriculture; and,
- Rural; and,
- Rural Community; and,
- Multipurpose Open Space; and,
- Community Development.

These are defined as Foundation Components. They are basic to the entire process of land management in the County of Riverside. Each foundation component is intended to accommodate a prescribed array of uses, with Multipurpose Open Space being the least intensive, followed by Agriculture, then Rural, and finally, Community Development. Please see Chapter 3, Land Use Element, contains further details of these Foundation Components description of the components. The designation that is intended to accommodate the greatest amount of anticipated growth is the Community Development component, with the Multipurpose Open Space component providing most of the "remarkable environmental setting" that encompasses Riverside County's "family of special communities," as reflected in the Vision for Riverside County.

Area Plan land use designations are based on a consistent system of land use definitions that specify desired and undesired uses. These are the land use designations to be used in evaluating proposed development or conservation projects. Rules for considering land use changes at both the countywide and area plan levels are specified below in the General Plan Certainty System.

Community Center Guidelines

One of the central concepts in this General Plan is the selective identification of community centers: focal points for a number of the unincorporated communities found within the system of area plans. These locales are intended to be compact, self-sufficient combinations of uses that share a distinct identity and function with a powerful synergy.

The closest example to this idea is the small, traditional downtown or focused, highly urban neighborhood in which living, working and recreation/ entertainment all flourish in close proximity to each other. Certainly not all essential services and functions occur in such places, but they typically enable residents and employees to satisfy a significant number of their daily needs without having to leave the area. This typically involves the ability to walk or bicycle within the community center core and does not depend exclusively on the automobile for mobility.

In some cases transit opportunities are also a part of the mix, making mobility options even more diverse. Particularly in community centers served by transit, the degree of compactness and attraction of the area to more remote visitors becomes even greater. However, the key point is that these are not envisioned solely as major commercial or employment centers to which the only means of access is an automobile commute.

The Community Center Design Guidelines (Appendix J) are designed to aid in the translation of this key planning concept into reality. The most important factor to keep in mind regarding these interpretive ideas is that they are guidelines, not regulations. In other words, their purpose is to aid in achieving vibrant community centers but not to mandate certain solutions. A key ingredient in the success of community centers is to open them up to maximum creativity in their mix of uses and physical design for accommodating those uses. Artificial constraint would therefore be counterproductive. These guidelines, then, are to be used as a source of positive ideas to achieve optimum results from development activity in these locales.

Application of reasonable judgement and balance in applying these guidelines cannot be reduced to a formula: their use is a matter of judgement and, as with all matters involving reasoning, many different interpretations are possible. However, they do provide a rich resource for use in planning for these areas, and judicious use of them will contribute toward their attraction for the kind of investment and living experience envisioned in the General Plan.

Appendices

The Appendices to the General Plan are important tools in its administration. The following points illustrate how that is so.

Appendix A-1 Glossary of Terms/Acronyms

This is a comprehensive reference for General Plan terminology. Even though acronyms are fully defined within the text the first time a particular acronym is encountered, this is a simple, alphabetical source for such information.

Appendix B-1 General Planning Principles

These principles, as noted above, take the Vision a step further in providing guidance as to the General Plan's intent. These principles should be used in combination with the Vision to establish a comprehensive understanding of how policies should be interpreted.

Appendix C Public Opinion Survey

During the early stages of the RCIP, a public opinion survey was conducted involving several hundred Riverside County residents. The purpose of this survey was to assess residents' attitudes concerning growth and related issues in the County of Riverside. The results of this survey were compiled into a report, which helped serve as the basis for the subsequent preparation of the Riverside County Vision.

Appendix D Summary of Community Workshops

The first series of community workshops was held in June/July of 1999 at selected locations throughout the County of Riverside. The purpose of these workshops was to engage the public in dialog with the County of Riverside about issues relating to Riverside County's future and to introduce them to the RCIP planning process. Workshop discussion and comments were captured in a report, which also served to aid in the creation of the Vision and provide some focus to the policy direction contained in this General Plan.

Appendix E-1 General Plan Socioeconomic Buildout Assumptions and Methodology

This section describes the assumptions and methods used to determine housing, population, and employment projections for the General Plan Land Use Plan.

Appendix F-1 Riverside County Population and Employment Forecasts

This report details the projected population and employment figures for the County of Riverside, including each of the 19 Area Plans and March Joint ARB, to the year 2035. This report serves four purposes:

- To test alternative scenarios for the Riverside County update;
- To develop a consistent set of projections to achieve an integrated Riverside County General Plan;
- To develop a consistent set of projections for ancillary studies; and
- To develop a framework to test the implications of alternative policies.

Appendix G Fiscal Analysis

This documentation presents the fiscal implications for the area plans. It should be referred to especially in the case of amendment proposals to assess whether the proposed change is positive, negative or neutral from a fiscal standpoint.

Appendix H Safety Element Technical Background Report

This report is a comprehensive assessment of natural and man-made hazards in the County of Riverside, including but not limited to: earthquakes, landslides, subsidence/ settlement, floods, inundation, and wildland fire. The report served as the foundation for the Safety Element and had a significant impact on the pattern of land uses and policies for its implementation. This data should be the basis for more focused geotechnical analysis and clarity as projects are considered.

Appendix I-1 Noise Element Data

Technical data that did not need to be incorporated into the Noise Element has been included here. Information regarding studies, data collection, statistical projections, or relevant research are included here.

Appendix J Community Center Design Guidelines

As discussed more fully above, these guidelines should be the basic reference in devising quality development strategies for community center development.

Appendix K-1 Implementation Program

This appendix details the major implementation commitments associated with the General Plan. Since this program is intended to be updated annually, it will be necessary to make sure that any reference to it is the current version.

Certain actions within the program may have an impact on project review, such as, for example, zone changes or zoning ordinance revisions that have recently occurred.

Two levels of implementation are expressed here, both of them in matrix format. The first is a summary of major implementation initiatives called Administration Activities/Programs that are central to achieving the potential represented by the General Plan. The second is a more extensive list of actions organized by General Plan Element, derived from the policies in each element. Taken together, these commitments respond to the intent of the California Government Code that implementation is a logical and necessary obligation of public policy.

The structure of this appendix sets up a process to be expanded and maintained by the County of Riverside. This process will require completion of the implementation matrices described above, dealing with target date(s) for completion, funding sources, designation of the entity with primary responsibility for carrying out the action, and identification of support responsibilities. The process also entails annually reviewing the Implementation Plan and updating it based on accomplishments achieved, work not yet completed, and new initiatives stimulated by changing conditions and circumstances.

The focus here is on initiatives to be taken by the County of Riverside in creating, updating or facilitating tools needed to enable the County of Riverside to achieve its Vision. This focus is predicated on the fact that most of the General Plan policies will be implemented on an incremental basis as part of the ongoing project review process for public and private development/preservation projects. In other words, these policies are designed to influence how development and preservation occur through the normal land use management procedures conducted by the County of Riverside.

Appendix L-1 Airport Land Use Compatibility Plans

This appendix contains the text of each of the airport land use compatibility plans for the public use airports within Riverside County whose influence areas affect Riverside County territory.

Appendix M Health Indicators

This appendix is a compilation of health, social and environmental indicators. The indicators are grouped into meaningful topic areas and are meant to provide support and justification for the policies of the Healthy Communities Element.

Appendix N Air Quality Study

The Air Quality Study is presents the modeling data behind the Air Quality Element. The study lays out the modeling assumptions, provides a calculation summary of emissions by air quality management district, identifies the reduction calculations for both mobile source reductions and area source reductions, and provides the model output of the existing conditions and conditions at buildout.

Appendix O Major Investment Study

In addition to the corridors and study areas depicted in Figure C-1 of the Circulation Element, the Riverside County Transportation Commission completed a joint Major Investment Study (MIS) with the Orange County Transportation Authority (OCTA) for a Riverside County to Orange County corridor. This corridor has been identified as a mitigation measure for traffic impacts identified in the Draft EIR for this General Plan. The MIS identified a Locally Preferred Strategy (LPS) that was adopted by the RCTC and the OCTA.

Appendix P Housing Element Appendices

This appendix includes the housing inventory matrix, rezoning analyses and inventory mapping.

The Environmental Impact Report

While this document is not an integral part of the policy document, it is a valuable and critical resource in administering the General Plan. It contains a wealth of information that will help anyone proposing or reviewing a project do a better job of analysis. Moreover, it specifies an extensive list of mitigation measures and monitoring requirements that may apply to a particular project.

Interpreting the General Plan's Intent (Determining Consistency)

Because of the straightforward structure of the General Plan, the process of interpreting its intent is relative simple. As with any general plan that encompasses a huge territory characterized by a remarkable diversity of conditions and aspirations, this document contains a great deal of information and policy direction. Despite this, the following steps are aimed at defining a path that will lead to a clear understanding of the General Plan's intent.

Note that this discussion does not address zoning. The focus here is strictly on understanding the General Plan direction. Zoning designations and regulations are required by law to be consistent with the General Plan. Determining the zoning should be a first step to see what current regulations apply, but this should always be followed up by referring to the General Plan to confirm that the zoning is consistent. If the zoning is inconsistent with the General Plan, as required, then it needs to be changed or the General Plan needs to be amended (or sometimes both, depending on the situation and the uses being proposed).

- 1. Read the Summary Vision for Riverside County to understand the essence of the General Plan's intent. Refer to the complete version at a later stage in the analysis as noted below.
- 2. Determine the Foundation Component in the General Plan Land Use Element and read its description to understand the basic direction for development.
- 3. Be familiar with the countywide policies that relate to that designation because they apply in all area plans.
- 4. Determine the land use designation(s) from the area plan (or Land Use Element if not in an area plan).
- 5. Read the description of the designation(s) in the Land Use Element. This establishes the basic guidance regarding the General Plan's intent.
- 6. Read the policies of the area plan to understand the applicable local guidance.
- 7. Determine if the property in question is covered by other policies than those applicable throughout the area plan. Some area plans have such policies and others do not.
- 8. If the Community Center Guidelines apply, read those and determine a strategy for responding to them as thoroughly as possible.

- 9. At this point sufficient knowledge of General Plan direction should be assembled to determine if further reference to the full Vision (Chapter 2) or the General Planning Principles (Appendix B-1) is required to add dimensions to guidance for the proposed project.
- 10. Determine if background in the Safety Element Technical Background Report (Appendix H), Traffic Report, or the Environmental Impact Report applies to the proposed project. Note: It may be possible to tier off of the General Plan EIR and reduce the scope of project-related environmental documentation.

Monitoring of Development and Conservation

Proper administration of the General Plan requires a contemporary and consistently maintained monitoring system to provide an ongoing understanding of the progress being made in implementing the General Plan. Given the solid GIS-generated, property-based mapping system and documentation of the General Plan's land use designations, this should not be a technically challenging process. The purpose of this discussion is to provide general guidance for the monitoring system, not to design it in detail. Complete design, initiation and operation of the monitoring system is a critical task identified in the Implementation Program, Appendix K.

These numbers can and should be aggregated in any General Plan amendment package that encompasses several amendment proposals to facilitate an understanding of their cumulative effect. The County of Riverside will need to prepare appropriate procedural materials to enable the proper information to be developed in conjunction with General Plan amendment applications.

General Plan Certainty System

The Riverside County General Plan Certainty System provides clarity regarding the interpretation and use of the General Plan in ongoing decision making and sustains the General Plan's policy direction over time. Circumstances will change, imperfections in the General Plan will be discovered, and events will occur that require changes in the General Plan. Despite these probabilities, the intent is to maintain a high level of confidence in the General Plan and enable people affected by it to have reasonable expectation regarding how it will impact them. Its interpretation, application and amendment are very important matters, not to be taken lightly. Therefore, tThe General Plan Certainty System consists of four (4) parts:

- 1. Presentation. To the maximum extent possible, provisions of the General Plan are clearly mapped. Further, the language of the General Plan seeks to be clear, simple and deliberate, with intent indicated for each provision of the General Plan (see Interpreting the General Plan's Intent section, above).
- 2. Interpretation. Guidelines for interpreting the intent of the General Plan where conflict arises are provided for resolution of the issue, including a defined process for making the interpretations and determining their potential for future changes in the General Plan (see Interpreting the General Plan's Intent section, above).
- 3. Monitoring. A responsive, highly automated system for monitoring implementation of the General Plan, including documentation of development and land preservation activities, is established and maintained. Reference to this monitoring information is an essential ingredient in the consideration of any change in the General Plan, especially regarding land use designations. The information in this system is maintained in such a way that basic development activity can be summarized at any time, including status as part of an annual report on General Plan progress (see Monitoring of Development and Conservation section, above).

- 3. Monitoring. Continue monitoring and evaluating all forms General Plan Amendments to ensure effectiveness and that the County's goals and objectives are being met. Report on any legislative changes at the Federal or State level that could impact how the Riverside County General Plan is used and implemented.
- Amendment. It is clear that the timing, rationale, and process for amending the General Plan are critical ingredients in maintaining the long term viability of the General Plan. That is why carefully crafted descriptions of this aspect of the Certainty System are included in the General Plan.

Objectives

The General Plan Certainty System seeks to satisfy the following objectives.

- Maintain the integrity and confidence level in the new Riverside County General Plan.
- "Stay the Course" regarding its direction long enough to be able to determine its workability.
- Define categories of amendment activity so they are universally understood.
- Establish a set of rules and procedures for amending the General Plan that are fair, firm, and equitable.
- Empower any property owner to seek an amendment according to established procedure.
- Avoid erosion of the foundation components upon which the General Plan is structured by requiring consideration of any changes to them to be conducted in a comprehensive manner.
- Provide for extraordinary and unpredictable circumstances.
- Establish clarity in assessing proposed amendments at the earliest possible time in the process.
- Clarify the findings appropriate to each amendment category.
- 10. Monitor progress in implementing the General Plan and correct its direction where necessary.
- 11. Promote coordinated long-range planning and implementation between the cities and the County of Riverside.
- 12. Strike a sustainable balance between certainty in critical aspects of the General Plan, and flexibility in response to changing conditions and opportunities where such flexibility contributes to achieving the Vision.

General Plan Amendment Categories

Four amendment categories are part of the system:

involves changes in the General Plan of a technical nature, including technical corrections discovered in the process of implementing the General Plan. Some Entitlement Amendments

- Corrections to statistics;
- Mapping error corrections;

- General Plan's intent; or
- Control District.
- Entitlement/Policy Amendment involves changes in land-use located entirely within a General Plan Foundation Component but that do not change the boundaries of Components shall be deemed Entitlement/Policy Amendments requirements applicable to this category:
 - change from any other Foundation Component.
 - category.

Vision, a General Plan Principle, or a Foundation Component (c expressly provided).

- - The Riverside County Vision
 - The General Plan Planning Principles
 - A Foundation Component of the General Plan. These include any change:
 - (1) From, but not to, the Open Space Foundation Component.

plan is enacted where before it did not.

The following three (3) General Plan Amendment categories are part of the system:

- 1. General Plan Land Use Amendment (Non-Foundation Change) Involves changes in land use designations located entirely within the same General Plan Foundation Component.
- 2. General Plan Land Use Amendment (Foundation Change) Involves changes in land use designations from one Foundation Component to a different Foundation Component.
- General Plan Amendment Involves text amendments, Area Plan amendments, or amendments to another Element.

Foundation Component Amendment Eligibility Requirements

Consideration of a proposed Foundation Component amendment, with the exception of going into Agriculture or Open Space, shall be based upon adequately demonstrating the necessity for such change though discussion of the following eligibility requirements:

- 1. There are other existing or proposed developments within close proximity, that are similar to or compatible with the proposed Foundation Component amendment site; and,
- There are adequate primary and secondary access locations (where required) to the Foundation Component amendment site or access locations will be constructed as part of the implementing project, to ensure public health, safety, and welfare; and,

- 3. There are sufficient utilities to adequately serve the proposed Foundation Component amendment site or utilities will be constructed as part of the implementing project; and,
- 4. The proposed Foundation Component amendment will not have a negative impact to the County's Habitat Conservation Plans or other natural resources.

For a Foundation Component amendment going out of Agriculture, the following additional eligibility criteria also applies:

- 1. An Agriculture Foundation Component Amendment may be allowed for up to 7% of all land designated as Agriculture to change to another Foundation Component during each 2½ year Agriculture Foundation Amendment Cycle and convert to another land use consistent with the amended Foundation and land use designation. The 7% conversion can occur at any time within the 2½ year Agriculture Foundation Amendment Cycle and is to be calculated separately for each of the following three areas:
 - a. The area covered by the Palo Verde and Desert Center Area Plans and the Eastern Desert Land Use Plan; and,
 - b. The area covered by the Eastern Coachella Valley and Western Coachella Valley Area Plans; and,
 - c. The area covered by all other Area Plans.

Should the 7% agricultural conversion amount be met during any 2 ½-year Agriculture Foundation General Plan Amendment Cycle, additional approvals of an Agriculture Foundation Component Amendment could occur on a case-by-case basis, subject to the following additional eligibility requirements:

a. What conditions or circumstances justify modifying the Agriculture Foundation Component of the General Plan beyond the 7%, such as labor, water availability, water cost, commodity prices, market conditions and marketability, trade issues, estate issues, lender and financing flexibility for farm planning, exotic pests, quarantines, diseases, foreign competition, government regulation, union issues, death/illness/retirement of farmer, or other business considerations related to undue hardships.

Required and Optional General Plan Amendment Findings

Findings must be commensurate with the significance of the amendment decision being sought. In addition to information submitted by applicants or initiators of proposed amendments, findings will be supplemented by information generated by the General Plan Monitoring Program during the review and research process. This data will be updated periodically with the intent of enabling decision makers to understand the status of the General Plan and the implications of proposed changes to it. The following findings are associated with the proposed amendment eategories types.

- 1. Technical Amendment Findings. The first finding and any one or more of the subsequent findings would justify a technical amendment:
 - a. The proposed amendment would not change any policy direction or intent of the General Plan.
 - b. An error or omission needs to be corrected.

- be changed to properly reflect the policy intent of the General Plan.
- point of clarification is needed to more accurately express the General Plan's meaning or
- minor change in boundary will more accurately reflect geological or topographic
- Entitlement/Policy Amendment Findings. The first two findings and any one or more of the subsequent findings would justify an entitlement/policy amendment:
 - The proposed change does not involve a change in or conflict with:
 - (1) The Riverside County Vision;
 - Any General Plan Principle; or
 - Any Foundation Component designation in the General Plan except
 - The proposed amendment would either contribute to the achievement of the purposes of the General Plan or, at a minimum, would not be detrimental to them.
 - Special circumstances or conditions have emerged that were unanticipated in preparing the General Plan.
 - A change in policy is required to conform to changes in state or federal law or applicable findings
 - An amendment is required to comply with an update of the Housing Element or change in State Housing Element law.
 - jobs created by construction of the project itself), that contribute directly to Riverside County's economic base and that would improve the ratio of jobs to workers in the County of Riverside.
 - An amendment is required to address changes in public ownership of land or land not under Board of Supervisors' land use authority.
- Foundation Amendment Findings. The premise for a Foundation Amendment is that the General Plan will only be amended in any fundamental way for significant cause. The intent with Foundation Amendment Findings is to consider them comprehensively in the context of the entire General Plan and their overall vays. The first would be as part of a regular General Plan Review cycle. The first finding is required for this type of amendment. The second means of making a Foundation Amendment would be as a result of extraordinary events. The first two and any one or more of the subsequent findings will be necessary to justify an Extraordinary Amendment, which does not have to comply with the General Plan Review eyele:

Chapter 11

Administration Element

- a. The foundation change is based on substantial evidence that new conditions or circumstances disclosed during the review process justify modifying the General Plan, that the modifications do not conflict with the overall Riverside County Vision, and that they would not create an internal inconsistency among the elements of the General Plan.
- b. A condition exists or an event has occurred that is unusually compelling and can only be rectified by making changes in the current Riverside County Vision, Principles, or Policies. An Extraordinary Amendment must still result in a consistent direction for the subsequent planning period. The condition stimulating such an amendment may involve private properties, public properties or both.
- c. An unconstitutional taking of property might occur without the amendment, and the amendment alters the General Plan Foundation Component designation only to the extent necessary to avoid the taking.
- d. A natural or man-made disaster or public emergency has occurred that warrants a change in General Plan Foundation Component designations in order to protect the public health, safety and welfare.
- e. A component amendment is required to conform to changes in state or federal law, or applicable findings of a court of law.
- f. A component change is required to comply with an update of the Housing Element or change in State Housing Element law.
- g. A General Plan component amendment is required to significantly expand basic structural employment (such as employment in industry, agricultural processing, and research and development), that creates permanent jobs exclusive of the construction jobs generated by the project itself, and excluding jobs in retail, service commercial, warehousing, and residential uses not ancillary to the primary employment use.
- h. A component change is necessary to facilitate implementation of open space or transportation corridor designations arising from the MSHCP and Community Environmental Transportation Acceptability Program (CETAP) programs that are contained in this General Plan, and that could not be accomplished by a lesser change in the General Plan.
- i. All land use conversions from the Rural Community to Community Development Foundation Component within the City Sphere of Influence Area should be consistent with the policies outlined in the Land Use Element of Chapter 3.
- 5. Agriculture Foundation Amendment Findings. To justify an agriculture foundation amendment, the proposed amendment would have to either contribute to the achievement of the purposes of the General Plan or, at a minimum, not be detrimental to them.
- 1. General Plan Land Use Amendment (Non-Foundation Change) Findings:
 - a. The potential impacts of the proposed General Plan Land Use amendment have been assessed and have been determined to not be detrimental to the public health, safety, or welfare; and,

- b. The proposed General Plan Land Use amendment is consistent with the goals, objectives, and policies of the General Plan and applicable Area Plan; and,
- c. The proposed General Plan Land Use amendment is compatible with the surrounding land uses; and.
- The proposed General Plan Land Use amendment is suitable for the location, access, visual character, and topography of the subject property.
- 2. General Plan Land Use Amendment (Foundation Change) Findings:
 - The potential impacts of the proposed Foundation Component and General Plan Land Use amendments have been assessed and have been determined to not be detrimental to the public health, safety, or welfare; and,
 - b. The proposed Foundation Component and General Plan Land Use amendments are consistent with the goals, objectives, and policies of the General Plan and applicable Area Plan; and,
 - The proposed Foundation Component and General Plan Land Use amendments are compatible with the surrounding land uses; and,
 - d. The proposed Foundation Component and General Plan Land Use amendments are suitable for the location, access, visual character, and topography of the subject property; and,
 - *Restate how the proposed Foundation Component and General Plan Land Use amendments meet each of the eligibility requirements.
- 3. General Plan Amendment Findings:
 - The potential impacts of the proposed General Plan amendment have been assessed and have been determined to not be detrimental to the public health, safety, or welfare; and,
 - b. The proposed General Plan amendment is consistent with the goals, objectives, and policies of the General Plan and applicable Area Plan; and,
 - The proposed General Plan amendment will not result in a conflict with the County's Land Use Ordinance.

Amendment Process Cycles

The three (3) types of General Plan Land Use Amendments and their subsequent processes are subject to the following:

- 1. General Plan Land Use Amendment (Non-Foundation Change)
 - a. A non-Foundation Component General Plan Land Use Amendment may be submitted for processing at any time and is not subject to a Board of Supervisors initiation.
- 2. General Plan Land Use Amendment (Foundation Change)

- a. A Foundation Component General Plan Land Use Amendment may be submitted for processing at any time, but it is first subject to obtaining Board of Supervisors Initiation support by meeting all eligibility requirements.
- b. A General Plan Land Use Amendment that proposes to change into Agriculture or Open Space, may be submitted for processing at any time and is not subject to a Board of Supervisors initiation.
- c. A General Plan Land Use Amendment that proposes to change out of Agriculture or Open Space, may be submitted for processing at any time, but it is first subject to obtaining Board of Supervisors Initiation support by meeting all eligibility requirements.

3. General Plan Amendment

a. Any other General Plan text amendment or amendment to other Elements, may be submitted for processing at any time and is not subject to a Board of Supervisors initiation.

Four types of amendment cycles are provided, as discussed below.

- 1. General Plan Review Cycle. This cycle first occurs in 2008, five years after the initial adoption of this General Plan and then occurs periodically every eight years thereafter. This cycle:
 - a. Includes amendments proposed by the County of Riverside or by private property owners. Prior to Board initiation, proposed amendments shall be submitted in a comprehensive manner for review and comment to a general plan community advisory committee appointed by the Board. Comments received from the committee shall be included in subsequent initiation proceedings before the Planning Commission and the Board.
 - b. Is intended to assess General Plan progress and issues related to its implementation.
 - c. Is the only time, other than a declared extraordinary amendment or an Agriculture Foundation Component amendment, that a Foundation Component of the General Plan may be considered for change.
 - d. May include policy, entitlement and technical amendment proposals determined to be an appropriate part of this cycle. With respect to amendments proposed by the County of Riverside (including Foundation Component amendments), the Planning Director in his discretion may defer processing and hearing such amendments provided only that final action on proposed Foundation Component amendments shall be taken prior to the start of the next cycle. If final action is not taken on any Foundation Component amendment prior to the start of the next cycle, such amendment shall be subject to a new Board review for initiation. The Planning Director may determine to process any amendment separately or may combine any amendment with others for processing and hearing.
 - Extends planning projections into the future, identifying required adjustments in the General Plan, if any, to accommodate anticipated needs.
 - t. Includes special considerations to reassess the Vision and Planning Principles and recommit to them. This periodic review also permits a comprehensive evaluation of CETAP and MSHCP

- progress, with refinements as necessary to enable further implementation of these programs as they relate to the General Plan.
- g. Foundation Component amendments proposed by private property owners determined to be appropriate part of this cycle shall generally be processed and heard separately. The Planning Director may determine to process any such amendment separately or may combine any such amendment with others for processing and hearing. Final action on any such Foundation component amendment shall be taken prior to the start of the next cycle. If final action is not taken prior to the start of the next cycle, any such amendment shall be subject to a new Board review for initiation.

Foundation Component Initiation Process

Prior to processing a General Plan Amendment application that involves a Foundation Component change, initiation support from the Board of Supervisors must first be obtained, through the following process:

- 1. Submit a General Plan Amendment application, with a request for a Foundation Component initiation.
- 2. Provide sufficient details and discussion about how the subject site qualifies for a Foundation Component amendment by demonstrating how the proposed change meets each of the eligibility requirements.
- 3. The Foundation Component General Plan Amendment initiation request will be presented to the Planning Commission for a recommendation to the Board of Supervisors.
- 4. The Board of Supervisors will consider the request and make the final initiation determination, based upon eligibility requirements. If the application obtains an initiation determination, the following next steps shall be followed:
 - a. An implementing project shall be submitted along with the General Plan Amendment application, within six (6) months of initiation date.
 - b. In certain circumstances, a Foundation Component General Plan Amendment may be processed without an implementing project, subject to consideration and support by the Board of Supervisors during the initiation process.
- 5. If the Board of Supervisors denies the initiation request, the property may not be considered for another Foundation Component change for one (1) full year.

Amendment Cycles

- 1. General Plan Amendment Cycle. This cycle occurs annually and is administered to permit effective scheduling and clustering of amendment proposals and enable current staffing to plan for necessary workloads. Administrative decisions regarding the cycle involve only scheduling of amendment activity. Approval, conditional approval, or denial of an amendment request occurs only through the public hearing process. The Cycle:
 - a. Involves policy amendment and changes in entitlement within Foundation Components, but not between them (except otherwise expressly provided).

- accordance with state law).
- Is administered and approved by the Planning Director.
- d. Does not permit changes in the Riverside County Vision or Planning Principles.
- Amendment Event. This type of amendment does not operate on a cycle. It may be initiated
- Amendment Cycle and is to be calculated separately for each of the following three areas:
 - area covered by the Palo Verde and Desert Center Area Plans and the Eastern Desert Land Use Plan;
 - The area covered by the Eastern Coachella Valley and Western Coachella Valley Area Plans; and
 - The area covered by all other Area Plans.

Agriculture Foundation General Plan Amendments in Excess of 7%: Should the 7% agriculture action. The Agricultural Task Force and the Board would consider the following criteria in considering approvals

undue hardships; and,

The availability of adequate infrastructure to serve the proposed land use designation

The Incentives System

Considerable discussion occurred during the RCIP process regarding an incentives system to stimulate desired compactness of development in certain areas, to generate funds for preserving permanent multipurpose of and selected infrastructure improvements. There are three tiers to the Incentives Program; the which is within Community Centers, followed by an application of the program within Community Development location of development on a portion of rural and agricultural parcels in exchange for some increase in overall writing, the details of this system are drafted but not resolved. Prior to the determination will be made regarding direction to be included in the General Plan and commitment de in the Implementation Program as a means of testing such a system.

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RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION



November 29, 2023

CHAIR Steve Manos Lake Elsinore Desiree McGriff, Project Planner City of Menifee Community Development Department 29844 Haun Road Menifee CA 92586

VICE CHAIR **Russell Betts** Desert Hot Springs

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW - DIRECTOR'S **DETERMINATION**

COMMISSIONERS John Lyon Riverside

File No.: ZAP1033PV23

Related File Nos.:

Russell Betts

PLN23-0060 (Specific Plan Amendment), PLN22-0246 (Major

Desert Hot Springs

Modification Tentative Tract Map No. 36658) Zone E (partially outside the airport influence area)

Richard Stewart Moreno Valley Compatibility Zone: 330-230-042, 330-230-043, 330-220-016, 330-220-017

Michelle Geller Riverside

Dear Ms. McGriff:

APNs:

Vernon Poole

Murrieta

STAFF

Director Paul Rull

Simon A. Housman Jackie Vega Barbara Santos

County Administrative Center 4080 Lemon St. 14th Floor. Riverside, CA 92501 (951) 955-5132

www.rcaluc.org

As authorized by the Riverside County Airport Land Use Commission (ALUC) pursuant to its Resolution No. 2020-02, as ALUC Director, I have reviewed City of Menifee Case Nos. PLN23-0060 (Specific Plan Amendment), PLN22-0246 (Major Modification Tentative Tract Map No. 36658), a proposal modifying previously found consistent case ZAP1006PV14, amending the Cimarron Ridge Specific Plan transferring 49 residential lots from PA-4 to PA-5 and transferring the 10.9-acre park from PA-5 to PA-4 but does not propose any alterations to density as a result of these revisions. Planning Area No. 4, will consist of 81 residential lots and include a 10.9-acre park consisting of active and passive uses and amenities, including a dog park, concession stand, and bathrooms for the community and on-site parking. Planning Area No. 5 will consist of 151 single-family residential lots, a 1.5-acre recreation area, and 1.2-acre pickle ball facility in conjunction with Planning Area No. 6, which proposing 96 residential lots, and both Planning Areas are age restricted, gated communities. The modifications are proposed for all streets servicing TR36658-5, and TR36658-6, will be converted from public streets to private streets. The design of the intersection of Smokey Quartz Street, and Goetz Road, will be revised to accommodate the proposed gated entry turnaround prior to the gate addition. Gates will also be added to the east entry of phase 5 on Byers Road and the north entry on McLaughlin Road. The proposed modifications to the tentative tract map will not add or reduce the approved number of residential lots.

The site is located within Airport Compatibility Zone E of the Perris Valley Airport Influence Area (and partially outside the AIA), which does not restrict residential density or non-residential intensity.

The proposed amendments do not involve changes in development standards or allowable land uses that would increase residential density or non-residential intensity. Therefore, these amendments have no possibility of having an impact on the safety of air navigation within the Perris Valley Airport Influence Area.

As ALUC Director, I hereby find the above-referenced project CONSISTENT, with the 2011 Perris Valley Airport Land Use Compatibility Plan, provided that the City of Menifee applies the

AIRPORT LAND USE COMMISSION

following recommended conditions:

CONDITIONS:

- 1. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky.
- 2. The following uses shall be prohibited:
 - (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
 - (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
 - (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)
 - (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.
- 3. The attached notice shall be given to all prospective purchasers and/or tenants of the portions of the property within the Perris Valley Airport Influence Area.
- 4. Any new retention basins on the site shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the retention basin(s) that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping.
- 5. Prior to adoption of this Specific Plan by the City Council, the applicant shall have received a determination of "Not a Hazard to Air Navigation" from the Federal Aviation Administration (FAA) Obstruction Evaluation Service for the following lots: 11, 146, 168, 177, 232, 242, 271, 338, 343, 465, 500, 512, 518, 521, 580, 583, and 586. (as amended by ALUC on May 8, 2014)

(Condition No. 5 is considered to have been MET as of May 27, 2014.)

The following conditions have been added subsequent to the ALUC hearing pursuant to the terms of the FAA Obstruction Evaluation Service letters issued on May 19, 2014 and May 27, 2014 for Aeronautical Study Nos. 2014-AWP-3132-OE through 2014-AWP-3147-OE, and 2014-AWP-3149-OE.

6. The Federal Aviation Administration has conducted aeronautical studies of a sample of 17 lots within the proposed tract map (Aeronautical Study Nos. 2014-

AIRPORT LAND USE COMMISSION

AWP-3132-OE through 2014-AWP-3147-OE, and 2014-AWP-3149-OE) and has determined that neither marking nor lighting of structures will be necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with FAA Advisory Circular 70/7460-1 K Change 2 and shall be maintained in accordance therewith for the life of the project.

- 7. The maximum elevation at the top of any proposed structure, including all roof-mounted appurtenances (if any), shall not exceed 1,688 feet above mean sea level.
- 8. The maximum elevation cited above shall not be increased, nor shall any structure be developed at coordinates that are closer than 8,153 feet from the southerly terminus of the runway without further review by the Airport Land Use Commission and the Federal Aviation Administration.
- 9. Temporary construction equipment such as cranes used during actual construction of structures shall not exceed a height of 40 feet unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.
- 10. Within five (5) days after construction of structures on each of the 17 lots cited above reaches its greatest height, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration. (Go to https://oeaaa.faa.gov for instructions.) This requirement is also applicable in the event the project is abandoned.

[Note: Prior to issuance of building permits for any lot within Tentative Tract Map No. 36658, the applicant shall provide evidence that either: (a) the elevation of the structure at its top point in feet above mean sea level would not exceed the elevation of the runway at Perris Valley Airport at its southerly terminus by more than one foot for every 100 feet of distance between the structure and said southerly terminus of the runway; (b) the Federal Aviation Administration has issued a Determination of No Hazard to Air Navigation for that lot allowing for a top point elevation that equals or exceeds the proposed top point elevation; or (c) the Federal Aviation Administration Obstruction Evaluation Service has issued a statement that review of the proposal for the specific lot is not required due to its previous review and determination for the 17 lots specified above.]

If you have any questions, please contact me at (951) 955-6893.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Paul Rull, ALUC Director

Attachments: Notice of Airport in Vicinity

cc: Pulte Group (applicant/representative/property owner)
Gary Gosliga, March Inland Port Airport Authority

Major. David Shaw, Base Civil Engineer, March Air Reserve Base

ALUC Case File

X:\AIRPORT CASE FILES\Perris Valley\ZAP1033PV23\ZAP1033PV23.LTR.doc

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)

NOTICE

THERE IS AN AIRPORT NEARBY.

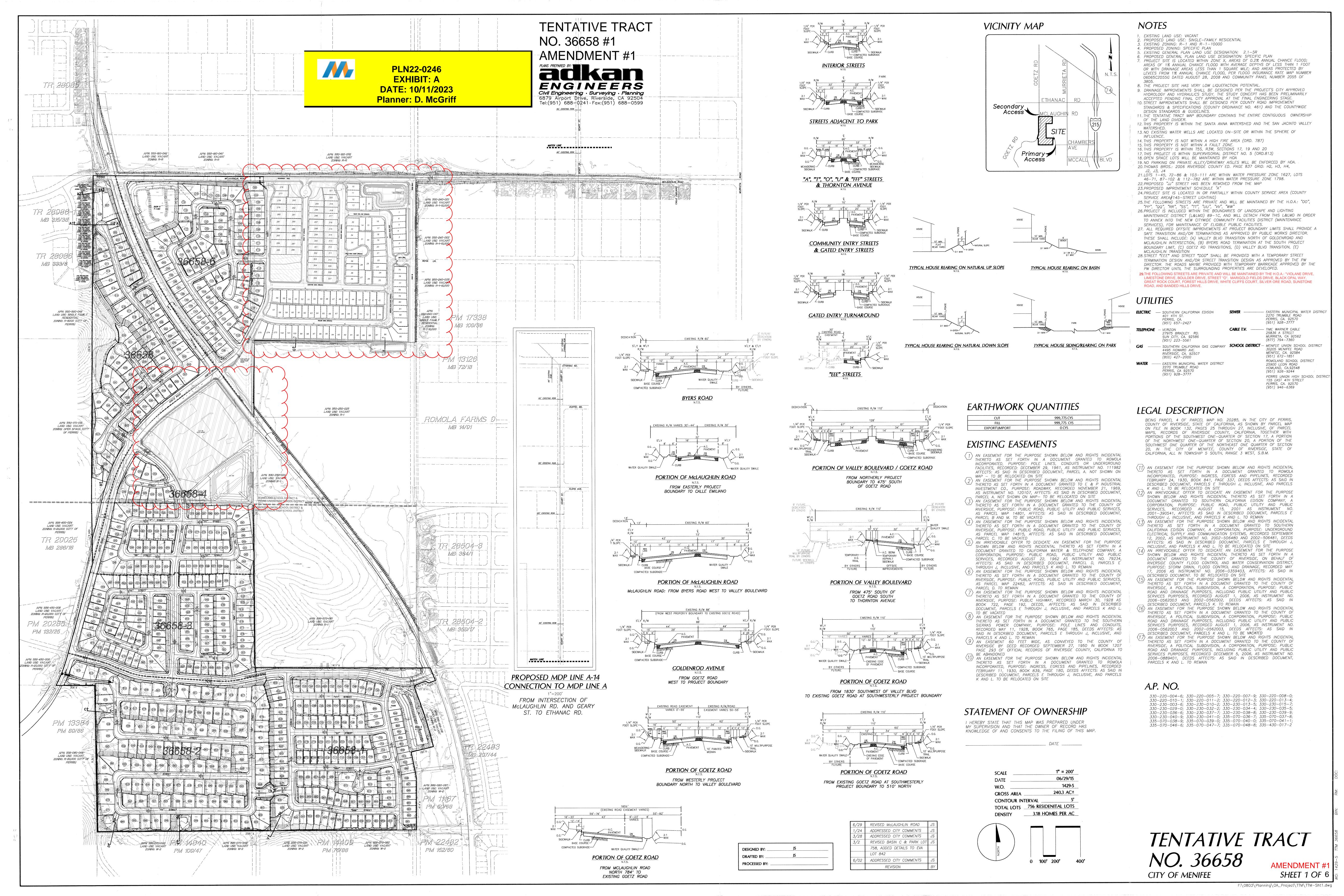
THIS STORM WATER BASIN IS DESIGNED TO HOLD
STORM WATER FOR ONLY 48 HOURS AND
NOT TO ATTRACT BIRDS

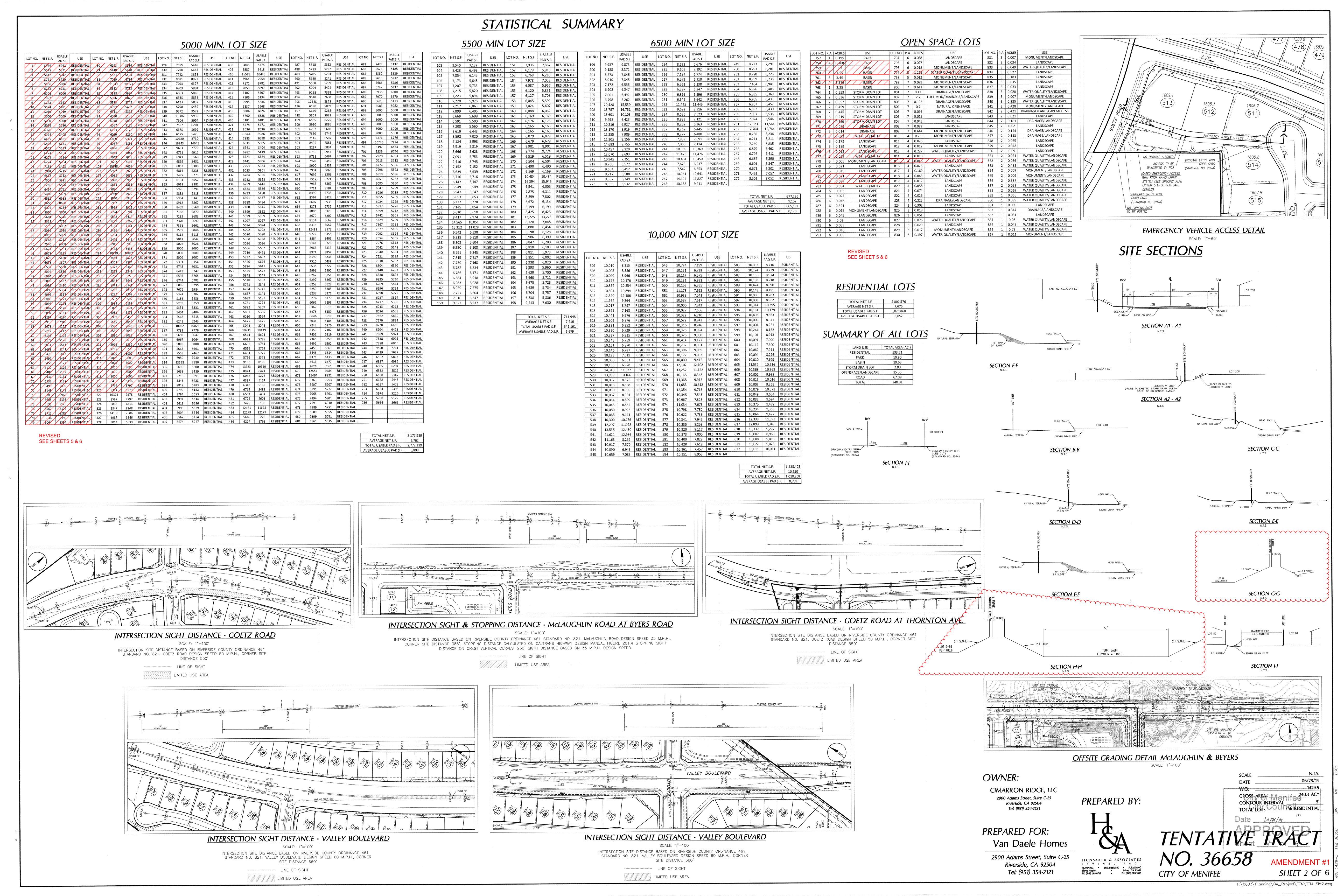
PROPER MAINTENANCE IS NECESSARY TO AVOID

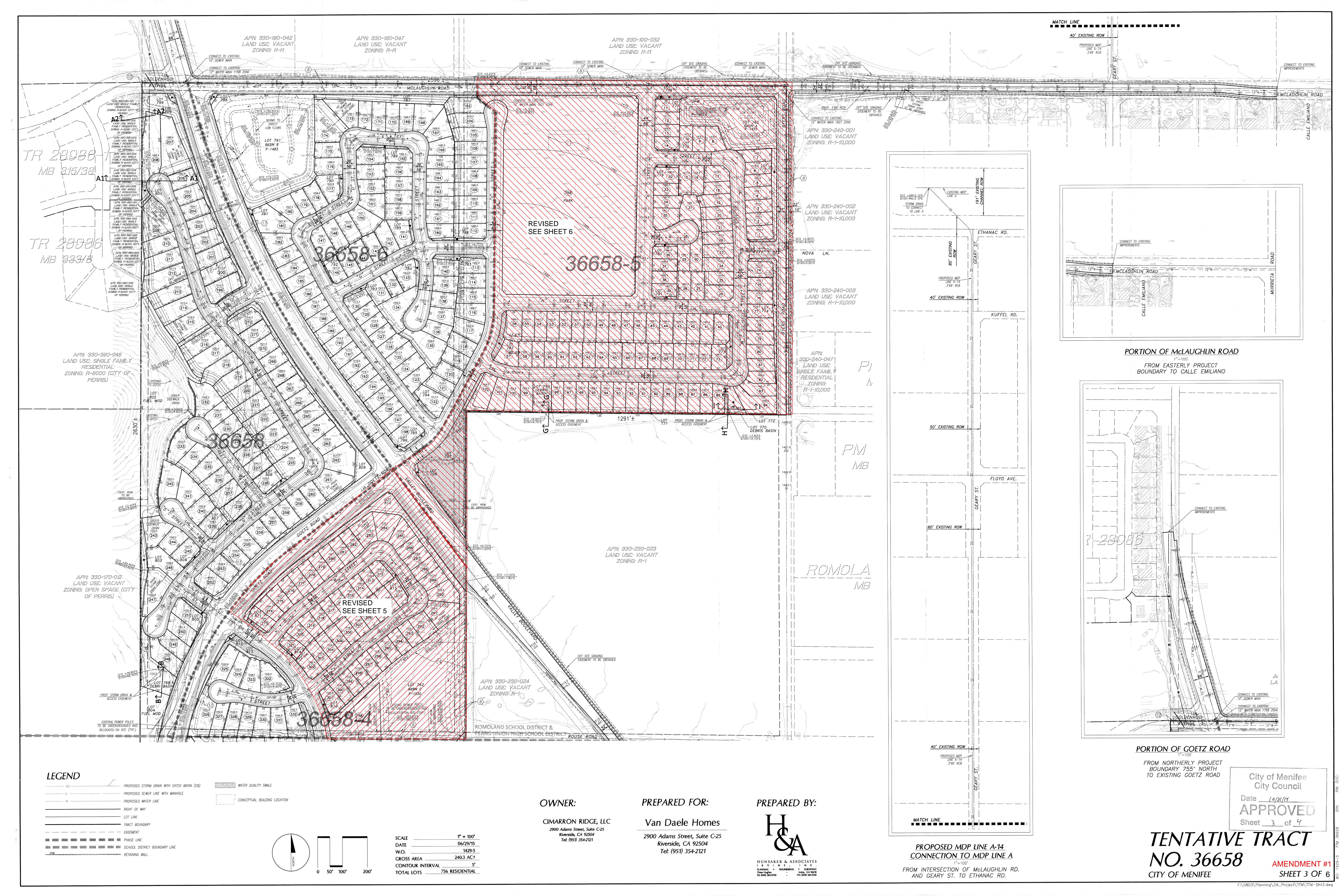
BIRD STRIKES

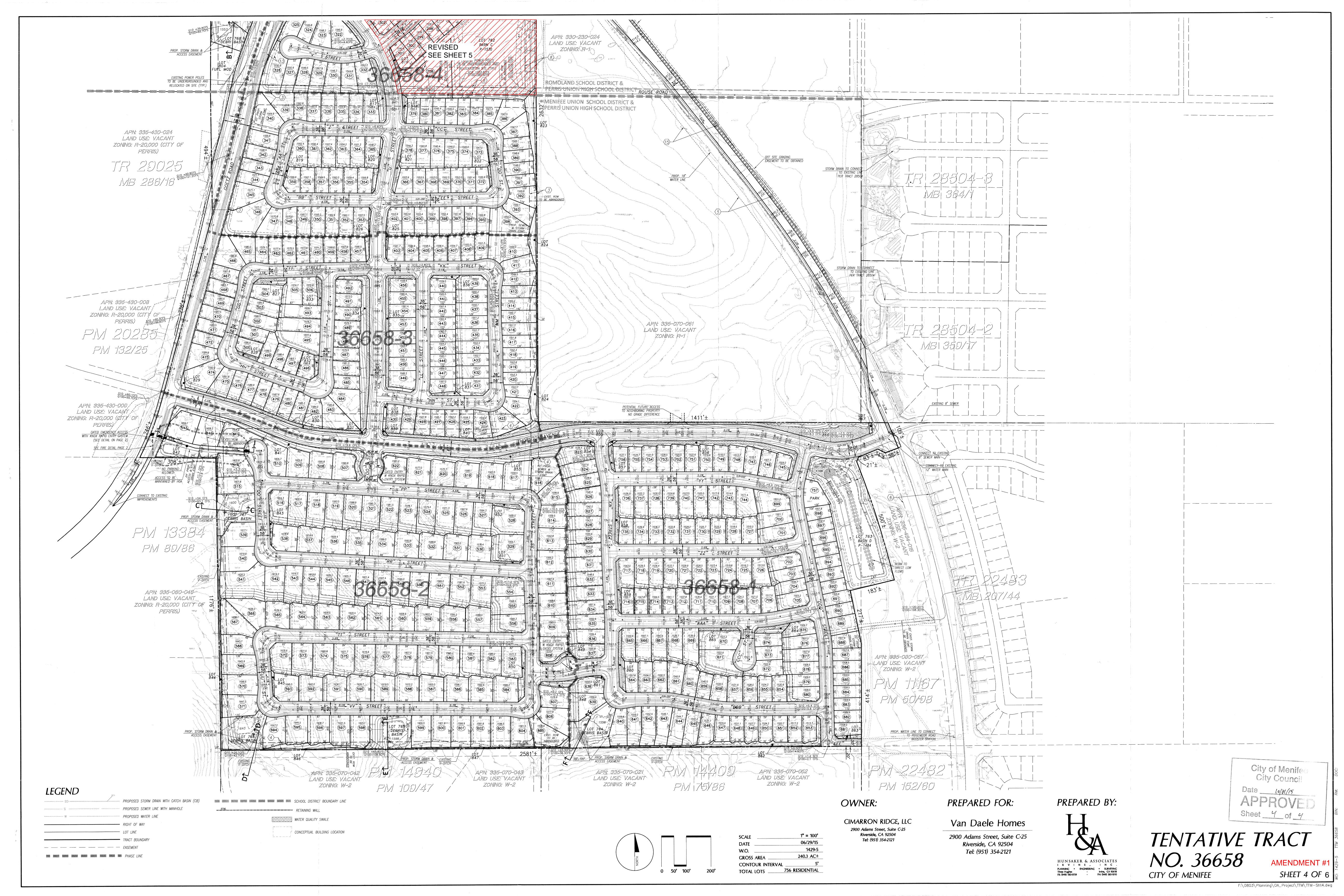


Name:	Phone:	









CIMARRON RIDGE TENTATIVE TRACT 36658 AMENDMENT#1

ZONING/LAND USE EXISTING LAND USE: VACANT SINGLE—FAMILY RESIDENTIAL PROPOSED LAND USE: EXISTING GENERAL PLAN LAND USE: PURPOSED GENERAL PLAN LAND USE: SPECIFIC PLAN R-1 AND R-1-10000 PROPOSED ZONING: SPECIFIC PLAN UTILITY PURVEYORS EASTERN MUNICIPAL WATER DISTRICT EASTERN MUNICIPAL WATER DISTRICT ELECTRIC: SOUTHERN CALIFORNIA EDISON GAS: TELEPHONE: CABLE: SOUTHERN CALIFORNIA GAS COMPANY VERIZON TIME WARNER SETBACKS MINIMUM FRONT YARD MINIMUM FRONT GARAGE . MINIMUM CORNER SIDE YARD MINIMUM INTERIOR SIDE YARD .

MINIMUM REAR YARD .

MAXIMUM HEIGHT . MINIMUM LOT SIZE

MINIMUM PAD SIZE

SCALE: 1" = 250'

AMENDMENT DESCRIPTION: AMEND THE NUMBER OF LOTS FOR TR36658-4 & TR3665-5; 49 LOTS TO BE RELOCATED FROM TR36658-4

TR36658-4 AMENDMENT NOTES: APPROVED NUMBER LOTS PER TENTATIVE TRACT 36658: 130 AMEND TOTAL NUMBER OF LOTS: 81 AMEND LABELING OF OPEN SPACES: 82, 83, 84, 85, 86, 87, 88,

-TR 36658-5

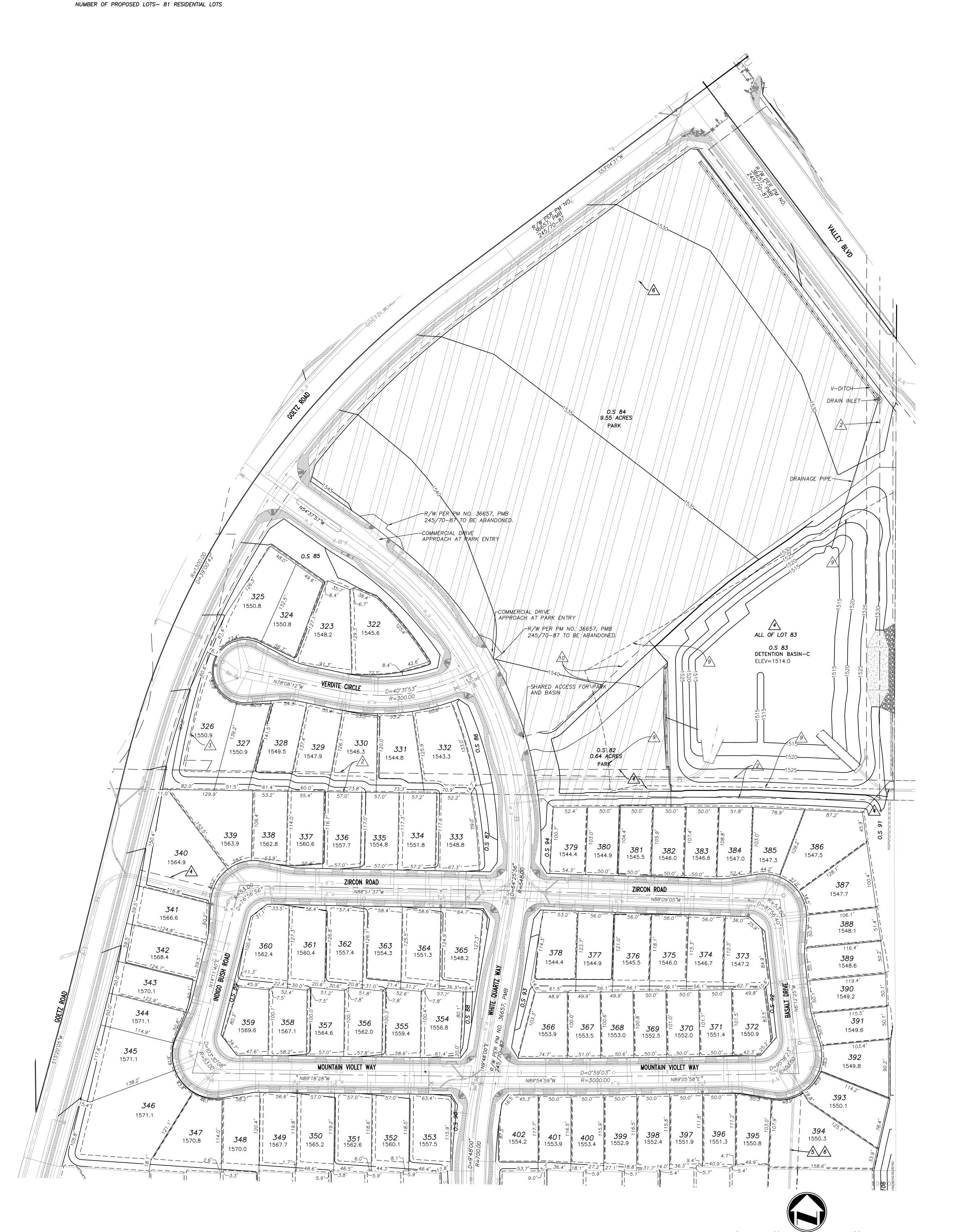
49 LOTS RELOCATED

OPEN SPACE NO. 84: 9.55 ACRES, INTENDED FOR PARK OPEN SPACE NO. 82: 0.64 ACRES, INTENDED FOR PARK

IMPROVEMENTS

TM 36658 119 O.S AMEND BY 172 O.S. AREA REDUCED FROM 9.94 ACRES TO -TR36658-4 49 LOTS TRANSFERRED AMEND BY NEW 84 O.S. 9.55 ACRES, AND 82 O.S. 0.64 ACRES. TR 36658-2

TRACT NO. 36658-4



TR36658-4 EASEMENT NOTES

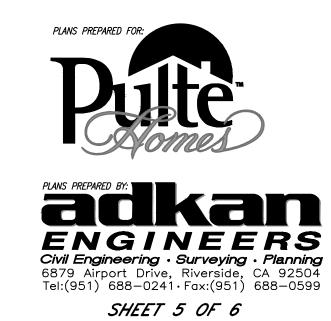
- 1 THE UNITED STATES OF AMERICA, HOLDER OF RIGHTS OF WAY FOR DITCHES AND CANALS, RESERVED IN DOCUMENT RECORDED

 NOVEMBER 29, 1915 IN BOOK 7, PAGE 82 OF PATENTS, RECORDS

 OF RIVERSIDE COUNTY. NOT PLOTTABLE FROM THE RECORD.
- SOUTHERN SIERRAS POWER COMPANY, HOLDER OF EASEMENT FOR POLE LINES AND CONDUIT PER DOCUMENT RECORDED MAY 11, 1928 IN BOOK 765, PAGE 185 OF DEED
- SOUTHERN CALIFORNIA EDISON COMPANY, HOLDER OF AN EASEMENT FOR UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION SYSTEM PER DOCUMENT RECORDED SEPTEMBER 12, 2002 AS INST.
- NO. 2002-506480 OF OFFICIAL RECORDS. RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, HOLDER OF A STORM DRAIN EASEMENT PER DOCUMENT
- RECORDED ______, AS DOCUMENT NO. _____ OF OFFICIAL RECORDS. RIVERSIDE COUNTY COMMUNITY FACILITIES DISTRICT, HOLDER OF AN EASEMENT FOR STORM DRAIN PURPOSES PER DOCUMENT RECORDED ______, AS DOCUMENT NO. ______ OF OFFICIAL RECORDS.
- EASEMENT FOR SEWER AND INCIDENTAL PURPOSES IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT RECORDED ______, AS DOCUMENT NO. ______ OF OFFICIAL RECORDS.
- ALICE O. HANSEN AND A. A. HANSEN, OWNERS OF 1/2 INTEREST IN ALL OIL AND MINERAL RIGHTS PER DEED RECORDED NOVEMBER 4, 1920 IN BOOK 537, PAGE 292 OF DEEDS, RECORDS OF RIVERSIDE
- 8 SOUTHERN CALIFORNIA EDISON COMPANY, OWNER OF ALL URANIUM, THORIUM AND OTHER FISSIONABLE MATERIALS, ALL OIL, GAS,
- PETROLEUM. ASPHALTUM. AND OTHER HYDROCARBON SUBSTANCES AND OTHER MINERALS AND MINERAL ORES PER DEED RECORDED
 JUNE 2, 1997, AS INSTRUMENT NO. 193338 OF OFFICIAL RECORDS, RECORDS OF RIVERSIDE COUNTY.
- EASEMENT TO THE COUNTY OF RIVERSIDE, ON BEHALF OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, FOR STORM DRAIN PURPOSES PER INST. NO. 2006-0359403, O.R. REC. 5-17-2006, TO

A NON-EXCLUSIVE ACCESS EASEMENT RESERVED IN FAVOR OF THE OWNERS OF LOTS 82, 83, AND 84.

	T NO. 58-4	
LOT NO.	AREA (SQ.FT)	USE
322	10327	RESIDENTIAL
323	8567	RESIDENTIAL
324 325	6800 9204	RESIDENTIAL RESIDENTIAL
325	13445	RESIDENTIAL
327	6965	RESIDENTIAL
328	7983	RESIDENTIAL
329	7536	RESIDENTIAL
330	7745	RESIDENTIAL
331	7690 9658	RESIDENTIAL RESIDENTIAL
333	7218	RESIDENTIAL
334	6720	RESIDENTIAL
335	6680	RESIDENTIAL
336	6663	RESIDENTIAL
337	6441	RESIDENTIAL
338 339	5815 9614	RESIDENTIAL
340	13477	RESIDENTIAL RESIDENTIAL
341	7246	RESIDENTIAL
342	7423	RESIDENTIAL
343	6222	RESIDENTIAL
344	5924	RESIDENTIAL
345	10284	RESIDENTIAL
346 347	18780 9605	RESIDENTIAL RESIDENTIAL
348	6802	RESIDENTIAL
349	6889	RESIDENTIAL
350	6899	RESIDENTIAL
351	6857	RESIDENTIAL
352	6814	RESIDENTIAL
353 354	7549 6380	RESIDENTIAL RESIDENTIAL
355	6018	RESIDENTIAL
356	5926	RESIDENTIAL
357	5832	RESIDENTIAL
358	5954	RESIDENTIAL
359	5912	RESIDENTIAL
360	7180	RESIDENTIAL
361 362	7189 7282	RESIDENTIAL RESIDENTIAL
363	7371	RESIDENTIAL
364	7362	RESIDENTIAL
365	7550	RESIDENTIAL
366	6181	RESIDENTIAL
367 368	5061 5065	RESIDENTIAL RESIDENTIAL
369	5046	RESIDENTIAL
370	5053	RESIDENTIAL
371	5065	RESIDENTIAL
372	5468	RESIDENTIAL
373	6646	RESIDENTIAL
374 375	6374 6537	RESIDENTIAL RESIDENTIAL
376	6696	RESIDENTIAL
377	6853	RESIDENTIAL
378	7678	RESIDENTIAL
379	5430	RESIDENTIAL
380 381	5186 5259	RESIDENTIAL RESIDENTIAL
381	5259	RESIDENTIAL
383	5404	RESIDENTIAL
384	5518	RESIDENTIAL
385	6239	RESIDENTIAL
386	9890	RESIDENTIAL
387 388	7582 5611	RESIDENTIAL RESIDENTIAL
389	5928	RESIDENTIAL
390	5888	RESIDENTIAL
391	5473	RESIDENTIAL
392	6688	RESIDENTIAL
393	7716	RESIDENTIAL
394 395	13470 5630	RESIDENTIAL RESIDENTIAL
396	5646	RESIDENTIAL
397	5716	RESIDENTIAL
398	5856	RESIDENTIAL
399	5822	RESIDENTIAL
400	5790	RESIDENTIAL
401	5794 6993	RESIDENTIAL RESIDENTIAL
82 OS	27664	PARK
83 OS	140967	BASIN
84 OS	416240	PARK
85 OS	12385	
86 OS	3245	
87 OS	2343	
88 OS	2343 505	
89 OS		
90 OS	585	
	585 13730	
90 OS		





TR36658-5 EASEMENT NOTES

1 THE UNITED STATES OF AMERICA, HOLDER OF AN EASEMENT FOR DITCHES AND CANALS RESERVED IN ..._ S....LD SITTLES OF AMELINGA, FIOLDER OF AN EASEMENT FUR DITCHES AND CANALS RESERVED IN DOCUMENT RECORDED NOVEMBER 29, 1915 IN BOOK 7, PAGE 82 OF PATENTS, RIVERSIDE COUNTY RECORDS.

- SOUTHERN SIERRAS POWER COMPANY, HOLDER OF EASEMENT FOR PUBLIC UTILITY PURPOSES PER DOCUMENT RECORDED MAY 11, 1928 IN BOOK 765, PAGE 185 OF DEEDS, RIVERSIDE COUNTY RECORDS. TO
- BE ABANDONED 3 EASEMENT FOR DRAINAGE AND MAINTENANCE PER PARCEL MAP NO. 36657, PMB 245/70-87
- RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, HOLDER OF A STORM DRAIN EASEMENT PER DOC. NO. 2019-XXX.
- RIVERSIDE COUNTY COMMUNITY FACILITIES DISTRICT, HOLDER OF A STORM DRAIN EASEMENT PER DOC. NO. 2019-XXX.
- EASTERN MUNICIPAL WATER DISTRICT, HOLDER OF A SEWER EASEMENT PER DOCUMENT RECORDED SEPTEMBER 28, 2020 AS DOCUMENT NO. 2020—0460480 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY.
- /> EASTERN MUNICIPAL WATER DISTRICT, HOLDER OF A SEWER EASEMENT PER DOC. NO. 2019-XXX. 8 W.G. JENKINS, HOLDER OF EASEMENT FOR PIPELINES, DITCHES, FLUMES, AND WATER CONDUITS PER

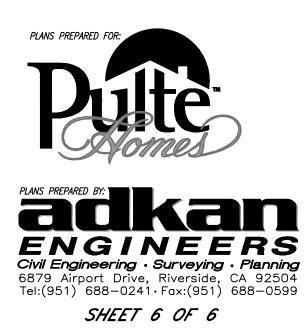
DOCUMENT RECORDED JANUARY 22, 1930 IN BOOK 836, PAGE 512 OF DEEDS. NOT PLOTTABLE FROM THE RECORD.

- 9 ROMOLA INCORPORATED, HOLDER OF AN EASEMENT FOR PIPELINES AND DITCHES RESERVED PER DOCUMENT RECORDED FEBRUARY 11, 1930 IN BOOK 839, PAGE 180 OF DEEDS. NOT PLOTTABLE FROM THE RECORD.

10	ROMOLA INCORPORATED, HOLDER OF AN EASEMENT FOR PIPELINES AND DITCHES RESERVED PER DOCUM
	RECORDED FEBRUARY 24, 1930 IN BOOK 841, PAGE 337 OF DEEDS.
	NOT PLOTTABLE FROM THE RECORD.
^	
11	EASEMENT FOR OFFSITE GRADING

TRACT NO.	36658-5
AREA (SQ.FT)	USE
5280	RESIDENTIAL
280 342	RESIDENTIAL
+2 04	RESIDENTIAL
61	RESIDENTIAL
+01 495	RESIDENTIAL
5282	RESIDENTIAL
5282 5005	RESIDENTIAL
5142 	RESIDENTIAL
5573	RESIDENTIAL
5283	RESIDENTIAL
5000	RESIDENTIAL
5000	RESIDENTIAL
5062	RESIDENTIAL
6208	RESIDENTIAL
5922	RESIDENTIAL
6435	RESIDENTIAL
5421	RESIDENTIAL
5610	RESIDENTIAL
5795	RESIDENTIAL
5982	RESIDENTIAL
6168	RESIDENTIAL
7143	RESIDENTIAL
7078	RESIDENTIAL
6528	RESIDENTIAL
7008	RESIDENTIAL
6285	RESIDENTIAL
6494	RESIDENTIAL
5470	RESIDENTIAL
6695	RESIDENTIAL
6506	RESIDENTIAL
5643	RESIDENTIAL
6304	RESIDENTIAL
5000	RESIDENTIAL
5000	RESIDENTIAL
8066	RESIDENTIAL
5109	RESIDENTIAL
5059 	RESIDENTIAL
5058	RESIDENTIAL
5303	RESIDENTIAL
7607	RESIDENTIAL
6676	RESIDENTIAL
6676	RESIDENTIAL
8035	RESIDENTIAL
6847	RESIDENTIAL
5188	RESIDENTIAL
5164	RESIDENTIAL
5147	RESIDENTIAL
5147	RESIDENTIAL
147	RESIDENTIAL
	RESIDENTIAL
5180	RESIDENTIAL
538	RESIDENTIAL
538 535	RESIDENTIAL RESIDENTIAL
38 35 75	RESIDENTIAL
38 35 75 56	RESIDENTIAL RESIDENTIAL
38 35 75 56	RESIDENTIAL RESIDENTIAL RESIDENTIAL
28 25 25 26 28 22	RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL
38 35 75 56 58 32	RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL
38 35 75 256 268 282	RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL
5180 5538 5535 5575 5256 5368 5482 5590 5566 6887 6837	RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL RESIDENTIAL

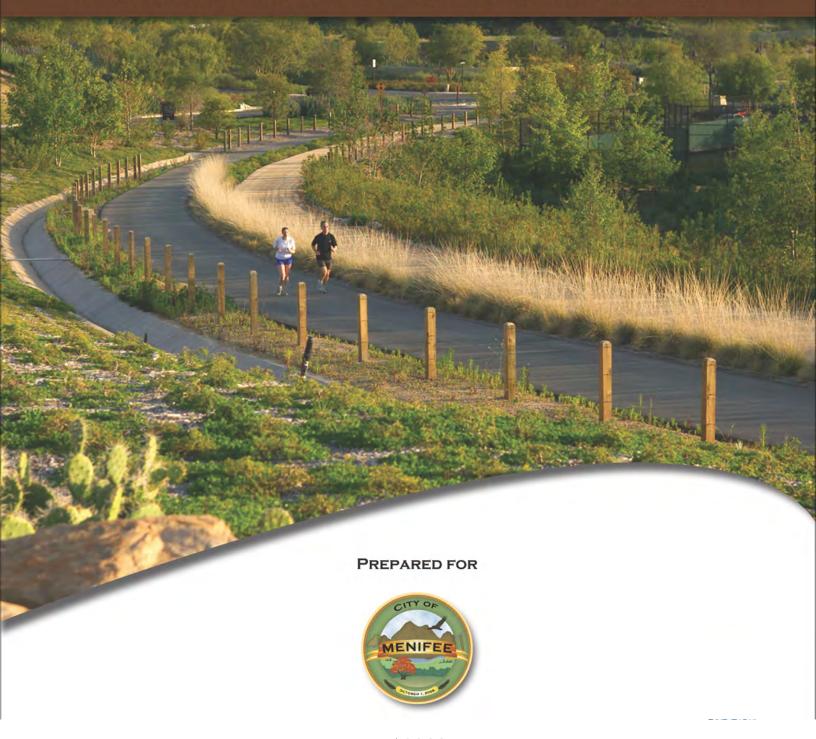
85 12275 RESIDENTIAL





A Park Community for all to enjoy!

CIMARRON RIDGE SPECIFIC PLAN



JUNE 2023

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1.0 INTRODUCTION



1.1 Introduction

Building upon traditions that were established during the City of Menifee's formative years, the Cimarron Ridge Specific Plan is a proposal for the development of a master-planned community that will contain a variety of innovative housing types and functional open spaces. Growth through master-planned communities is a trend that began with the development of Sun City in the early 1960s by Del Webb, followed by the development of the master-planned community of Menifee Lakes in 1989. Today, a total of 18 specific plans guide development in and around the city, mainly along Newport Road and areas east of Interstate 215 (I-215). Since the newly incorporated City of Menifee comprises Sun City, Quail Valley, and portions of Romoland, the inherent land uses and community characteristics of these neighborhoods are now part of the fabric of the city.

The Cimarron Ridge Specific Plan is a comprehensive plan for the development of a new community that will be composed of traditional residential neighborhoods combined with parks, functional open space areas, a multipurpose trail system, and road improvements. A variety of housing styles are proposed to provide a range of opportunities to residents with diverse lifestyle and economic circumstances; the variety of residential product types is intended to appeal to potential homebuyers with the emphasis on active, growing families, including first-time homebuyers and move-up buyers. Residential densities within Cimarron Ridge range from 2.7 to 3.9 dwelling units per acre (du/ac), which is consistent with the underlying General Plan land use designation of Medium Density Residential (MDR: 2.1-5 du/ac).

The Cimarron Ridge Specific Plan is designed with an unmitigated commitment to bring to life a master-planned community that will offer a distinctively superior level of living to its residents. The commitment is to create a "sense of place" that will welcome a wide variety of the city's population while ideally serving their most sought-after lifestyle needs.

This commitment will be realized through the creation of a remarkable approximate 10.9-gross acre park, which is conceptually planned to boast a baseball field, two soccer fields, open spaces, a picnic pavilion, dog park, off-street parking, and children's play areas. Meandering walking trails throughout the Specific Plan area will connect neighborhoods, undoubtedly bringing families together and establishing new friendships. Neighborhood streets are uniquely U-shaped, naturally keeping traffic speeds at a minimum and eliminating cut-through traffic, thus making Cimarron Ridge a haven of safe streets on which kids can play. Thanks to a lushly landscaped Promenade street, residents will return home each day knowing they live in a truly special place.

A segmentation of home sites with 5,000-, 5,500-, 6,500-, and 10,000-square-foot lots will create neighborhoods that appeal to a wide population. Though these neighborhoods may be distinctly different in home size, they will be embraced as one within the master plan.

Thanks to the seamless connection of these multiple, sought-after characteristics, Cimarron Ridge will grow to symbolize the term "sense of place" in a most admirable way.



The Cimarron Ridge Specific Plan amendment proposes to make changes to the previously established Planning Area 4, Planning Area 5, and Planning Area 6. The Project proposes transferring 49 dwelling units from Planning Area 4 to Planning Area 5 and transferring the 10-acre park from Planning Area 5 to Planning Area 4, which does not result in any density changes. These changes to the Planning Areas will resulting in the following:

- Planning Area 4 will consist of 81 dwelling units and include a 10.9-gross acre park, consisting of active and passive uses for the community with on-site parking (Cimarron Ridge Proposed Specific Plan Amendment exhibit, pg. 4).
- Planning Area 5 will consist of 151 dwelling units, a 1.5-acre recreation area, pickleball courts, gated with Planning Area 6, age-qualified community (Cimarron Ridge Planning Area 5 and Planning Area 6 proposed conceptual grading and gated entries exhibit, pg. 6).

The Cimarron Ridge Specific Plan was approved by the City of Menifee City Council in July 2015.

1.2 Purpose of the Specific Plan

The Cimarron Ridge Specific Plan is a comprehensive document that will guide the future development of the proposed community. The document sets forth a comprehensive set of plans, development standards, design guidelines, and implementation programs that have been designed to produce a Project that is consistent with the goals, objectives, and policies of the General Plan.

A specific plan is defined by Government Code Section 65450 et seq. as a tool for the systematic implementation of the General Plan for all or part of the area covered by the General Plan. It effectively establishes a link between implementing policies of the General Plan and the individual development proposals in a defined area. To an extent, the range of issues contained in a specific plan is left to the discretion of the decision-making body.

However, all specific plans must comply with Sections 65450 - 65457 of the Government Code. These provisions require that a specific plan be consistent with the adopted general plan of the jurisdiction within which it is located. In turn, all subsequent subdivision and parcel maps, all development, all public works projects, and zoning ordinances within an area covered by a specific plan must be consistent with the specific plan.

The purpose of the Cimarron Ridge Specific Plan Amendment is to amend the Cimarron Ridge Specific Plan, dated 2015, to relocate the approximate 10.9-gross acre multipurpose park within Planning Area 4 and to create a gated, age-specific neighborhood within Planning Area 5 and Planning Area 6.



1.3 **Authority and Scope**

The Cimarron Ridge Specific Plan is established through the authority granted to the City of Menifee by the California Government Code, Title 7, Division 1, Chapter 3, Sections 65450 through 65457 which sets forth the minimum requirements and review procedures for specific plans as follows:

"A specific plan shall include a text and diagram or diagrams which specify all of the following in detail:

- The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
- The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area and needed to support the land uses described in the plan.
- Standards and criteria by which improvements will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

The specific plan shall include a statement of the relationship of the specific plan to the general plan."

In addition, the specific plan may address other subjects that, in the judgment of the planning agency, are necessary or desirable for implementation of the general plan. State law permits a specific plan to be prepared, adopted, or amended in the same manner as a general plan, except that a specific plan may be adopted by resolution or by ordinance, and may be amended as often as is deemed necessary by the legislative body and must be consistent with a city's general plan. A Planning Commission hearing and City Council hearing are required, and specific plans must be adopted by the City Council.

It is the intent of the city to adopt the Cimarron Ridge Specific Plan by ordinance as a regulatory zoning document.

Specific Plan Organization

The Cimarron Ridge Specific Plan has been prepared in a collaborative effort by a multidisciplinary design team, and is organized as follows:

Chapter 1: Introduction. Establishes the purpose, intent, authority and scope of the Specific Plan.



Chapter 2: Planning Context and Existing Conditions. Provides planning context and existing site conditions.

Chapter 3: Community Development Plan. Establishes the vision for the Specific Plan, implementing strategies, and general and residential development standards applicable to the proposed land uses. It begins with the land use plan and subsequently describes major development components (i.e., circulation plan, drainage plan, water and sewer plan, grading plan, and phasing plan).

Chapter 4: Development Standards. Establishes the general and residential development standards that apply specifically to individual Planning Areas.

Chapter 5: Design Guidelines. Establishes landscape design and architectural design guidelines for the community.

Chapter 6: Administration and Implementation. Describes administration procedures for implementation of the Cimarron Ridge Specific Plan, including financing mechanisms and maintenance procedures.

2.0 PLANNING CONTEXT AND EXISTING CONDITIONS



2.1 Planning Context

The City of Menifee is one of California's newest incorporated communities, having incorporated in October 2008. The city is centrally located in southwestern Riverside County approximately 30 miles southeast of the City of Riverside. The city encompasses approximately 50 square miles with an overall population of 77,519 persons (as of the 2010 Census). As shown in **Figure 2.0-1**, **Regional Location Map**, the city is bordered to the north by the City of Perris, to the south by the City of Murrieta, to the west by the Cities of Canyon Lake and Lake Elsinore, and to the east by unincorporated County territory.

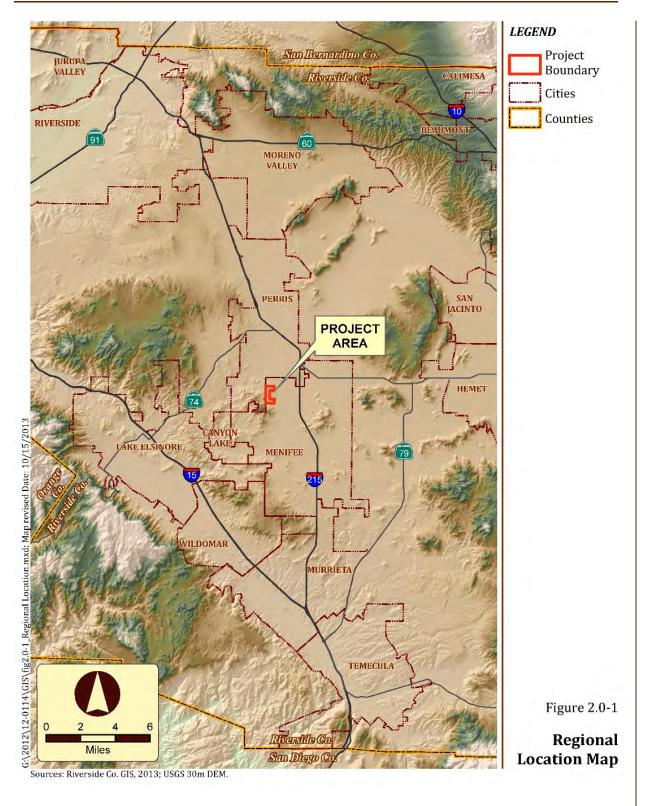
The City of Menifee offers a variety of distinctive living environments defined by topography, history, and rural-suburban settings. Early development of the City of Menifee began with Sun City in the early 1960s as a master-planned retirement community that was envisioned by Del Webb. The Menifee area began to grow further in 1989 with the development of the master-planned community of Menifee Lakes and continues to be one of the fastest-growing communities in California. Quail Valley is a semi-rural residential community in the northwestern portion of the city, and Romoland is a residential and commercial community located in the northeastern section of the city. Bell Mountain and other areas south of Garbani Road offer residents a more rural setting. Paloma Valley encompasses master-planned communities in Menifee.

Until 2009, Menifee was a census-designated place in the County of Riverside. On June 3, 2008, the residents of the communities encompassing the City of Menifee voted to incorporate Menifee into becoming Riverside County's twenty-sixth city. The new City of Menifee was officially established on October 1, 2008.

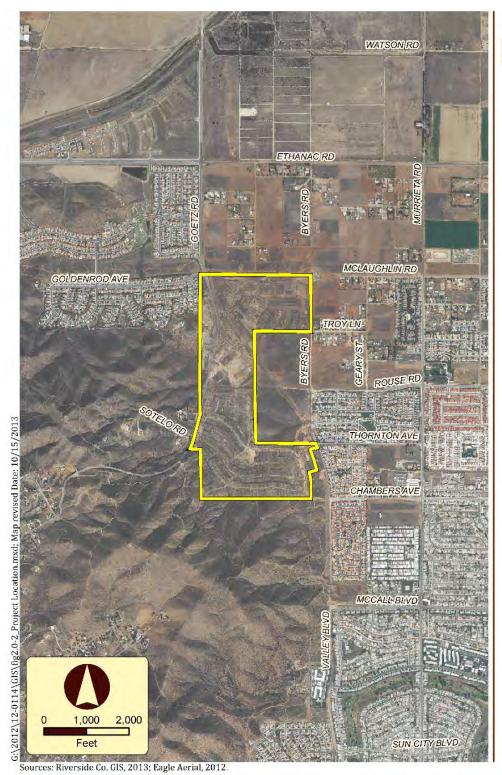
2.2 Project Location

As illustrated in **Figure 2.0-2, Project Location Map**, Cimarron Ridge is located in the northwest portion of the city approximately 2 miles west of I-215, which provides local and regional access to the Project area. The site is located south of McLaughlin Road, north of Chambers Avenue, east of Goetz Road, and west of Byers Road and Valley Boulevard.









LEGEND

Project Boundary

Figure 2.0-2

Project Location Map



2.3 Project Background

2.3.1 Tentative Tract Maps

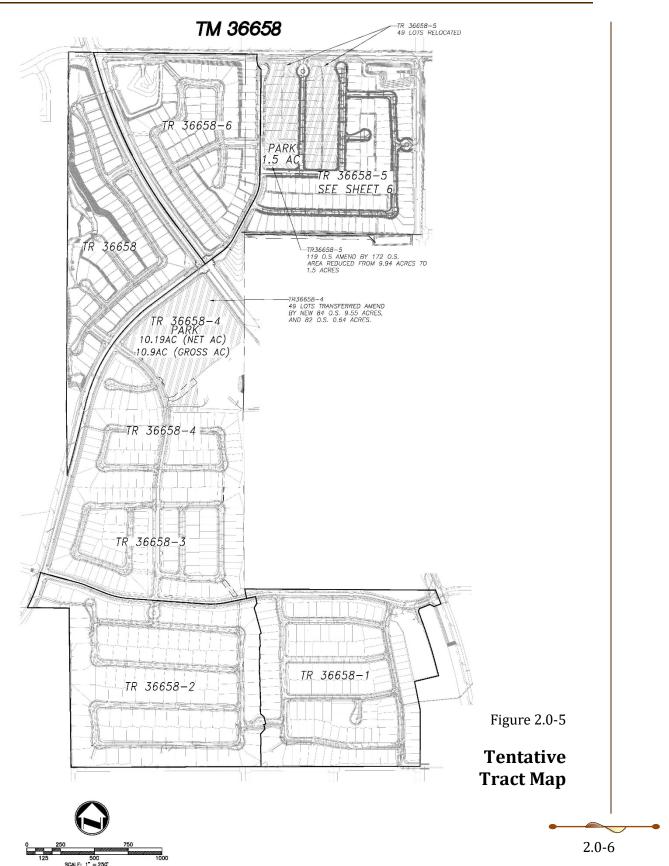
The Cimarron Ridge Specific Plan Project site was originally approved and graded for development under three separate tentative tract maps (TTMs); TTM No. 25316, approved April 28, 1992; TTM No. 25745, approved December 14, 1993; and TTM No. 30552, approved May 4, 2004. The three TTMs were formally approved for 835 lots by the County of Riverside with accompanying conditions of approval. However, each TTM and its respective conditions of approval have expired. A new TTM (TTM 36658) was approved for 756 residential lots. The TTM is being recorded into Seven Final Maps as seen in **Figure 2.0-3**.

The overall land use concept proposed for Cimarron Ridge is described in greater detail in *Chapter 3.1, Land Use Plan*.











2.4 Existing Conditions

In 2007, preliminary construction activities took place on the existing Project site. As can be seen in **Figure 2.0-2**, **Project Location Map**, the site was graded and some of the building pads and street sections can be seen in the aerial image. All of the previous entitlements and construction activities were performed under the direction of the previous applicant/owner.

The previous owner proposed the Cimarron Ridge Specific Plan in order to establish a new land use plan composed of traditional residential neighborhoods with parks, functional open spaces, trails, and road improvements that meet or exceed new City, County and state requirements within a specific plan framework.

Under TTM 36658 and associated grading and improvement plans, construction activities continue. Previously, the Project site was characterized as a mass graded site containing elevated home pads, graded roads, and detention basins. As shown in the photographs below, the site was previously covered in non-native grasses and weeds.



Photo 2.1. View of a graded basin located in northeastern portion of site

Source: Ecological Sciences, October 2012



Photo 2.2. View of graded roads and raised building pads in the southern portion of the site



Source: Ecological Sciences, October 2012

Photo 2.3. View looking north across the center of the site



Source: Ecological Sciences, October 2012

2.5 Existing General Plan Land Uses and Zoning

On December 20, 2013, the City of Menifee City Council approved the City's General Plan and supporting environmental impact report (EIR). Adoption of the General Plan freed the city from operating under the Riverside County Integrated Project, which was the General Plan in place before the city incorporated in 2008. The General Plan land use designation of the site is 2.1-5 dwelling units per acre (du/ac) Residential (2.1-5R), as shown in **Figure 2.0-4**, **Existing General Plan Land Use Designation**. As discussed in greater detail in *Chapter 3.1*, *Land Use Plan*, the



proposed Land Use Plan for Cimarron Ridge is consistent with the underlying General Plan land use designation.

The city has adopted the Riverside County Zoning Map until the City updates the zoning to reflect the recently adopted General Plan. As shown in **Figure 2.0-5**, **Existing Zoning Designation**, the existing zoning of the site is predominantly Low Density Residential-2 (LDR-2).

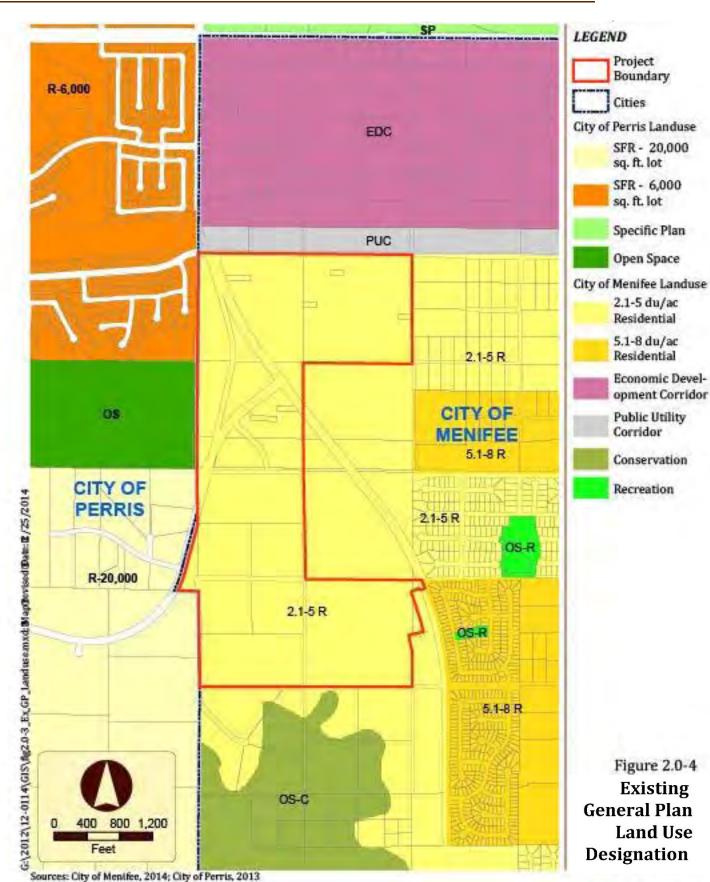
2.6 Surrounding Land Uses

As shown in **Figure 2.0-6, Surrounding Land Uses,** the site is bordered by vacant land and rural residential areas to the north. Single-family residential subdivisions are located to the northwest of the site. South of these single-family homes, along the western border of the site, land uses consist of vacant land followed by rural residential homes and ranch-style properties along Sotelo Road. To the south of the Project site is vacant land. Single-family residential subdivisions are located immediately adjacent to the southeast of the site and are followed by rural residential to the northeast of the Project site.

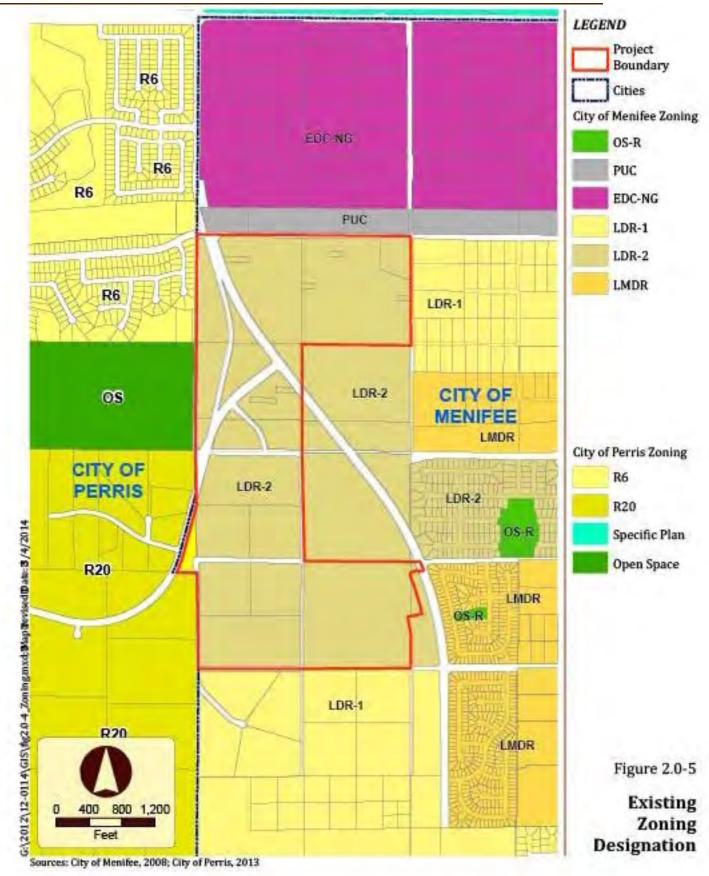
2.7 Circulation and Site Accessibility

Existing roads located near the site include Ethanac Road to the north, which ultimately connects to I-215. Other existing roads currently serving the site include Goetz Road, which traverses the western portion of the site. Valley Boulevard is located to the southeast of the site and terminates near Thornton Avenue. Chambers Avenue and Thornton Avenue are located to the east of the site and terminate at Valley Boulevard. Rouse Road is also located east of the site and terminates near Byers Road. Troy Lane and Byers Road are located to the east of the site and are currently unpaved dirt roads. McLaughlin Road, to the north, is also an unpaved dirt road. Planned circulation for the Project is discussed in greater detail in Chapter 3.2, Circulation Plan.













LEGEND

Project Boundary

Cities

Figure 2.0-6

Surrounding Land Uses

3.0 COMMUNITY DEVELOPMENT PLAN



3.0.1 Project Wide Planning Standards

This chapter presents plans and standards that will govern the major aspects of the future development of Cimarron Ridge. It begins with the land use plan, and subsequently describes major development components (i.e., circulation, water, sewer, drainage grading, and Project phasing). Planning standards that apply specifically to individual Planning Areas will be discussed in *Chapter 4.0, Development Standards. Chapter 5.0, Design Guidelines* discusses architectural and landscape design guidelines that will govern the design character of the community.

3.0.2 Planning Approach

Many important issues were thoroughly examined and considered during the preparation of this Specific Plan, including engineering feasibility, market conditions, economic viability, consistency with the General Plan, and local community goals. In addition, creative approaches in the utilization of land to accomplish a more efficient, aesthetic, and desirable development were also considered. As a result of that process, specific goals and objectives for the Cimarron Ridge Specific Plan were established.

The vision for Cimarron Ridge is to bring to life a master-planned community that will offer a distinctively superior level of living to its residents by offering a diversity of housing opportunities within walking distance to parks, permanent open space, and pedestrian-friendly trails. The commitment is to create a "sense of place" that will welcome a wide variety of the City's population while ideally serving their most sought-after lifestyle needs. This commitment will be realized through the creation of a remarkable 10.9-gross acre multipurpose park, which is conceptually planned to boast a baseball field, two soccer fields, open spaces, dog park, off-street parking, a picnic pavilion, and children's play areas and inclusive playground equipment. Meandering walking trails throughout the Specific Plan area will connect neighborhoods, undoubtedly bringing families together and establishing new friendships. Neighborhood streets are uniquely U-shaped, comfortably keeping traffic speeds at a minimum and eliminating cutthrough traffic, thus making Cimarron Ridge a haven of safe streets on which kids can play. Thanks to a lushly landscaped Promenade street, residents will return home each day knowing they live in a truly special place.

The vision for Cimarron Ridge will be achieved through application of the following objectives:

- **Quality of Life** Design Cimarron Ridge with an array of recreational amenities such as active and passive parks and pedestrian-friendly trails to ensure a high quality of life for residents and visitors.
- **Balance** Design Cimarron Ridge to provide a balanced mix of residential product types at appropriate densities with active and passive recreational opportunities that will complement the surrounding neighborhoods and create a viable community.



- **Community Design** -Establish a strong community identity through the integration of design and architectural standards in the Specific Plan that will contain a rich pattern of landscaping, streetscaping, signage, and architecture to create attractive, walkable, and distinctive neighborhoods with a strong sense of place.
- **Recreation** Provide areas for active and passive recreation that will be accessible by an integrated trail and sidewalk system.
- *Housing Opportunities* Provide a mix of housing types that can accommodate a broad range of the market spectrum, including first-time homebuyers, move-up buyers, growing families, young professionals, and active adults and seniors.
- **Diversity** Establish development standards that will ensure a diversity of housing types with a variety of floor plans to meet the varying needs of multigenerational families.

3.1 LAND USE PLAN



3.4.1 Introduction

The approximately 240-acre Cimarron Ridge Specific Plan features a traditional neighborhood lifestyle with various housing types that are within easy walking distance to recreational amenities. Pedestrian connectivity is provided through a system of pedestrian trails, sidewalks, and bicycle lanes that link residential neighborhoods to one another, to parks, and to other recreational amenities. A major component of Cimarron Ridge will be an approximately 10.9-gross acre multipurpose neighborhood park that is planned for a wide range of activities including soccer, baseball and other field sports, dog park, picnic areas, inclusive playground equipment, and tot lots as well as informal open space and recreational areas.

3.4.2 Community Design/Implementing the Vision

Cimarron Ridge is designed with walkable neighborhoods that are supported by active and passive recreational opportunities. Each neighborhood is connected by a network of trails and pathways that encourage walking and biking throughout the community.

The design for Cimarron Ridge as a walkable community is physically realized in its Land Use Plan, which implements traditional neighborhood design techniques at both the community and neighborhood levels. Within the community, residents will be able to use an integrated system of pedestrian trails, sidewalks, and bike lanes to access parks and recreational amenities. Streets within Cimarron Ridge are planned to function as a "promenade" and will feature lush community-based landscaping, helping define the sense of arrival in Cimarron Ridge. Meandering sidewalks and trails throughout the community will connect neighborhoods, undoubtedly bringing families together and establishing new friendships. Cimarron Ridge is envisioned as a place where residents can visit with neighbors while walking along shaded pathways and trails throughout the community.

As shown in **Figure 3.1-1, Conceptual Development Plan,** Cimarron Ridge is designed with smaller Planning Areas which in turn produce smaller neighborhood units. The purpose of the smaller neighborhoods is to reinforce social interaction among residents and to facilitate aesthetic differentiations between neighborhoods. In terms of spatial planning, the neighborhood Planning Areas are approximately 0.25 miles in length, allowing for shorter local streets. The advantages of shorter neighborhood streets include slower-moving vehicles, greater safety for children playing in front yards, and stronger interaction between neighbors.

The Land Use Plan for Cimarron Ridge is also designed with a local street network best described as "U-shaped loop streets" within each neighborhood. This road pattern ensures that very little through-traffic will traverse local streets, thereby allowing streets to function like cul-de-sacs but with more neighborhood connectivity. By keeping the streets U-shaped and shorter in length, Cimarron Ridge alleviates high speed vehicle travel and pass-through drivers.



The Land Use Plan is further designed with a collection of individual Planning Areas. Each Planning Area will offer unique characteristics, but will be integrated into the broader, cohesive community. Collectively, the various Planning Areas are interconnected through complementary architectural and landscape themes, a network of community trails, and common recreational amenities strategically positioned throughout the community.

3.4.3 Proposed Land Uses

The Land Use Plan as shown in **Figure 3.1-2, Land Use Plan** depicts the overall land use pattern within Cimarron Ridge. **Table 3.0-A, Land Use Summary** provides a summary of the proposed land uses. Specific information for each individual Planning Area is provided in **Table 3.0-B, Detailed Land Use Summary.**

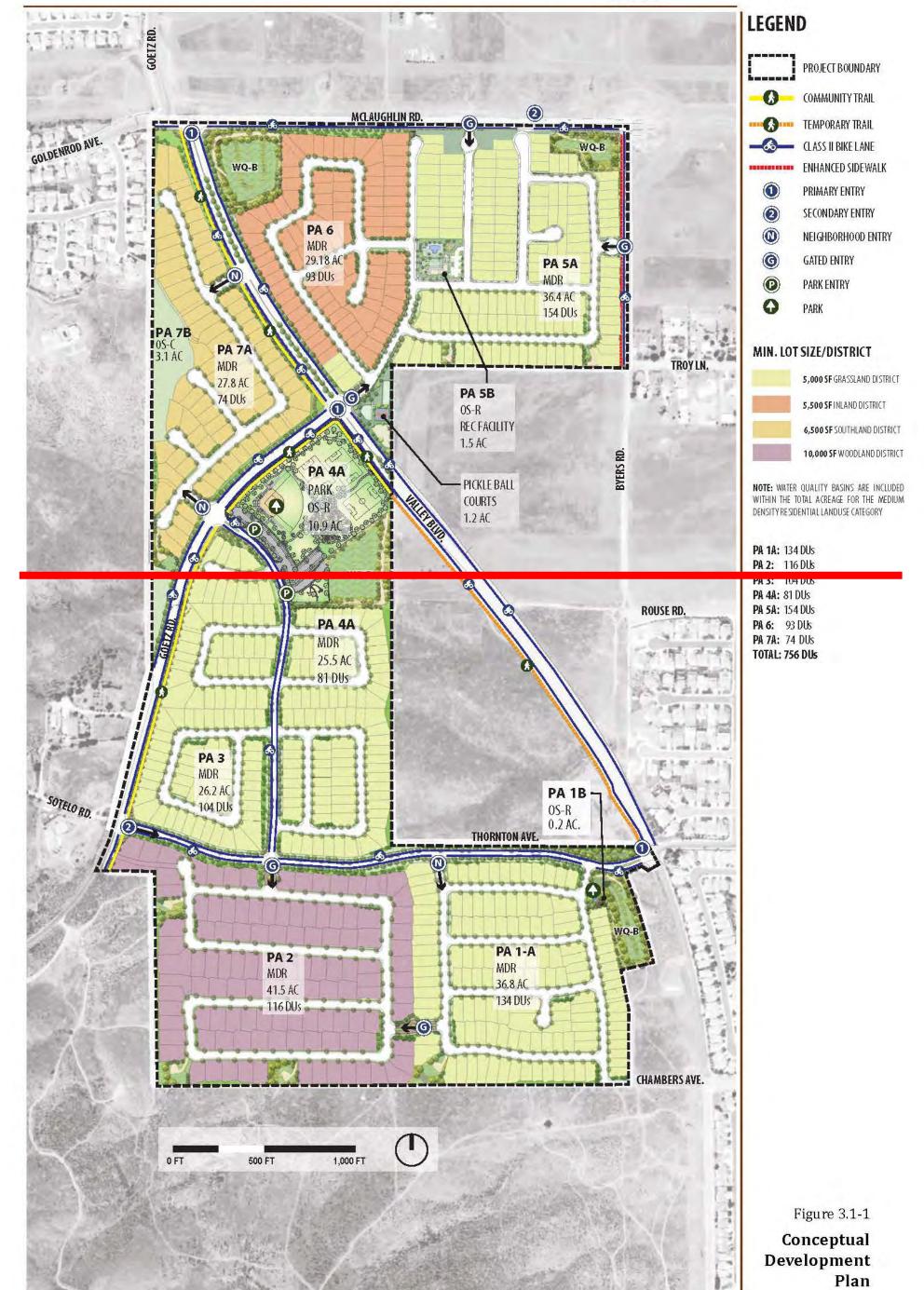
Table 3.0-A, Land Use Summary

Land Use Designation	Gross Area (Acres)	Density Range (du/ac)	Target Density	Proposed Dwelling Units	% of Total Acres
Medium Density Residential (MDR) ¹	223.4	2.0-5.0	3.3	756	93.3%
Open Space Conservation (OS-C)	3.1				1.3%
Open Space Recreation (OS- R)	13.8				5.7%
Total	240*	2.0-5.0	3.3	756	100%

¹. As shown in Figure 3.1-1, Conceptual Development Plan, there are four water quality basins included within the total acreage for the Medium Density Residential land use category. The total size of the three basins is 11.5 acres.

^{*} Values have been rounded to the nearest whole number.



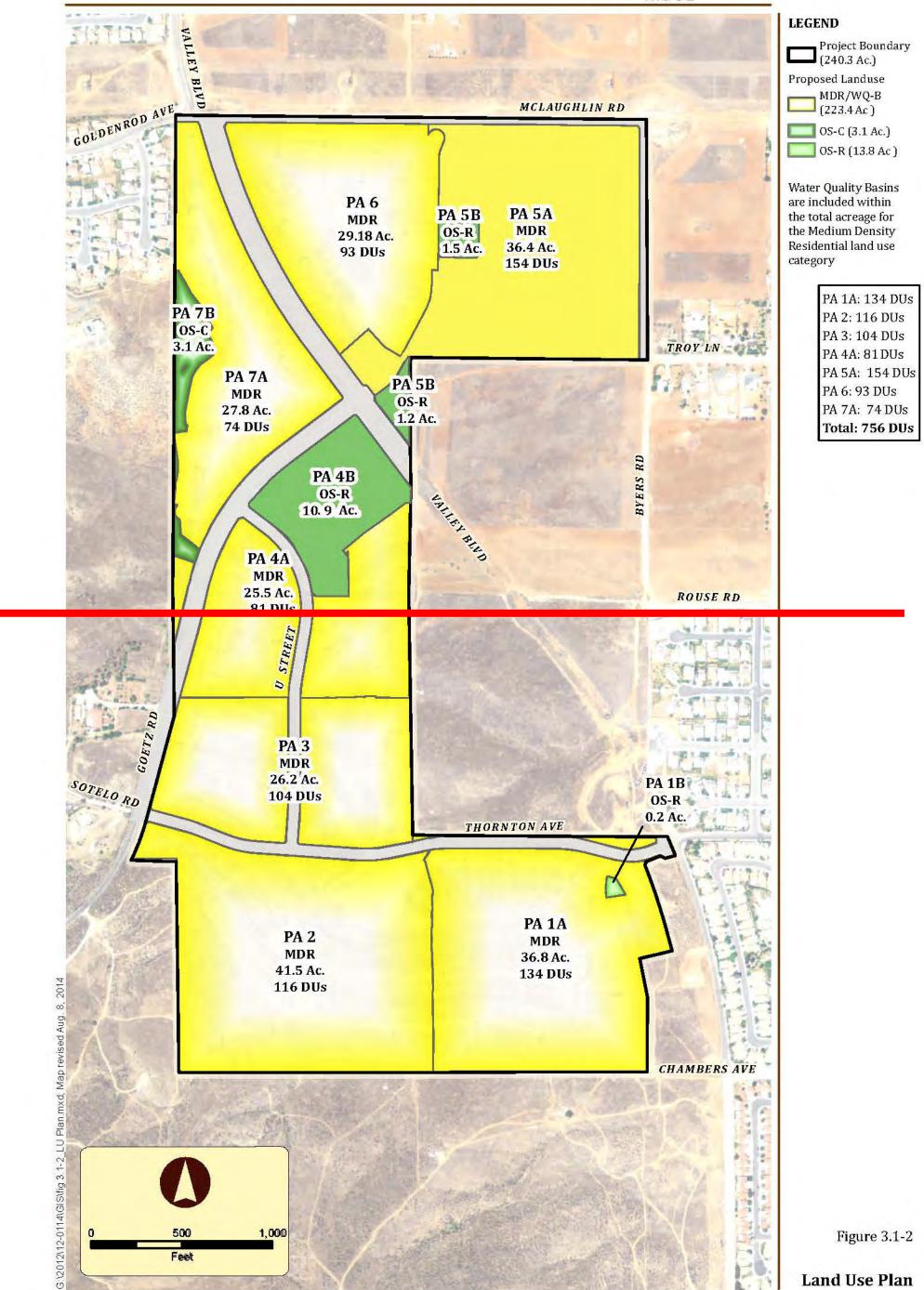






Conceptual Development Plan





Sources: Hunsaker and Assoc., May 2014; County of Riverside, 2014; NAIP, April 2011.



Project Boundary

PA 1A: 134 DUs

PA 2: 116 DUs

PA 3: 104 DUs

PA 4A: 81 DUs PA 5A: 151 DUs

PA 6: 96 DUs

PA 7A: 74 DUs

Total: 756 DUs

MDR/WQ-B

(223.4 Ac) OS-C (3.1 Ac.) OS-R (13.8 Ac)

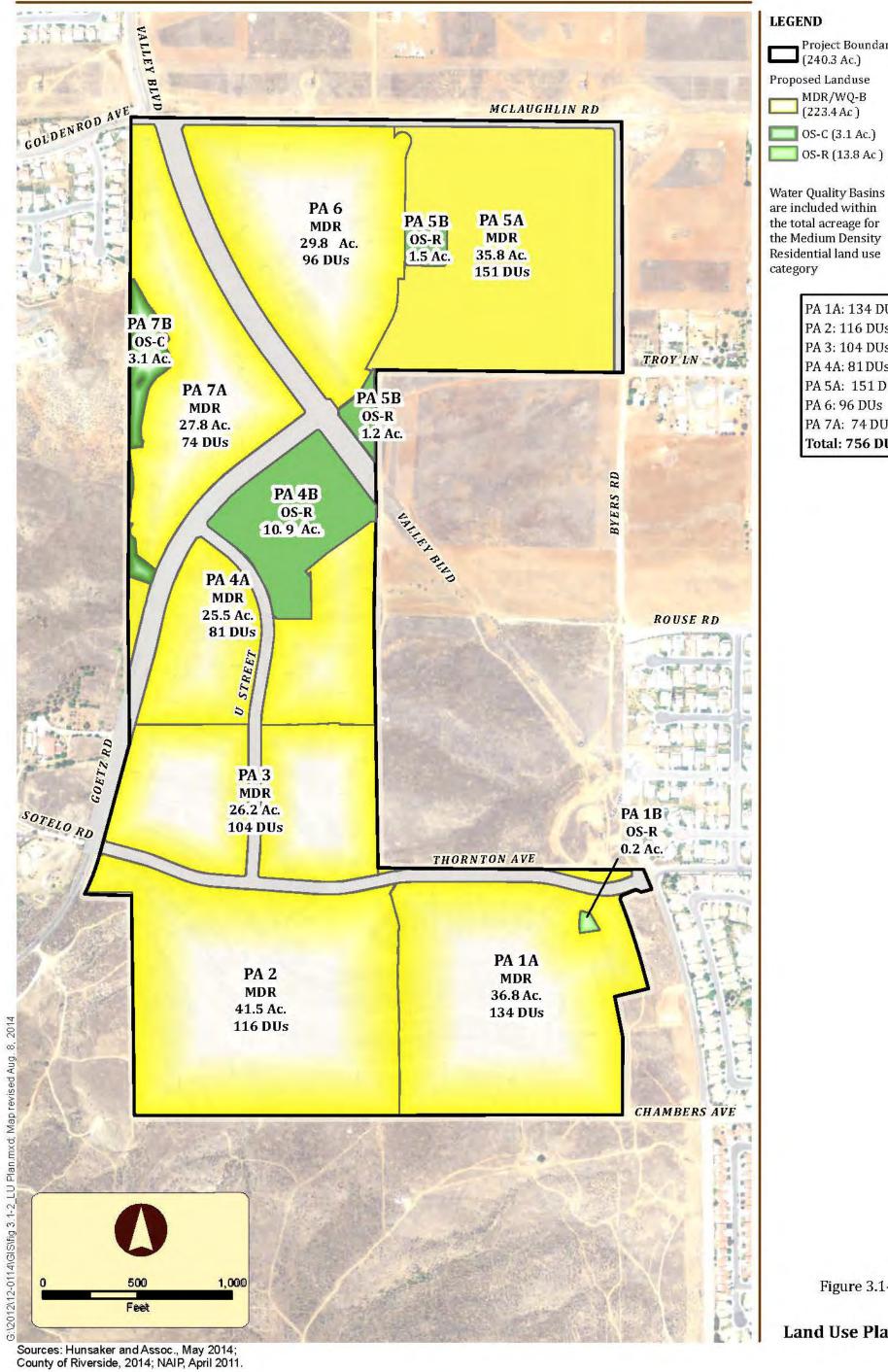


Figure 3.1-2



Table 3.0-B, Detailed Land Use Summary

Planning Area	Land Use Designation	Lot Type	Density Range	Target Density (Gross Acres)	Gross Area	Proposed Dwelling Units
1a	Medium Density Residential (MDR)	5,000 Sq. Ft.	2.0-5.0	3.6	36.8	134
1b	Open Space Recreation (OS-R)	-	-	-	0.2	-
2	Medium Density Residential (MDR)	10,000 Sq. Ft	2.0-5.0	2.8	41.5	116
3	Medium Density Residential (MDR)	5,000 Sq. Ft	2.0-5.0	3.9	26.2	104
4a	Medium Density Residential (MDR)	5,000 Sq. Ft	2.0-5.0	3.0	25.5	81
4b Multiuse Park (Includes 0.64-Acre Dog Park)	Open Space Recreation (OS-R)	-	-	-	10.9	-
5a	Medium Density Residential (MDR)	5,000 Sq. Ft	2.0-5.0	4.2	35.8	151
5b	Open Space Recreation (OS-R)	-	-	-	2.7	-
6	Medium Density Residential (MDR)	5,500 Sq. Ft	2.0-5.0	3.2	29.8	96
7a	Medium Density Residential (MDR)	6,500 Sq. Ft	2.0-5.0	2.7	27.8	74
7b	Open Space Conservation (OS-C)	-	-	-	3.1	-
Total	-	-	-	3.1 (Average)	240*	756

^{*} Values have been rounded to the nearest whole number.



3.4.4 Residential Land Uses

Residential Planning Areas account for 92.9 percent of the total land uses for Cimarron Ridge. These neighborhoods are discussed in greater detail in *Chapter 4.0, Development Standards*. The different residential land uses, densities, and lot sizes contained within the Cimarron Ridge community are described below.

Medium Density Residential, MDR (2-5 du/ac)

A total of 756 homes are planned on 223.4 acres of land at an average density of 3.1 du/ac. Medium Density Residential (MDR) land uses are proposed for Planning Areas 1A, 2, 3, 4A, 5A, 6 and 7A.¹ The MDR land use classification includes conventional single-family detached homes on minimum lot sizes varying between 5,000, 5,500, 6,500 and 10,000 square feet. Garages are generally front loaded and, where possible, are varied from the front yard setback of the living space to provide visual interest along the street scene. Varying front yard setbacks within the same structure allow architectural features to be closer to the street to create a varied street scene. Private yard space is concentrated on the side and rear of the home.

It is important to distinguish that **Figure 3.1-2, Land Use Plan** contains the "proposed" land use concept for the overall Specific Plan. After the Specific Plan is adopted by the City Council, the General Plan land use designations for the site will match the Land Use Plan as shown in **Figure 3.1-2**.

Figure 3.1-1, Conceptual Development Plan reflects the potential buildout of Cimarron Ridge. The Conceptual Development Plan differs from the Land Use Plan in that it distinguishes individual Planning Areas by four minimum lot sizes, proposed as follows:

- 5,000 square feet (Planning Areas 1A, 3, 4A and 5A) referred to as the Grassland District
- 5,500 square feet (Planning Area 6) referred to as the Inland District
- 6,500 square feet (Planning Area 7A) referred to as the Southland District
- 10,000 square feet (Planning Area 2) referred to as the Woodland District

The district names correspond with the landscape districts that are discussed in greater detail in *Chapter 5.1, Landscape Design Guidelines*. In general, the landscape districts were selected to distinguish the individual Planning Areas from one another by accenting the landscape through tree variations commonly seen in inland, grassland, southland, and woodland planting communities of California.

It is important to mention that while the Conceptual Development Plan depicts minimum lot sizes varying between 5,000, 5,500, 6,500 and 10,000 square feet, the "average" lot size within each district is actually much larger. As conceptually lotted in **Figure 3.1-1**, the average lot size for the

¹ Total includes Medium Density Residential (MDR) land use only.



Grassland District would be 7,062 square feet, the average lot size for the Inland District would be 7,867 square feet, and the average lot size for the Southland District would be 9,118 square feet. Therefore, even though the Conceptual Development Plan is illustrative in nature, and the final placement of lots will be determined during the TTM process, preliminary lotting studies indicate that average lot sizes will be much larger than the minimum lot size standards.

The Conceptual Development Plan was included to illustrate land use combinations that will be implemented under the provisions of this Specific Plan. As such, the Conceptual Development Plan is illustrative in nature and the final alignments of streets and the placement of lots will be determined during the TTM process. However, with regard to individual Planning Areas, *Chapter 4.0, Development Standards* contains specific development standards and zoning criteria that would apply to each individual Planning Area based on the minimum lot sizes shown in **Figure 3.1-1**.

Therefore, while the underlying land use classification for each Planning Area will be MDR, Chapter 4.0, Development Standards contains specific zoning standards for each Planning Area that will implement the Conceptual Development Plan as shown in **Figure 3.1-1.** This will ensure that the planning objectives of the Specific Plan can be met while also ensuring that the overall Land Use Plan will contain a variety of residential product types with varying lot configurations.

3.4.5 Open Space and Recreational Land Uses

An important element of Cimarron Ridge is the provision of recreation and open spaces to enhance the quality of living for residents of the community. As illustrated in **Figure 3.1-2, Land Use Plan,** Cimarron Ridge includes a network of parks, pocket parks, natural open space areas, and water quality basins. Individual components of the open space system are discussed and graphically depicted on the following pages. Concept plans of the open space and recreation areas are provided to present initial designs that could be included in future design proposals.

Open Space Recreation

As shown in **Figure 3.1-2, Land Use Plan,** a major component of the Cimarron Ridge Specific Plan will be the placement of four parks and one natural open space area totaling 16.9 acres that are strategically and evenly distributed throughout the site. The placement of each park was chosen to maximize its accessibility. As conceptually shown in **Figure 3.1-1**, every home would be located



within one-half mile of a park. This will ensure that all future residents will be within a



comfortable walking distance to a park (assuming a walking ability of 3 miles per hour, it would take approximately 10 minutes to walk one-half mile).



The central section of the site features an approximately 10.9-gross acre multipurpose park planned in Planning Area 4A.. In Planning Area 5A there will be a 1.5-acre recreation center and 1.2-acre pickleball area. in **Figure** As shown 3.1-3, Conceptual Park Layout, careful thought and consideration has been given to the initial design concepts of the multipurpose park to include a range of activities such as soccer, baseball and sport fields, walking trails, dining areas, a dog park,

inclusive playground equipment, tot lots as well as informal open space areas and recreational areas. A meandering sidewalk is also planned to connect various areas of the park. The primary park will be further enhanced through the integration of various landscape and hardscape elements to create a highly sought-after recreational facility. With that in mind, the multipurpose park has been designed to meet the needs of the entire region, as well as the future residents and visitors of Cimarron Ridge. The park will be accessible from Goetz Road and will be open to all community members, as well as the general public.

A 1.2-acre pickleball facility is located in Planning Area 5B. This facility will be private. The surrounding court area will be landscaped with trees and turf and walkways throughout. South of the courts is a small area for social gatherings and a dog park for residents. The courts and surrounding area will be fenced. On-street parking will be utilized. See **Figure 3.1-4**.

A 1.5-acre recreation center is located in Planning Area 5B. The private recreation center will be used by residents of Planning Areas 5B and 6. The recreation center will include on-site parking, lap pool with seating niche, restrooms, meeting room, turf event area, outdoor dining area, BBQ, and produce garden. See **Figure 3.1-5**.

One pocket park located in Planning Area 1B contains a private, 0.2-acre recreation area. This park is





strategically located to serve Planning Areas 1A and 2. As shown in **Figure 3.1-6**, anticipated recreational components for the pocket park include shade trees, play areas, walkways, picnic areas, and rolling turf areas In concert with the surrounding homes, each park will have its own unique design, character, and amenities, and will serve to create intimate spaces within the various neighborhoods.





Figure 3.1-3

Conceptual Park Layout 10.9 Acre Park





Figure 3.1-3

Conceptual

Park Layout

10.9 Acre Park





Scale: 1"=10"

SCALE: 1" = 10'



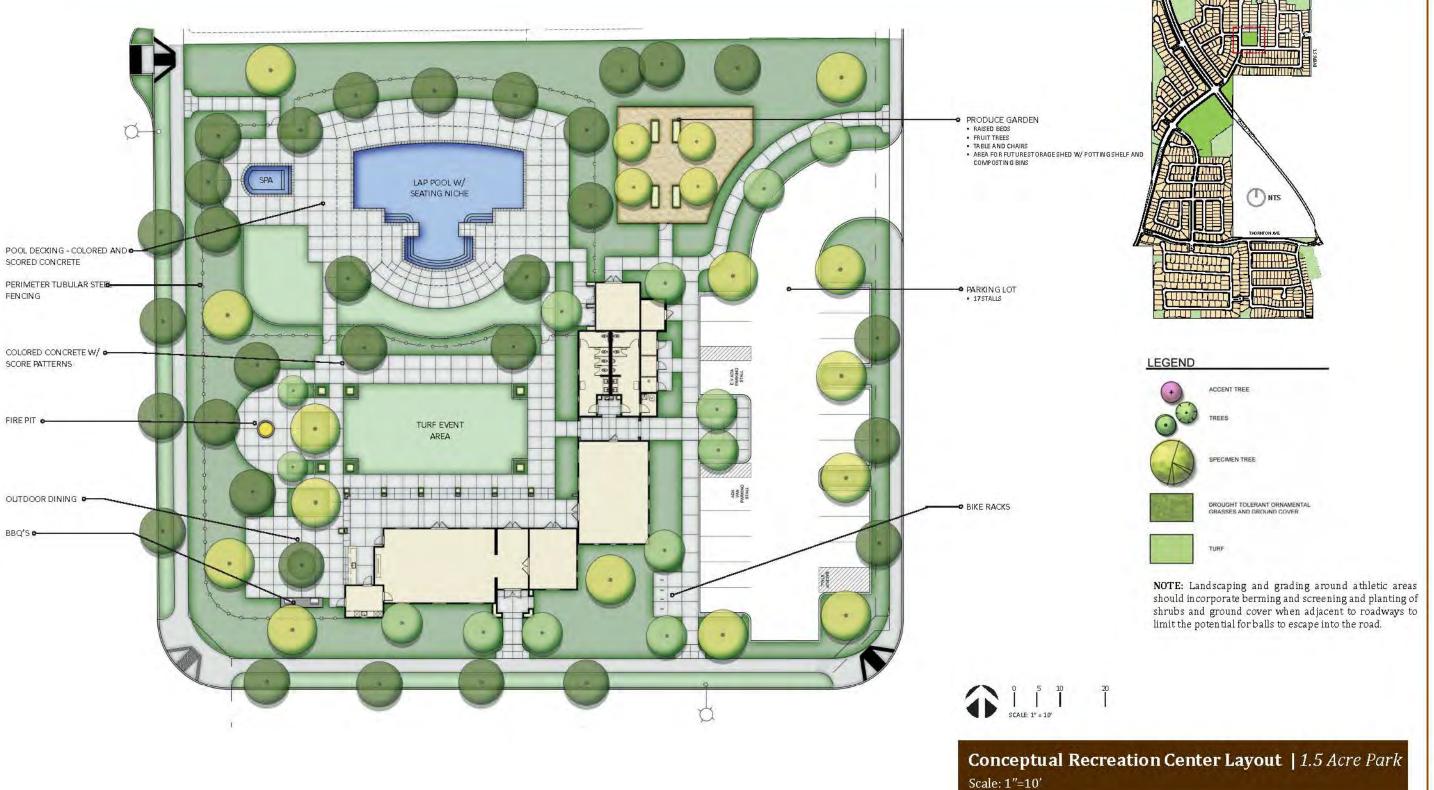


Figure 3.1-5

Conceptual

Recreation Center

Layout

1.5 Acre Park





Figure 3.1-6

Conceptual

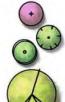
Park Layout

Pocket Park





LEGEND



ACCENT TREE



SPECIMEN TREE



DROUGHT TOLERANT ORNAMENTAL GRASSES AND GROUND COVER



TURF FOR ACTIVE/PASSIVE USE ENHANCED PAVING















Figure 3.1-6 Conceptual Park Layout 0.2 Acre Pocket

Park



The Quimby Act permits local jurisdictions to require dedication of land, payment of fees, or both, to provide up to 5 acres of parkland per 1,000 residents in new developments. The City of Menifee General Plan utilizes a standard of 5 acres of parkland per 1,000 persons (City of Menifee General Plan, Open Space and Recreation Element, Policy 1.2). In addition, the city adopted Ordinance No. 2014-160 which amended the City's Municipal Code by adding Chapter 9.45 to require the dedication of land or the payment of fees in-lieu-thereof for park and recreational purposes as a condition of approval for residential developments. As shown below in **Table 3.0-C, State Quimby Required Parkland and Proposed Parkland**, the 13.8 acres of combined park space in Planning Areas 1B, 4B, and 5B will fulfill the State Quimby Act requirements. Using a population factor of 3.164 persons per household, Cimarron Ridge would generate approximately 2,392 residents. Applying the State Quimby Act and General Plan requirements of 5 acres per 1,000 persons, Cimarron Ridge would be required to set aside 11.96 acres of park area. The Cimarron Ridge Specific Plan contains 13.8 acres of combined park area. Furthermore, Planning Areas 5A and 6 will be age-restricted developments and require less parkland acreage than a typical single-family residential development. It is not anticipated that payment in-lieu-of pursuant to City Municipal Code Section 9.45 to offset the difference in required parkland is needed with the Specific Plan Amendment.

Table 3.0-C, State Quimby Required Parkland and Proposed Parkland

Total Number of Units	Average Population per Unit	Assessment Factor (Acre/Resident)	Required Quimby Acres	Total Parkland Proposed
756	2.851	5/1000	10.77	13.8

The population factor of 2.85 persons per household was provided by City staff. The calculation to determine the Required Quimby Acres is as follows: (756 dwelling units) x (2.85 average population/unit) x (0.005 Assessment Factor) = 10.77 acres.

Water Quality Basin

As shown in Figure 3.1-1, Conceptual Development Plan, four water quality basins totaling 11.5 acres are planned for in Planning Areas 1A, 4A, 5A, and 6. Water quality basins are an allowable land use in the residential land use category

and are calculated on the Land counted within the total

The four water quality basins along the perimeter of the will have its own special amenities, but they will serve to contain a special landscape

Open Space Conservation

As shown in **Figure 3.1-2,** Conservation on the Land Use view shed of the natural that this area serves as a remain in its natural habitat.



Use Plan and in the land use tables above as having an underlying land use designation of MDR. Therefore, the water quality basins are acreage for the MDR land use category.

serve as detention basins during large storm events and facilitate drainage across the community. Furthermore, each basin will be located community and will serve as a buffer to perimeter roadways and off-site land uses. In concert with the surrounding homes, each basin landscape treatment to convey unique design and character. The basins are not expected to provide any active recreational or park as an open space amenity for the community. A conceptual basin concept is depicted in **Figure 3.1-7**. As shown, the basins are envisioned treatment that will reinforce the community landscape theme and serve as an open space amenity.

Land Use Plan, approximately 3.1 acres in Planning Area 7B are designed as natural open space, which is designated as Open Space Plan. This area consists of steep slopes and will serve to provide support and banking to the adjacent lots and roads and function as a environment. It is important to note that while the land use category is Open Space Conservation, the designation is not intended to imply habitat conservation area. Rather, for the purposes of this Specific Plan, the 3.1 acres is not counted toward developable area, and will



3.4.6 Trail Network

An important element of system will provide network includes a 10-footproposed 10.9-gross acre McLaughlin Road, Valley planned throughout the lots within each Planning that reinforce pedestrian-

The Cimarron Ridge Specific Multipurpose Trail is a uses. The SCE Multipurpose

3.4.7 Street Network

Cimarron Ridge consists of



Cimarron Ridge is the provision of an interconnecting trail network that will serve residents and the surrounding communities. The trail opportunities for pedestrian travel and recreation, as well as increase public access to useable open space and recreational spaces. The trail wide multipurpose trail along Valley Boulevard and Goetz Road that will facilitate access and connect individual neighborhoods to the park. Other components of the trail system include an enhanced sidewalk along Byers Road, a 6-foot-wide Class II bicycle lane along Boulevard, Goetz Road, U Street, and Thornton Avenue, a 5-foot-wide Class II bicycle lane along Byers Road, and numerous sidewalks community. The bicycle trails and sidewalks are intended to provide pedestrian connections to individual Planning Areas and to individual Area. Finally, streets planned for Cimarron Ridge are designed to feature distinctive community-based landscaping, sidewalks, and trails friendly circulation. The community's trail system is described in greater detail in *Chapter 3.2, Circulation Plan.*

Plan will also provide connectivity to the off-site Southern California Edison (SCE) Multipurpose Trail to the north of the site. The SCE naturally maintained trail that runs adjacent to McLaughlin Boulevard. The SCE Multipurpose Trail provides hiking, biking, and equestrian Trail is discussed in more detail in *Chapter 3.2, Circulation Plan*.

approximately 65 acres of infrastructure, which includes the backbone street network. The circulation routes range from 56-foot-wide local streets to 128-foot-wide arterial roadways. Local streets are not shown in **Figure 3.1-2**, **Land Use Plan** as the final alignments of all internal streets will be determined during the tract map and grading stage. The community's circulation system is discussed in more detail in *Chapter 3.2, Circulation Plan*. However, as conceptually shown in **Figure 3.1-1, Conceptual Development Plan**, a major feature of the Land Use Plan for Cimarron Ridge will be the local street network that will feature "U- shaped loop streets" within each neighborhood. This road pattern ensures that very little through-traffic will traverse local streets, thereby allowing streets to function like cul-de-sacs but with more neighborhood connectivity. By keeping the local residential street U-shaped and shorter in length, Cimarron Ridge alleviates high speed vehicle travel and pass-through drivers. In addition, U Street, and Thornton Avenue are proposed as Promenade streets. Promenade streets are a central feature of Cimarron Ridge. They are designed to feature rich community-based streetscapes, helping define the sense of arrival in Cimarron Ridge, and to complement the urban design fabric while also contributing to the overall site character. The community's circulation system is discussed in more detail in *Chapter 3.2, Circulation Plan*.



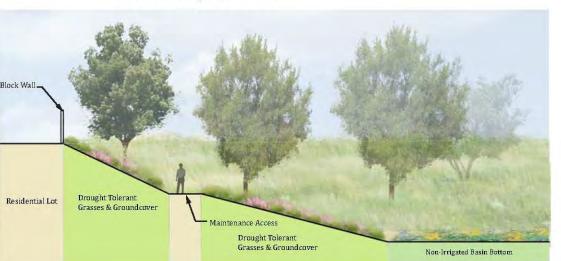




Section A-A | Scale 1"=20'

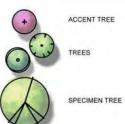


Section B-B | Scale 1"=20'



Section C-C | Scale 1"=20'

LEGEND





DROUGHT TOLERANT ORNAMENTAL GRASSES AND GROUND COVER.



NON IRRIGATED BASIN BOTTOM HYDRO-SEEDED WITH CALIFORNIA NATIVE PLANT MIX.

Basin Concept | Typical Layout Scale: 1"=50'

NOTE: No wall or fence shall be required or constructed at top of slopes A-A & B-B

KEY MAP

NTS

Figure 3.1-7 **Basin Concept**

Typical Layout



3.4.8 Development Standards

In order to ensure the orderly development of the residential and recreational uses proposed for the Specific Plan, zoning standards have been created for each Planning Area. These area-specific standards are discussed in detail in *Chapter 4, Development Standards*. In addition to these specific descriptions, Project-wide development standards have been prepared to complement the unique conditions within each Planning Area. These general standards are as follows:

- 1) The total Specific Plan shall be developed with up to 756 dwelling units on approximately 240 acres, as illustrated on the Land Use Plan (Figure 3.1-2, Land Use Plan). General uses permitted will include residential, parks, recreation, open space and circulation as delineated on the Land Use Plan, and in *Chapter 4, Development Standards*.
- 2) Each Planning Area contains a target number of dwelling units based on adjusted gross density. During the site plan and TTM stage of the development process, the final number of dwelling units for a particular Planning Area may differ from those identified in the Specific Plan, so long as the density falls within the range specified by the land use designation. Furthermore, the actual amount of units may be less than, but shall not be more than, the noted number of dwelling units for each Planning Area as illustrated on the Land Use Plan (Figure 3.1-2).
- 3) Common areas identified in the Specific Plan shall be owned and maintained as follows:
 - a) A permanent master maintenance organization shall be established for the Specific Plan area, to assume ownership and maintenance responsibility for all common recreation, open space, circulation systems and landscaped areas. The organization may be public or private. A merger with an area-wide or regional organization will satisfy this standard provided that such organization is legally and financially capable of assuming the responsibilities for ownership and maintenance. If the organization is a private association, then neighborhood associations may be established for each residential development, as needed, and such associations may assume ownership and maintenance responsibilities for neighborhood common areas.
 - b) Unless otherwise provided for in these standards, common areas shall be conveyed to the maintenance organization as implementing development is approved or any subdivision is recorded.
 - c) The maintenance organization shall be determined prior to or concurrent with recordation of any final subdivision map.

3.2 CIRCULATION PLAN



3.2.1 Introduction

The Circulation Plan for Cimarron Ridge reinforces the concept of traditional neighborhood design. The Cimarron Ridge Specific Plan proposes a circulation system comprising roads, pedestrian pathways, and trails to provide for efficient and effective access to and through the site. The Circulation Plan is designed to provide optimal circulation efficiency as well as safety for guests and residents. A description of the proposed Circulation Plan is described below.

3.2.2 Project Access

As described in *Chapter 2.0, Planning Context and Existing Conditions* existing roads located near the site include Ethanac Road to the north, which ultimately connects to I-215. Other existing roads currently serving the site include Goetz Road which traverses the western portion of the site. Valley Boulevard is located to the southeast of the site and terminates near Thornton Avenue. Chambers Avenue and Thornton Avenue are located to the east of the site and terminate at Valley Boulevard. Rouse Road is also located east of the site and terminates near Byers Road. Troy Lane and Byers Road are located to the east of the site and are currently unpaved dirt roads. McLaughlin Road, to the north, is also an unpaved dirt road.

As shown in **Figure 3.2-1, General Plan Roadway Network**, Cimarron Ridge is located approximately 2 miles west of I-215, which is the major thoroughfare in this portion of the County, linking Menifee to northern Riverside County and San Diego County. A system of connected expressways, arterial highways, and collector roads are planned to serve the Project area and augment I-215 in moving through traffic to and from other communities. Planned expressways near the Project site include Ethanac Road, which is located 0.5 miles to the north. Valley Boulevard is planned as an arterial road traversing the site. Planned major roads that would serve the site include Goetz Road and Rouse Road (which are both planned to terminate at Valley Boulevard). Planned secondary roads that would serve the site include McLaughlin Road, Murrieta Road, and Chambers Avenue to the east. Byers Road is located immediately to the east of the site and is a designated collector road to facilitate access to Ethanac Road and other roads that facilitate traffic.

Primary access to the Project site will be from Valley Boulevard and Goetz Road. Secondary access to the site will be via McLaughlin Road to the north and Thornton Avenue to the south. A number of interior circulation roads will facilitate access to the interior of the Project site.



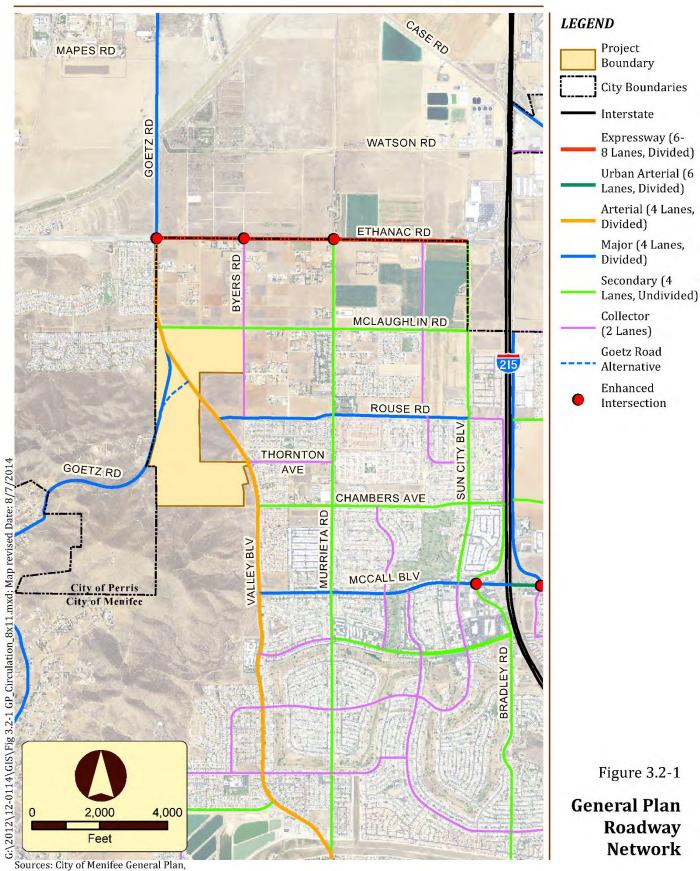


Exhibit C-3, 2012; NAIP, 2011.



3.2.3 Vehicular Network

The vehicular network system proposed for Cimarron Ridge establishes a design hierarchy where local streets serving the individual neighborhoods feed into collector streets that will form the backbone system through the site. The Circulation Plan includes several roadway sizes and classifications, as described in more detail below.

The local roads planned for PA 5A and PA 6 will be private roadways but will be built to the appropriate classification standards set forth in The Circulation Plan below.

Valley Boulevard

As shown in **Figure 3.2-1, General Plan Roadway Network,** Valley Boulevard is designated in the Menifee General Plan as an arterial roadway (four lanes, divided). As of the writing of this Specific Plan, this roadway is currently improved between Chambers Avenue and Thornton Avenue as a two-lane roadway with a sidewalk and landscaped buffer on the eastern side of the street (see Photo 3.2-1 below). The section of Valley Boulevard north of Thornton Avenue is unimproved and undeveloped.

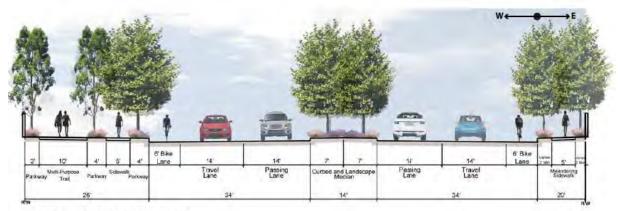
Photo 3.2-1. View of Valley Boulevard looking northwest toward the intersection of Valley Boulevard and Thornton Avenue



As shown in **Figure 3.2-2, Proposed Circulation Plan**, Valley Boulevard will be constructed as a part of the Project from the intersection of Thornton Avenue to the intersection of McLaughlin Road. When completed, Valley Boulevard will provide improved access for the existing surrounding communities from the southern portion of the Project area to the northern area. As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, Valley Boulevard is



planned as a 128-foot-wide right-of-way with four travel lanes and a raised median to separate oncoming traffic. Valley Boulevard is also enhanced with a striped 6-foot-wide Class II bike lane on each side of the roadway. The Class II bike lane is designed for bike use only and would prohibit parking along both sides of the street. Along the western side of Valley Boulevard, a 26-foot-wide parkway is proposed to accommodate a planned 10-foot-wide multipurpose trail and a 5-foot-wide sidewalk that would be separated from the roadway by a landscaped parkway. Along the eastern side of Valley Boulevard, a 20-foot-wide parkway is proposed with a planned 5-foot-wide meandering sidewalk that will be separated from the roadway by a landscaped parkway.



Section G | Valley Blvd.

Goetz Road

As shown in **Figure 3.2-1**, Goetz Road is designated in the Menifee General Plan as a major roadway (four lanes, divided). As of the writing of this Specific Plan, the roadway is currently improved as a two-lane roadway without any curbs, gutters, or sidewalks. A picture of Goetz Road is shown below.

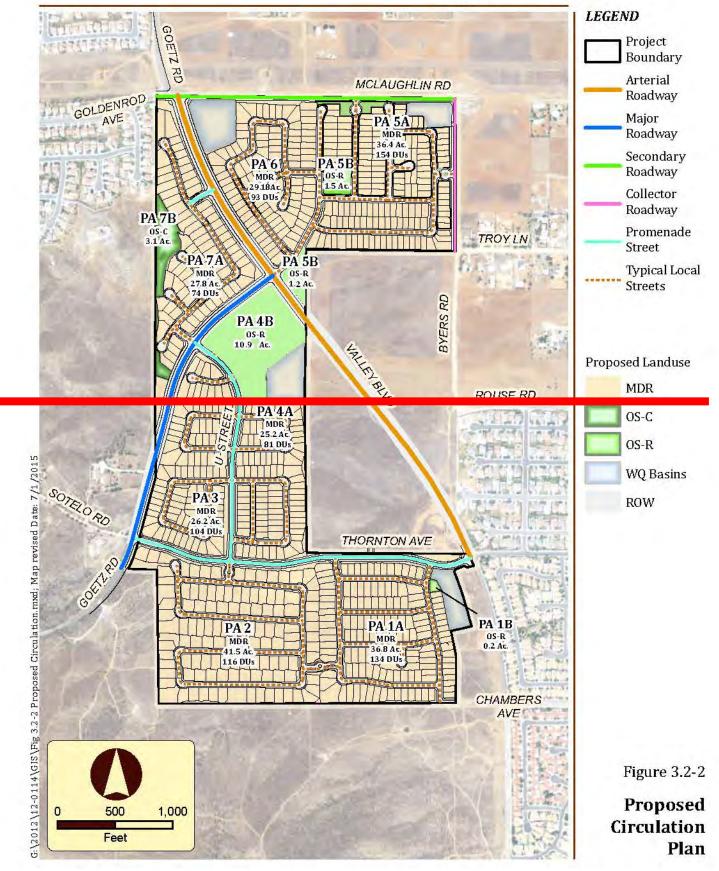
A General Plan Amendment is currently being processed for a technical correction to rectify mapping errors which resulted in inaccurate depictions of the alignment of Goetz Road. Specifically, *Exhibit C-3 Roadway Network* of the General Plan recognizes two alignments for Goetz Road at the intersection with Valley Boulevard: 1) the existing, built alignment of Goetz Road that would merge with Valley Boulevard, and 2) the realignment of Goetz Road that would include a controlled intersection with Valley Boulevard. **Figure 3.2-1, General Plan Roadway Network** illustrates the existing General Plan roadway network shown in the General Plan, including both alignments for Goetz Road. The technical correction will change the General Plan roadway network to match what is shown on **Figure 3.2-2, Proposed Circulation Plan**.



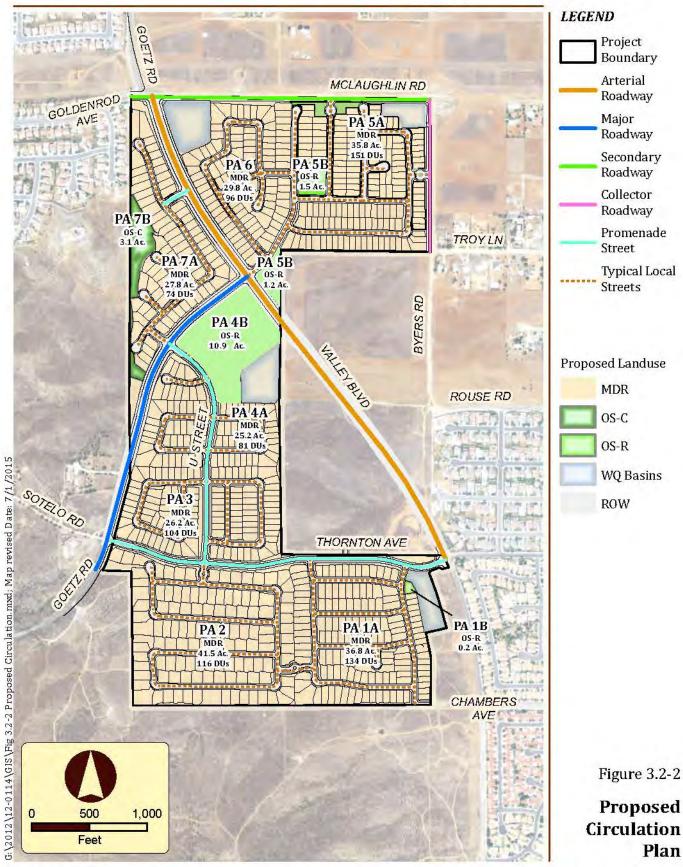
Photo 3.2-2. View looking north along Goetz Road at the intersection of Goetz Road and Sotelo Road



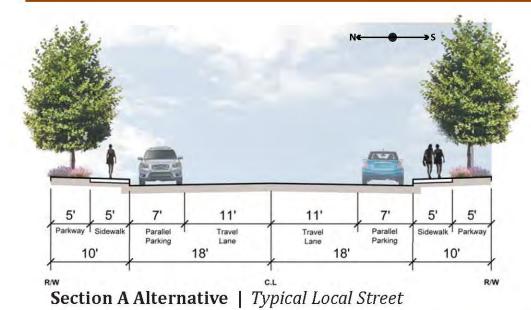


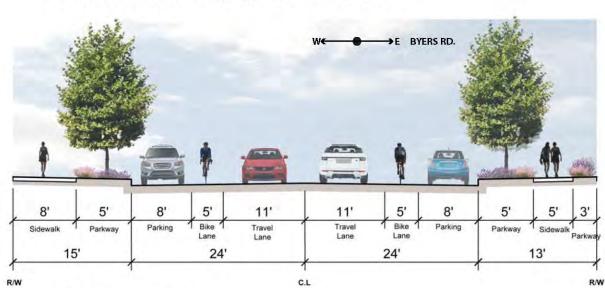








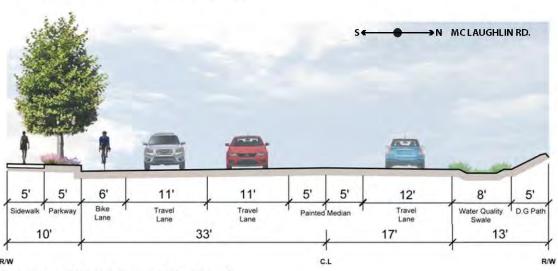




Section C | Byers Road.

Plan C
Promenade Streets

W E E S N N Section B | Promenade Streets



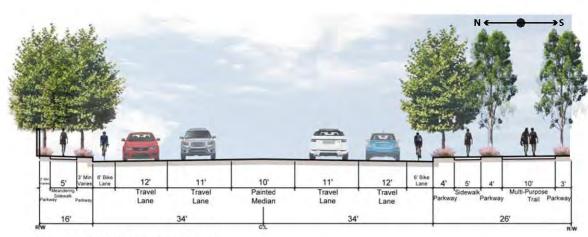
INTS
THORNTON AVE.

Section D | McLaughlin Road

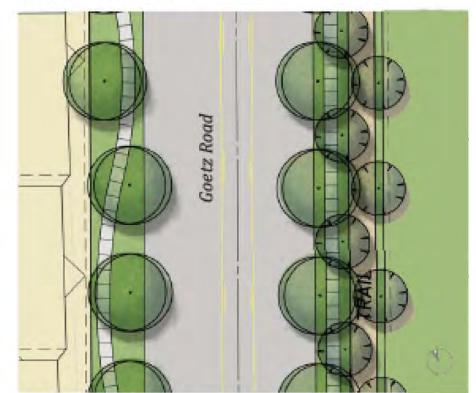
Figure 3.2-3A

Roadway Cross Sections

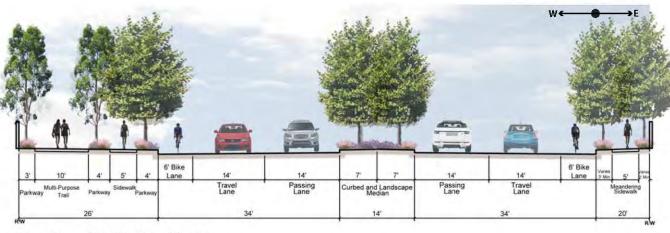




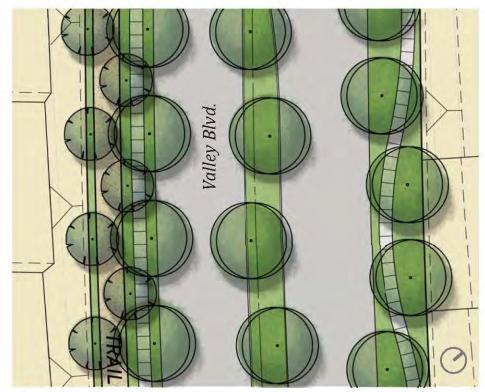
Section F | Goetz Road



Plan F | Goetz Road



Section G | Valley Blvd.



Plan G | Valley Blvd.

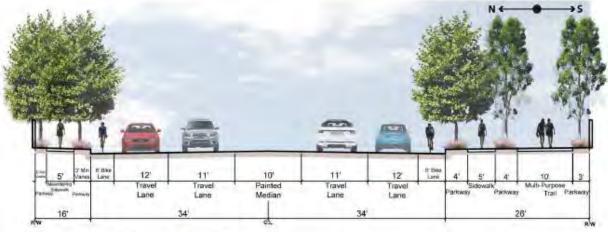


Figure 3.2-3B

Roadway Cross Sections



As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, Goetz Road is proposed as a 110-foot-wide right-of-way. The 110-foot-wide section includes four travel lanes and a painted median. Goetz Road is also enhanced with a striped 6-foot-wide Class II bike lane on each side of the roadway. The Class II bike lane is designed for bike use only and would prohibit parking along both sides of the street. Along the southern side of Goetz Road there is a proposed 26-foot-wide landscaped parkway, which includes a 10-foot-wide multipurpose trail and a 5-foot-wide sidewalk that is separated from the roadway by a landscaped parkway. Along the northern side of Goetz Road, a 16-foot-wide landscape parkway is proposed with a 5-foot-wide meandering sidewalk separated from the roadway by a landscaped parkway.



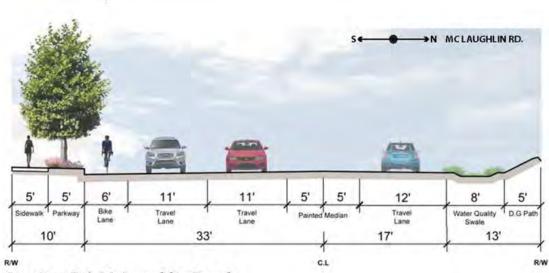
Section F | Goetz Road



McLaughlin Road

As shown in **Figure 3.2-1**, McLaughlin Road is designated in the Menifee General Plan as a secondary roadway (four lanes, undivided). McLaughlin Road is currently undeveloped.

As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, McLaughlin Road is proposed as a 73-foot-wide right-of-way with two travel lanes on the southern side and one travel lane on the northern side. The southern side will also feature a 6-foot-wide Class II bike lane. The Class II bike lane is designed for bike use only. Along the southern side of McLaughlin Road there is a 5-foot-wide sidewalk and a 5-foot-wide landscaped parkway separating the sidewalk from the street. The northern side of McLaughlin Road features an 8-foot-wide water quality swale and a 5-foot-wide decomposed granite path.



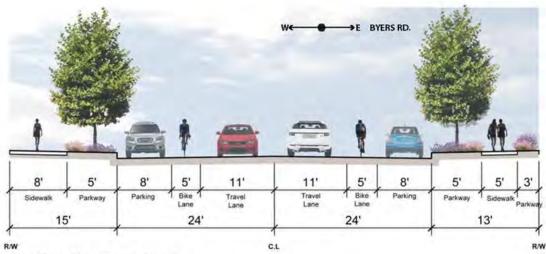
Section D | McLaughlin Road



Byers Road

As shown in **Figure 3.2-1**, Byers Road is designated as a collector (two lanes). Byers Road is currently undeveloped.

As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, Byers Road is proposed as a 74-foot-wide right-of-way with one travel lane in each direction. The shoulders are designed to accommodate a striped 5-foot-wide Class II bike lane on each side of the roadway. The Class II bike lane is designed for bike use only while also accommodating parallel parking along the shoulder. Along the eastern side of Byers Road there is a 3-foot-wide landscape buffer followed by a 5-foot-wide sidewalk and a 5-foot-wide landscaped parkway separating the sidewalk from the street. The western side of Byers Road features an enhanced 8-foot-wide sidewalk. A 5-foot-wide landscaped parkway adjacent to the curb along both sides of the roadway provides pedestrian and vehicular traffic separation.



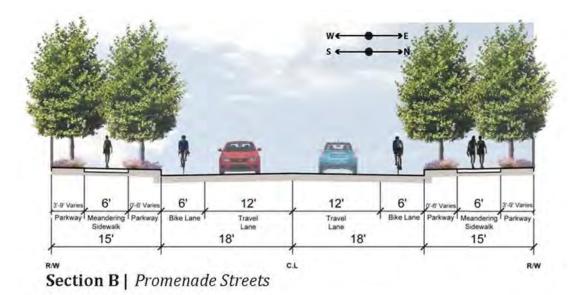
Section C | Byers Road.



Promenade Streets (U Street and Thornton Avenue)

As shown in **Figure 3.2-2, Proposed Circulation Plan,** U Street and Thornton Avenue are proposed as Promenade streets. As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, Promenade streets are two-lane streets intended to accommodate medium speed traffic. Promenade streets do not front onto any residential lots; rather they are designed to serve neighborhood traffic, connecting local and private streets with Valley Boulevard. Promenade streets feature a rich streetscape that is pedestrian and bicycle oriented, attractive, and green. Promenade streets are enhanced with a striped 6-foot-wide Class II bike lane on each side of the roadway. The Class II bike lane is designed for bike use only and would prohibit parking along both sides of the street. Promenade streets also feature a 6-foot-wide meandering sidewalk for pedestrian circulation that is flanked on both sides by an enhanced landscaped parkway.

Promenade streets are a central feature of Cimarron Ridge. They are designed to feature rich community-based streetscapes, helping define the sense of arrival in Cimarron Ridge, and to complement the urban design fabric while also contributing to the overall site character.

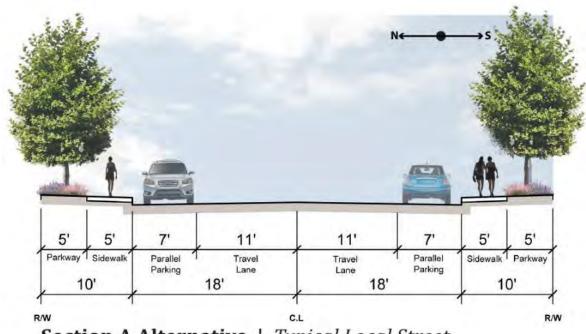


3.0-36



Typical Local Streets

As shown in Figure 3.2-2, Proposed Circulation Plan, the Cimarron Ridge Specific Plan contains a number of local roadways that will be located in or adjacent to residential neighborhoods and will be used primarily by future residents. As shown in **Figure 3.2-3**, Roadway Cross Sections and in the picture below, local streets are two-lane roadways with parking on both sides and a sidewalk adjacent to the curb. Landscaped parkways adjacent to the sidewalk encourage safe pedestrian movement within and between residential neighborhoods.

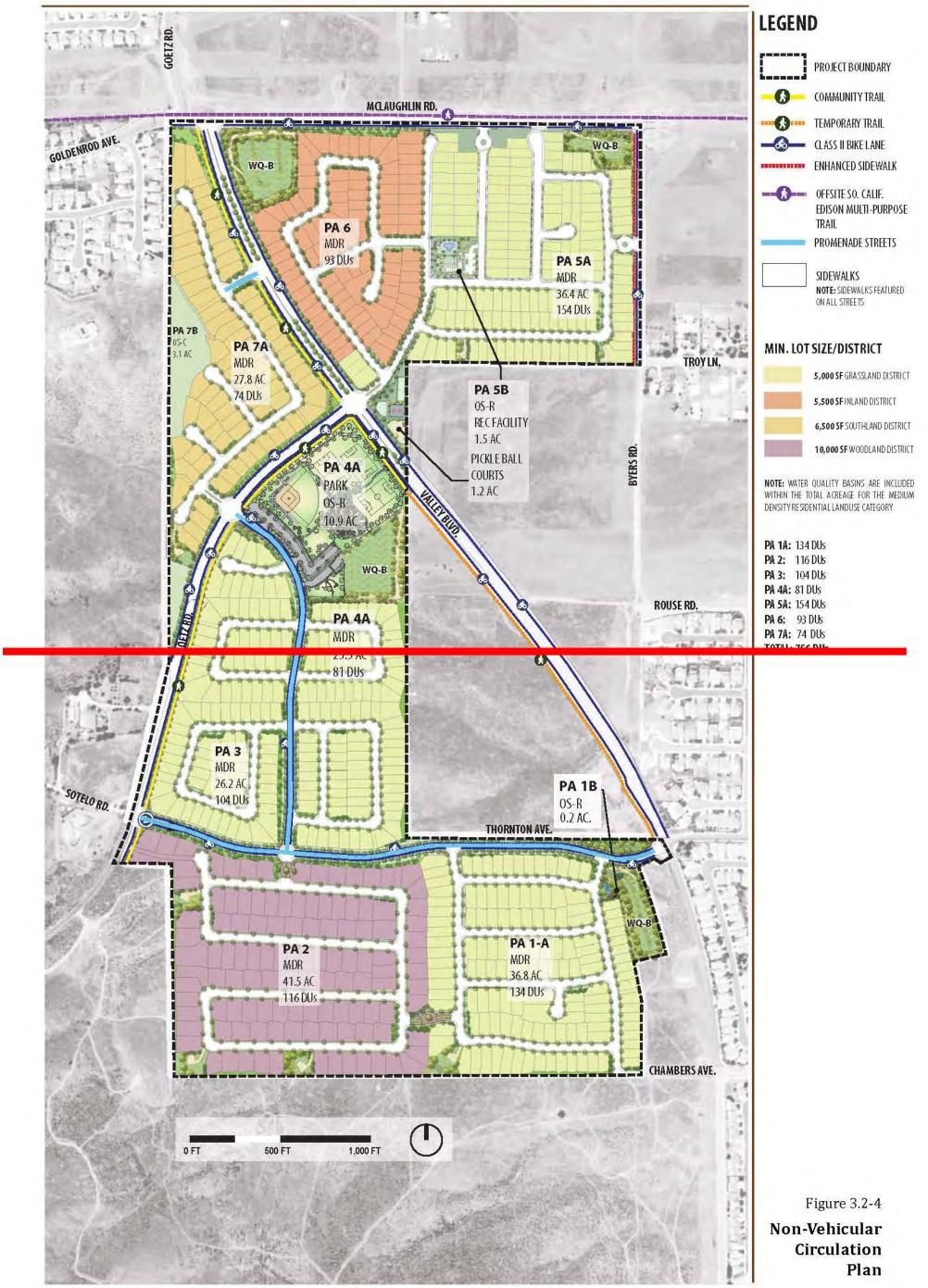


Section A Alternative | Typical Local Street

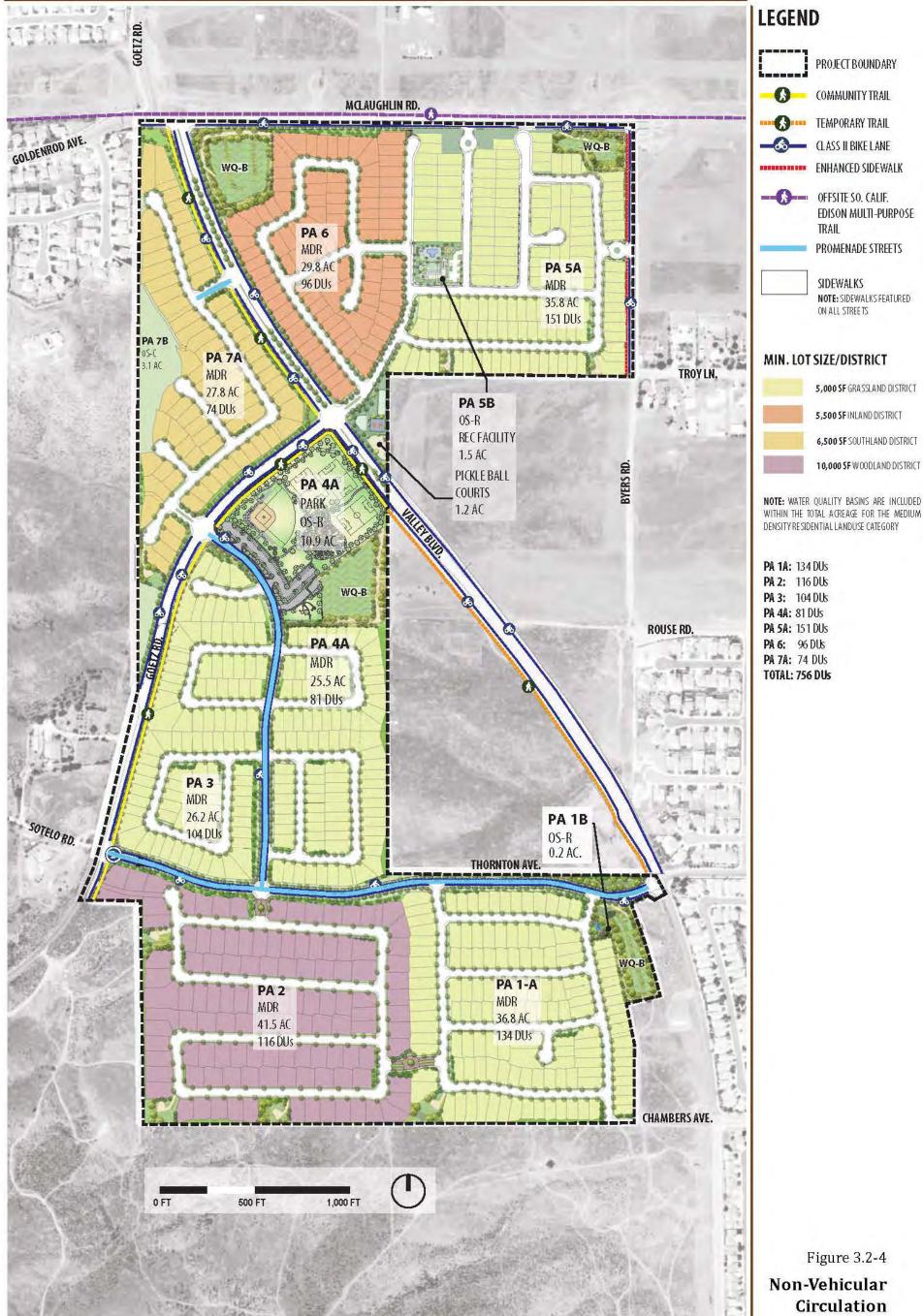
3.2.4 Non-Vehicular Network

An important element of Cimarron Ridge is the provision of an interconnecting trail network that will serve residents and the surrounding communities. The trail system will contain a comprehensive sidewalk, bike lane, and trail network that will connect neighborhoods to parks, recreational areas, and off-site recreational areas. As illustrated in Figure 3.2-4, Non-Vehicular Circulation Plan, the non-vehicular system proposed for Cimarron Ridge will provide for pedestrian and cyclist movement and connectivity through the site. The non-vehicular network, which consists of multipurpose trails, bike lanes, sidewalks, and off-site trails, ensures that residents will have opportunities to walk/bike/jog in different settings.









Plan



Multipurpose Trails

As shown in **Figure 3.2-4, Non-Vehicular Circulation Plan,** a 10-foot-wide multipurpose trail is proposed along the eastern side of Goetz Avenue and along the western side of Valley Boulevard. Goetz Road is shown in the General Plan Open Space Element as a designated Regional Trail. The multipurpose trail system along Goetz Road and Valley Boulevard will provide connectivity within the much larger surrounding community and lead to the 10.9-gross acre park, encouraging pedestrians and bicyclists to travel from surrounding areas.

As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, the proposed multipurpose trail system accommodates all modes of non-motorized transportation and features an earthen path with landscaping on both sides. The pathway will consist of decomposed natural granite blended with a soil stabilizer. Access to the multipurpose trail along Goetz Road will be provided by Thornton Avenue and U Street, while access to the multipurpose trail along Valley Boulevard will be provided by Thornton Avenue and Goetz Road.



An Example of a Multipurpose Trail

The multipurpose trail will provide pedestrian connections to McLaughlin Boulevard. The multipurpose trail also will provide connections to the off-site SCE trail north of McLaughlin Boulevard. Lastly, the multipurpose trail will provide pedestrian connectivity to the Promenade streets along Thornton Avenue and U Street. Promenade streets are pedestrian and bicycle oriented and feature a Class II bike lane on both sides of the right-of-way, meandering sidewalks, and a rich streetscape.



Class II Bike Lane

As shown in **Figure 3.2-4, Non-Vehicular Circulation Plan**, a striped Class II bike lane is proposed along both sides of Valley

Boulevard, Goetz Road, U Street, and Thornton Avenue, and along the southern side of McLaughlin Road. The Class II bike lane will provide a 6-foot-wide striped lane for oneway bike travel. Except for along Byers Road, the Class II bike lane is designed for bike use only and would prohibit parking along both sides of the street. Along Byers Road, the Class II bike lane is 5 feet wide and would accommodate parallel parking along the shoulder. The Class II bike lane is designed to help link residents of individual neighborhoods to the proposed multipurpose trail system and to the planned 10.9-gross



acre park along Goetz Road and Valley Boulevard in the center of the community.

Sidewalks

As shown in **Figure 3.2-4, Non-Vehicular Circulation Plan**, sidewalks are proposed within the right-of-way of streets and roads in Cimarron Ridge. Sidewalks serve to provide pedestrian connections between the individual Planning Areas and individual lots within each Planning Area. As shown in **Figure 3.2-3, Roadway Cross Sections,** various sidewalk widths are proposed within the different street sections, and sidewalks are proposed on both sides of the right-of-way for all streets. In addition, an enhanced



sidewalk is featured along the west side of Byers Road. The enhanced sidewalk is 3 feet wider to provide optimal pedestrian linkage to the 10.9-gross acre park.

Sidewalks are intended to provide safe and efficient travel for pedestrians and bicyclists and facilitate connectivity to the larger roadways and trail systems within the community. By using various combinations of sidewalks, Class II bike lanes, and multipurpose trails, users will be connected to all recreational areas in Cimarron Ridge and to off-site recreational areas immediately outside of the community.



Off-site Southern California Edison Multipurpose Trail

The Cimarron Ridge Specific Plan will provide connectivity to the off-site Southern California Edison (SCE) Multipurpose Trail to the north of the site. The SCE Multipurpose Trail is a naturally maintained trail that runs adjacent to McLaughlin Boulevard. The SCE Multipurpose Trail provides hiking, biking, and equestrian uses.

3.2.5 Development Standards

- 1) All roadways within the Project area shall be constructed according to the minimum standards and guidelines set forth in this Specific Plan.
- 2) Any landscaping within public road rights-of-way will require approval by the City Engineer and assurance of continuing maintenance through establishment of a landscape maintenance district or similar mechanism as approved by the City.
- 3) A Conceptual Landscape Plan shall be provided with any implementing entitlement application that specifies the location, type, and size of trees, shrubs, and ground cover within the right-of-way and any park or open space area.

3.3 PUBLIC FACILITIES PLAN



3.3.1 Introduction

Conceptual infrastructure facility and service plans have been developed for the Cimarron Ridge Specific Plan to provide water and sewer services to the community and to identify the utility service companies servicing the Project area. These system plans are conceptual, based on preliminary service layouts and evaluations, and may be subject to modifications due to more precise engineering studies.

3.3.2 Water System

The Eastern Municipal Water District (EMWD) provides water and wastewater service to the Cimarron Ridge Project area. Domestic water provided by the EMWD is served with a blend of the California State Water Project and Colorado River waters, imported and supplied to the EMWD by the Metropolitan Water District (MWD).

The conceptual water system plan has been developed to service the Cimarron Ridge community, as shown on **Figure 3.3-1**, **Water Distribution Plan**. Adequate water service can be provided for the proposed Project using existing and planned facilities. As shown on **Figure 3.3-1**, the site will be serviced by the 1627 and 1798 water pressure service zones; additionally, the community's domestic water plan includes water lines that will be located in the planned rights-of-way varying in maximum diameter from 8 inches, 12 inches, and 18 inches.

As also shown on **Figure 3.3-1,** existing 12-inch water lines are located north of the site along McLaughlin Road and Valley Boulevard and to the east of the site along Thornton Avenue.

The conceptual water plan proposes to construct an 18-inch pipeline along the length of Valley Boulevard in order to provide connectivity from the Goetz Road booster station to the Ridgewater Road booster station and provide the primary source of water supply to the site. In addition, a 12-inch pipeline is proposed to extend from Thornton Avenue westerly across the site to Goetz Road, and then northerly along Goetz Road to complete the loop. However, prior to the proposed 12-inch pipeline reaching Goetz Road, it will branch out and extend southerly along an internal roadway to the southeast corner of the site. Finally, 8-inch pipelines are proposed to branch out from the planned 12-inch and 18-inch pipelines and the existing 12-inch pipeline to the north of the site to service individual neighborhoods.

In order to provide a reliable source of water for firefighting purposes, potable water is also delivered to all fire hydrants and fire sprinkler systems utilizing the potable water system. Thus, piping facilities for potable water are designed to accommodate both the domestic demand and the firefighting demand.



3.3.3 Sewer Facilities

The EMWD provides wastewater/sanitary sewer service to the Project area. The conceptual wastewater/sewer system plan is depicted in Figure 3.3-2, Sewer Network Plan.

As shown in **Figure 3.3-2**, existing 10-inch and 12-inch sewer lines are located along McLaughlin Road and an 8-inch line is located along Thornton Avenue. The Cimarron Ridge Specific Plan proposes the construction of an interior system of sewer lines along planned residential streets of the Cimarron Ridge community to service individual Planning Areas. Specifically, 8-inch lines are proposed along residential streets and cul-de-sacs and a 10-inch line is proposed along a portion of Byers Road to connect to the existing 10-inch sewer line along McLaughlin Boulevard.

3.3.4 Drainage Facilities

Preliminary hydrology studies, water quality studies, and on-site and off-site hydrology analysis conducted for the Cimarron Ridge Specific Plan indicate the need for the Cimarron Ridge Project to detain on-site the increased stormwater runoff that would result from Project development. The existing site is vacant and was previously rough graded per the previously approved TTMs. Therefore, in its current state, the site generates limited volumes of runoff. However, in its developed state, the Project will include extensive areas of impermeable surfaces from which rain will run off; this "additional" runoff (difference between existing and future) is the responsibility of the Project to detain on-site.

To capture, convey and detain this on-site runoff, a system of on-site detention facilities have been designed, located, and sized to accommodate the projected stormwater volumes. The Cimarron Ridge Specific Plan proposes a series of water quality basins and detention basins that have been integrated into the Land Use Plan (see Figure 3.1-2) and are planned to be situated at the low portion of each sub-area.

The conceptual Drainage Plan as illustrated on Figure 3.3-2 shows the planned storm drains, water quality basins, and detention basins.

As shown in **Figure 3.3-2**, Planning Areas 1 and 2 both drain to the east to the proposed water quality/detention basin located in Planning Area 1. This basin will then outlet to an existing 72inch storm drain east of the site. The off-site area to the south of the site is collected along the southerly side of Planning Areas 1 and 2 and conveyed through the Project and then off-site by way of a proposed off-site 51-inch storm drain that will convey storm flow to an existing 51-inch storm drain. The Project, through the use of the three proposed desilting basins along the south side of Planning Areas 1 and 2, will mitigate the flow through routing and controlling the discharge so that it does not exceed the existing design capacity. Planning Areas 3 and 4 will drain to a proposed water quality/detention basin located in the middle of the site in Planning Area 4. This basin will then outlet to an existing 90-inch storm drain located east of the Project boundary. Planning Areas 5, 6, 7 and 8 will drain to a proposed water quality/detention basin located in



Planning Area 6 and discharge to Line A-14 of the Riverside County Flood Control and Water Conservation District's Romoland Master Drainage Plan.

The Romoland Master Drainage Plan includes a regional storm drain improvement system referred to as "Line A" in the plan. Line A and its subsidiary storm drain lines consist of a series of open channel and closed conduit systems running in a general east–west direction and out flowing into the San Jacinto River watershed system. According to the City of Menifee General Plan EIR, the system has capacity of 5,250 cubic feet per second and discharges into the San Jacinto River. Sublines A-1 through A-18 will serve as north–south running interceptor drains and will outlet into the regional line A.

3.3.5 Telephone

The Project site is located with the service area of Verizon for telephone service. All proposed onsite telephone wires/cables will be placed underground.

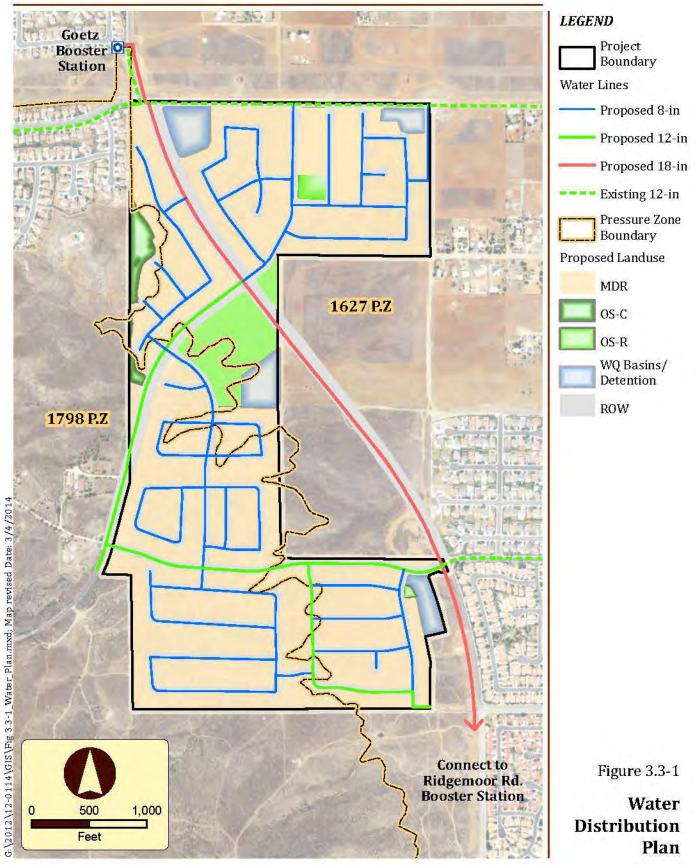
3.3.6 Natural Gas

The Southern California Gas Company will provide natural gas service to the site.

3.3.7 Electricity

SCE will provide electrical service to the site. The precise alignment for connection to the site will be determined at a later date in coordination with SCE. All proposed on-site electrical facilities will be placed underground.











3.3.8 Schools

As shown in **Figure 3.3-3**, future residents of Cimarron Ridge in Planning Areas 1, 2, and 3 would be served by the Menifee Union School District for grades K-8. Future residents in Planning Areas 4, 5, 6, and 7 would be served by the Romoland School District for grades K-8. The entire site would be served by the Perris Union High School District for grades 9-12.

Elementary school students (grades K-6) in the northern portion of the site would attend Boulder Ridge Elementary School, approximately 6.5 miles east of the site. Elementary school students (grades K-5) in the southern portion of the site would attend Ridgemoor Elementary School approximately 2.5 miles south. Middle school students (7-8) in the northern portion of the site would attend Ethan A. Chase Middle School, approximately 7.5 miles to the east, while middle school students in the southern portion of the site (grades 6-8) would attend Hans Christensen Middle School, approximately 5 miles southeast. High school students would attend Paloma High School, located approximately 5 miles south of the site.

Additional schools to serve the Cimarron Ridge site and the surrounding area may be built in the future as demand and funding allows. Cimarron Ridge will be required to offset its impacts to schools and school districts with upfront development impact fees, which are set and collected by each school district in addition to ongoing property taxes.

3.3.9 Police and Fire Protection

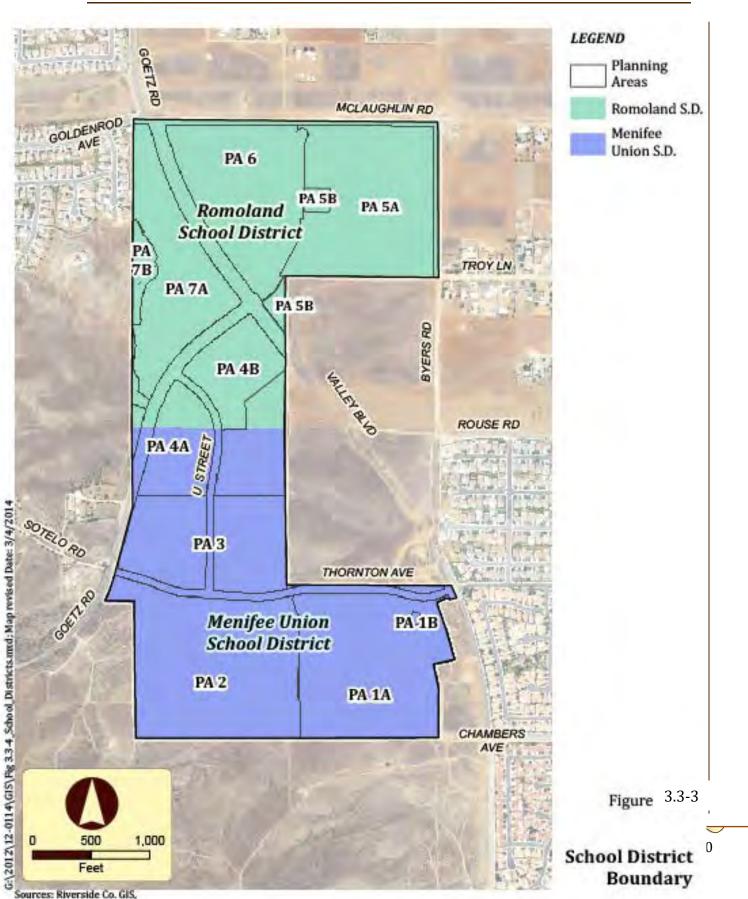
The City of Menifee contracts all law enforcement and fire protection services through the Menifee Police Department and the Riverside County Fire Department, respectively. The closest police station to the site is located 2.1 miles east of the site in Sun City. There are four fire stations in the City and each station has a paramedic engine company.

3.3.10 Development Standards

- 1) All water and sewer lines shall be designed per City and/or EMWD standards; all storm drain facilities shall be designed in accordance with City and/or Riverside County Flood Control and Water Conservation District (RCFC&WCD) design standards.
- 2) The location of water and sewer facilities will conform to the City of Menifee and EMWD standards.
- 3) Water and wastewater facilities shall be installed in accordance with the requirements and specifications of the Riverside County Health Department and EMWD.
- 4) All water and sewer lines shall be placed underground and inspected per the policies of the EMWD.
- 5) The design of all water facilities shall provide fire protection to the satisfaction of the Fire Department of the County of Riverside and as stated in the Cimarron Ridge Fire Protection Plan approved in July 2023.







2013; NAJP, 2011.

3.4 GRADING PLAN



3.4.1 Introduction

The Conceptual Grading Plan for the Cimarron Ridge Specific Plan has been prepared in conjunction with the land use and circulation plans to provide building pads that are safe from flooding or inundation. The grading concept is responsive to the physical character, location and type of land use, as well as the visual and environmental qualities of the site. The conceptual grading plan proposed for Cimarron Ridge is discussed in more detail below.

3.4.2 Existing Site Conditions

As described in *Chapter 2.0, Planning Context and Existing Conditions*, the site was previously mass graded and contains several elevated home pads, graded roads, and detention basins. The preliminary grading activities took place in 2007 and the site is currently being graded under TTM 36685 and the subsequent recorded maps, grading, and improvement plans.

As shown in **Figure 3.4-1, Existing Topography Map 2007**, the highest elevation is at 1,660 feet above mean sea level and the lowest elevation is at 1,456 feet above mean sea level. A portion of the site along the western perimeter contains steep slopes with elevations that range from approximately 1,560 feet to 1,640 feet, a difference of 80 feet.

3.4.3 Proposed Grading

The primary purpose of grading is to construct developable building lots, provide support and banking to roads, drainage and water quality features, and to provide access to the individual Planning Areas.

The conceptual Grading Plan is shown in **Figure 3.4-2, Proposed Grading Plan**. All cut and fill will be balanced on-site and will not require import or export of materials. Approximately 999,775 cubic yards of material will be moved overall (total estimated cut and fill) to achieve the cut and fill balance. This quantity may vary as final grading plans are developed. Balance of cut and fill in each phase; and within each Planning Area is the goal, however, in some cases a limited amount of off-phase grading may occur for borrow and stock piling sites.

This Grading Plan is conceptual in nature and therefore, as each development phase or Planning Area is submitted, a phase-specific Grading plan shall be submitted to the City for review and approval. Grading may occur in phases as development applications are processed. Specific phasing for each of the Planning Areas is discussed in *Chapter 3.5, Phasing Plan*.

3.4.4 Development Standards

1) All grading shall be in substantial conformance with the conceptual Grading Plan and shall implement any grading-related mitigation measures outlined in the EIR prepared for the Project.



- 2) Prior to any development within any Planning Area, an overall preliminary grading plan for the Planning Area in process shall be submitted to the Community Development Department and Public Works Engineering Department for approval. The grading plan for each such Planning Area shall be used as a guideline for subsequent detailed grading plans for individual stages of development within that Planning Area and shall include: (i) techniques employed to prevent erosion and sedimentation during and after the grading process; (ii) approximate time frames for grading and (iii) any necessary planning phase-specific water quality management plan (WQMP) resulting from changes that impact the overall WQMP approved for the development. Each Project-specific WQMP shall be reviewed and approved by the City.
- 3) All cut and/or fill or individual combinations thereof shall meet the minimum requirements of the California Building Code or governing code at the time of application submittal.
- 4) All grading activity shall conform to the recommendations of the preliminary soils report and subsequent reports prepared in conjunction with the grading plans.
- 5) The applicant shall be responsible for the maintenance and upkeep of all planting and irrigation systems until those operations become the responsibility of other parties.
- 6) When consistent with an approved Grading Plan, grading shall be permitted outside of the immediate area of development as follows:
 - a) Borrow sites are permitted on consenting off-site property and in areas scheduled for future development.
 - b) Excess cut from a given phase may be placed as engineered fill in a future development area or disposed of on consenting off-site property.
- 7) Grading work on the entire site shall be balanced on-site whenever possible.
- 8) The site is to comply with the National Pollution Discharge Elimination System (NPDES) best management practices for erosion and sedimentation control.
- 9) The site is to comply with the latest adopted WQMP guidelines for new developments as required by the latest MS4 Permit for the City of Menifee.
- 10) A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented concurrent with commencement of grading activities. A copy must be provided to the Public Works Engineering Department prior to issuance of a grading permit.



LEGEND

Project Boundary

Existing

Contours



Figure 3.4-1 **Existing Topography Map**

(2007)

Sources: Hunsaker and Assoc., Oct. 2013; County of Riverside, 2013; NAIP, April 2011.





3.5 PHASING PLAN



3.5.1 Introduction

The Phasing Plan has been designed to best utilize existing and planned infrastructure for an orderly and cost-effective approach to buildout. Development will occur in response to market demands and in accordance with the installation of necessary roads, wet infrastructure, and associated sites as outlined in this chapter. Accordingly, because the Phasing Plan is considered to be flexible, changes to the Phasing Plan will be considered minor provided that the Community Development Director determines that infrastructure is available to serve that phase, and that any mitigation measures linked to that phase, location, or level of development are implemented, as outlined in *Chapter 6.0, Administration, Implementation and Maintenance*.

3.5.2 Conceptual Phasing Plan

As depicted in **Figure 3.5-1, Phasing Plan**, Cimarron Ridge is designed for development in seven phases. **Table 3.5-1, Conceptual Phasing Schedule** identifies the approximate number and estimated timing of units to be constructed during each phase. In conjunction with the development of proposed homes, the orderly extension and construction of roadways, public utilities, and infrastructure will also occur. Figure 3.5-2, Implementing Facilities–1 to Figure 3.5-12, Implementing Facilities-11 further depicts the Phasing Plan for each Planning Area in Cimarron Ridge.



Table 3.5-1, Conceptual Phasing Schedule

Phase	Planning Area(s)to be Constructed	Lot Type	Lot Count	Major Infrastructure/Amenities
1	1A and 1B	5,000 sq.ft. minimum	134	Prior to issuance of first occupancy permit for Planning Area 1, Thornton Avenue shall be completed between Goetz Road and Valley Boulevard as shown in Figure 3.5-1. Prior to issuance of first occupancy permit for Planning Area 1, the off-site connection from 475 feet south of Goetz Road to Thornton Avenue shall be improved to half width improvements, only on the Project side, as shown in Figure 3.5-1. An appropriate transition shall be approved by the Public Works/ Engineering Department. Prior to the issuance of the first occupancy permit for Planning Area 1, the Project applicant shall install a traffic signal at the intersection of Murrieta Road (NS) and Thornton Road (EW). Please refer to the Traffic Impact Analysis and the EIR for a detailed list of all mitigation measures related to traffic improvements. Prior to the issuance of the first occupancy permit for Planning Area 1, the Project applicant shall pay its fair share responsibility towards traffic improvements at the intersection of Goetz Road (NS) and Ethanac Road (EW). Please refer to the Traffic Impact Analysis and the EIR for a detailed list of all mitigation measures related to traffic improvements. On-site streets necessary to serve development. Water quality basin. Pocket park.



				RIDGE
	Planning			
Dhasa	Area(s)to be	I at Tame	Lot	Mai an Information / Amandition
Phase	Constructed	Lot Type	Count	Major Infrastructure/Amenities
2	2	10,000 sq. ft. minimum	116	Prior to issuance of 61st occupancy permit for Planning Area 2, full improvements to Valley Boulevard within the Project and off-site improvements to Valley Boulevard, two lanes and a temporary trail shall be completed as shown in Figure 3.5-1. Prior to issuance of 61st occupancy permit for Planning Area 2, the off-site portion of Goetz Road shall be improved to half width improvements, only on the Project side, and the on-site portion of Goetz Road shall be improved to full width as shown in Figure 3.5-1. An appropriate transition shall be approved by the Public Works/Engineering Department. Prior to issuance of the 61st occupancy permit for Planning Area 2, full improvements to Goldenrod Avenue shall be completed as shown in Figure 3.5-1. Concurrent with the construction of Valley Boulevard and Goetz Road, the Project applicant shall install a traffic signal at the intersection of Goetz Road (EW) and Valley Boulevard (NS). Please refer to the Traffic Impact Analysis and the EIR for a detailed list of all mitigation measures related to traffic improvements. On-site streets necessary to serve development.
3	3	5,000 sq. ft. minimum	104	Prior to issuance of the first occupancy permit for Planning Area 3, U Street shall be completed between Goetz Road and Thornton Avenue, as shown in Figure 3.5-1. Prior to the issuance of the first occupancy permit for Planning Area 3, the Project applicant shall pay its fair share contribution towards traffic improvements at the intersection of Murrieta Road (NS) and Thornton Avenue-Sun Meadows Drive (EW). Please refer to the Traffic Impact Analysis and the EIR for a detailed list of all mitigation measures related to traffic improvements. On-site streets necessary to serve development.
4	4A and 4B	5,000 s q . ft. minimum	81	On-site streets necessary to serve development. Prior to 50% occupancy, 10.9-gross acre neighborhood park to be under construction. In order for park to be completed and utilized, traffic signal at Goetz Road and Valley Boulevard must be operational.



Phase	Planning Area(s)to be Constructed	Lot Type	Lot Count	Major Infrastructure/Amenities
5	5A and 5B	5,000 s q . ft. minimum	151	Prior to issuance of the first occupancy permit for Planning Area 5, full width improvements to McLaughlin Road shall be completed, including offsite, as shown in Figure 3.5-1. Prior to issuance of the first occupancy permit for Planning Area 5, half width improvements to Byers Road shall be completed only on the Project side, as shown in Figure 3.5-1. Prior to issuance of the first occupancy permit for Planning Area 5, full width improvements to Goetz Road (north of Valley Boulevard) shall be completed as shown in Figure 3.5-1. Prior to the issuance of the first occupancy permit for Planning Area 5, the Project applicant shall install a traffic signal at the intersection of Murrieta Road (NS) and Thornton Avenue-Sun Meadows Drive (EW). Please refer to the Traffic Impact Analysis and the EIR for a detailed list of all mitigation measures related to traffic improvements. Water quality basin in Planning Area 5A. Private on-site streets necessary to serve development and recreation center.
6	6	5,500 s q . ft. minimum	96	Private on-site streets necessary to serve development. Water quality basin.
7	7A and 7B	6,500 s q . ft. minimum	74	On-site streets necessary to serve development.

Buildout of Planning Areas 1-7 shall follow the Phasing Plan shown in **Figure 3.5-1**.

This conceptual development phasing represents the best estimate of the applicant. The exact phasing and timing in which the roads and other infrastructure are constructed may be dependent on the processing of off-site improvement permits and extension of off-site improvements. Additionally, the exact order in which internal streets and other infrastructure are constructed is dependent on the location of each Planning Area and its estimated timing, subsequently the Planning Areas can be constructed in any order as well as concurrently. Therefore, the proposed conceptual phasing schedule may be amended in conjunction with approval of tentative maps and site plans without requiring an amendment to the Specific Plan as outlined in *Chapter 6.1*, *Administration and Implementation Plan*.



3.5.3 Development Standards

1) The phasing sequence described herein is conceptual. Therefore, at the time of development, if it is determined that the market demand warrants certain Planning Areas to be developed out of the expected sequence, it will be permissible provided that the required infrastructure and services are available at the time of development.



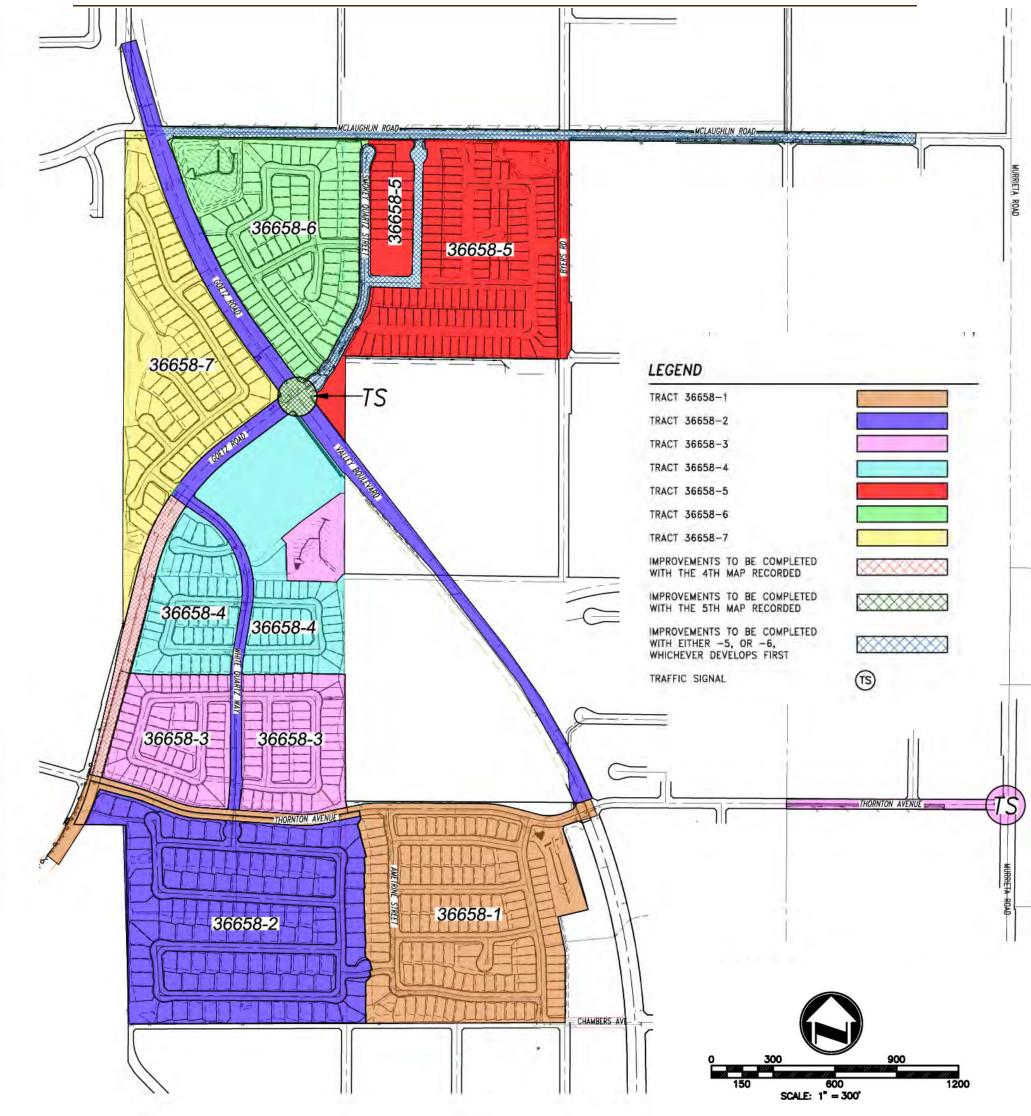


Figure 3.5-1

Phasing Plan



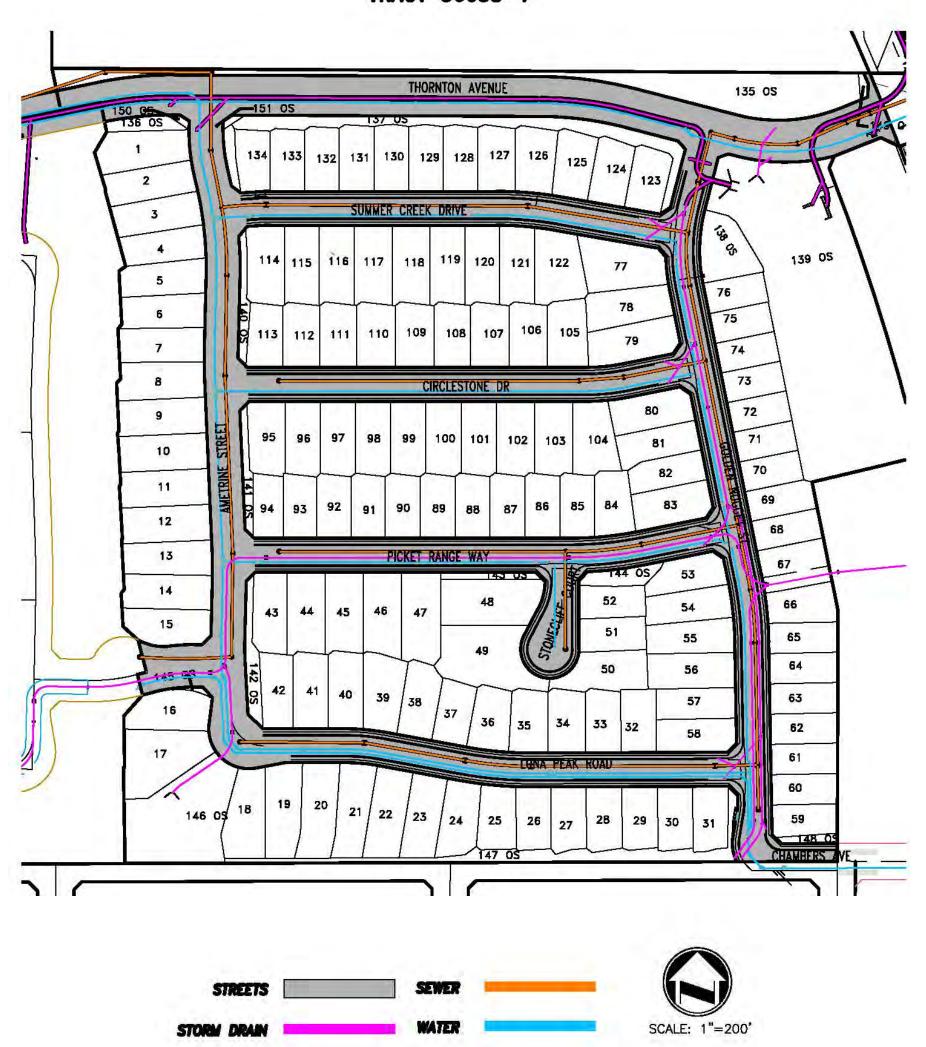


Figure 3.5-2



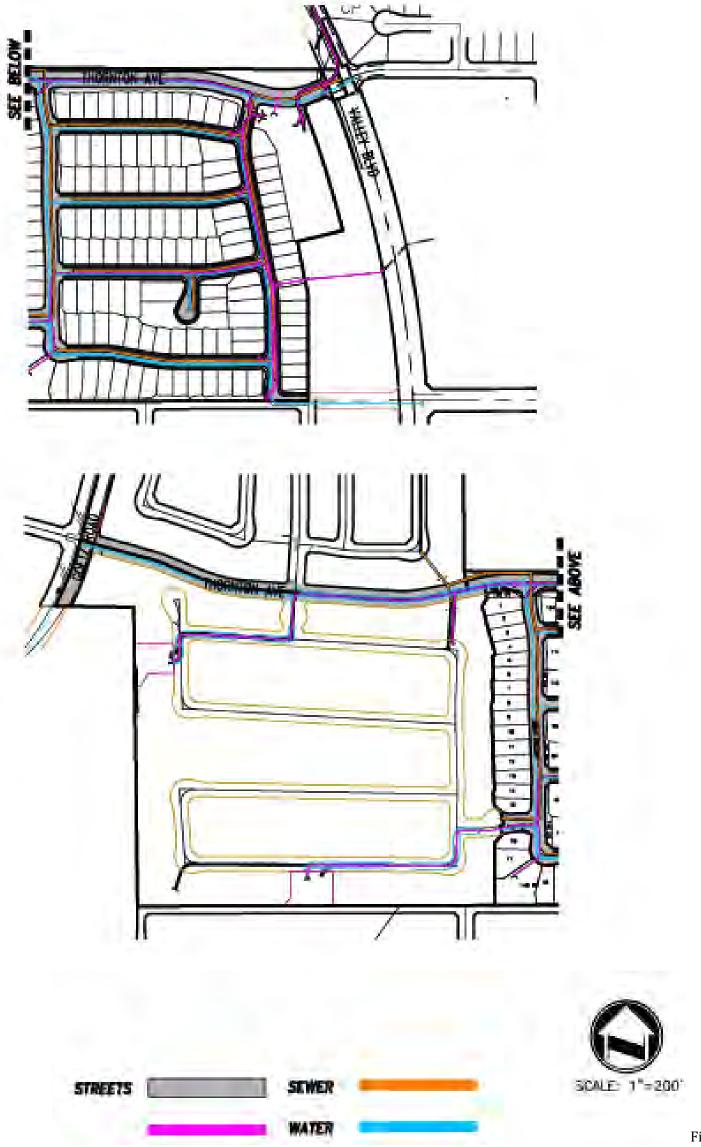


Figure 3.5-3



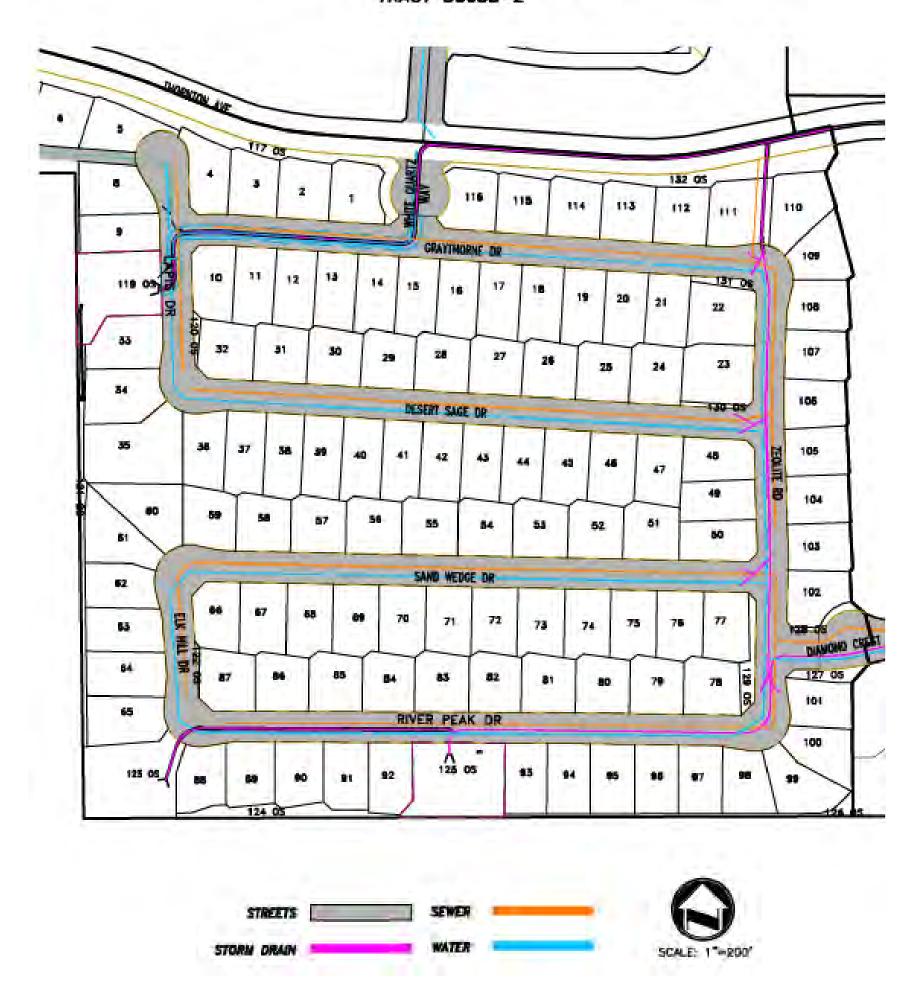
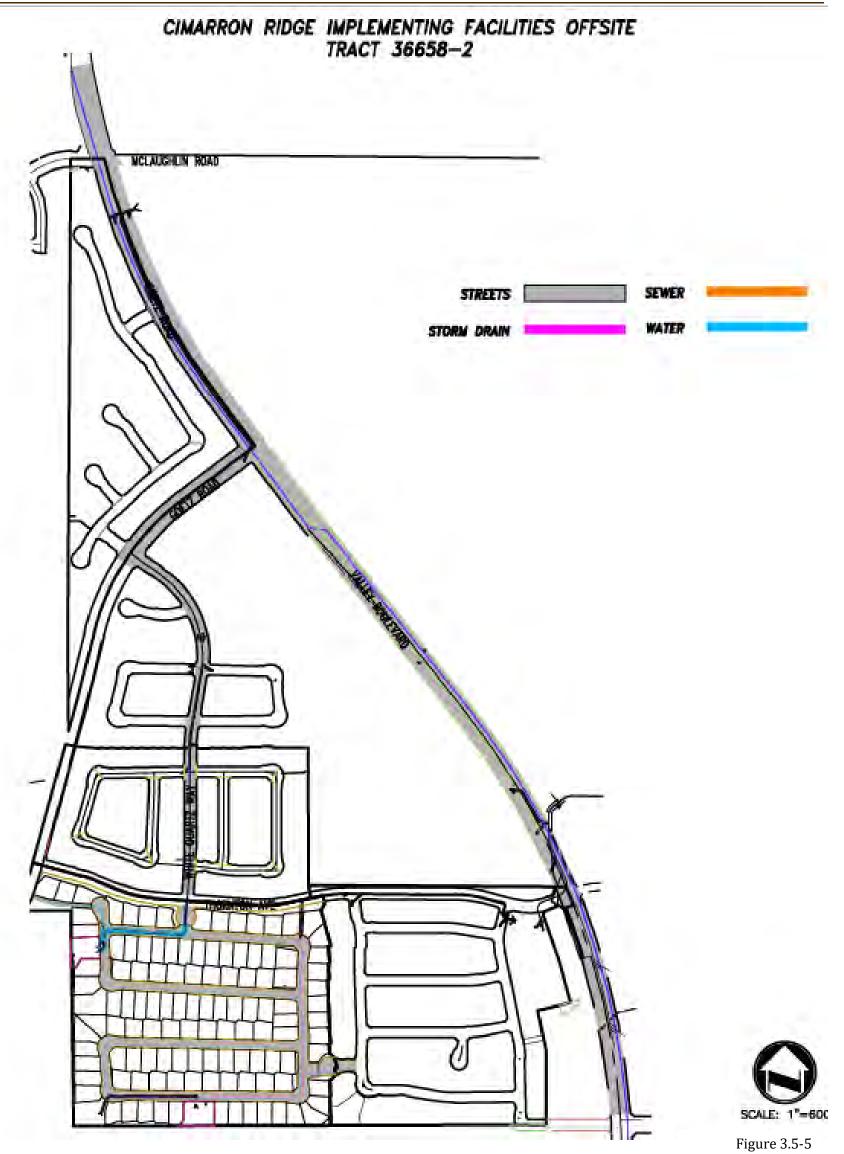
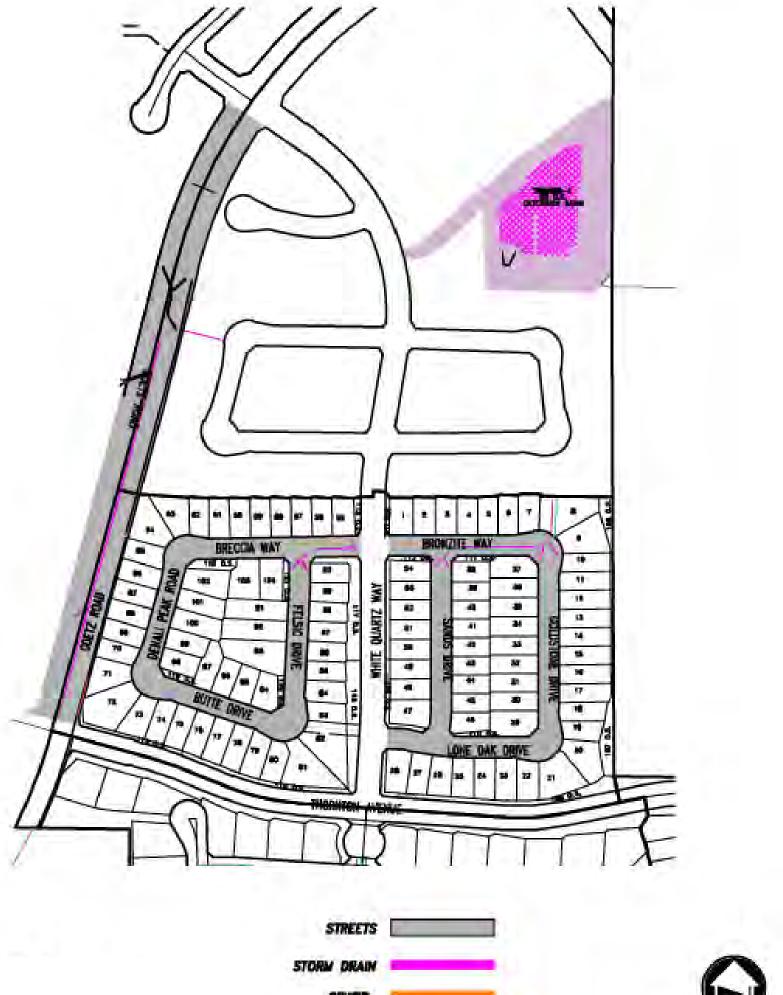


Figure 3.5-4



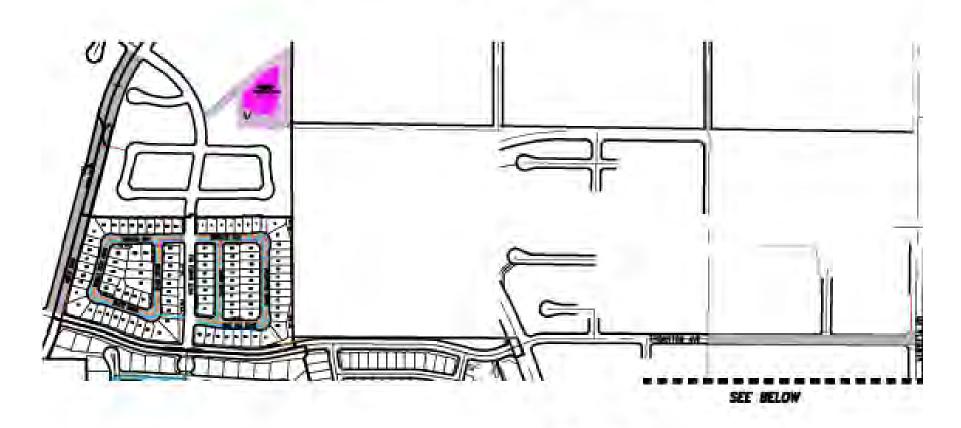


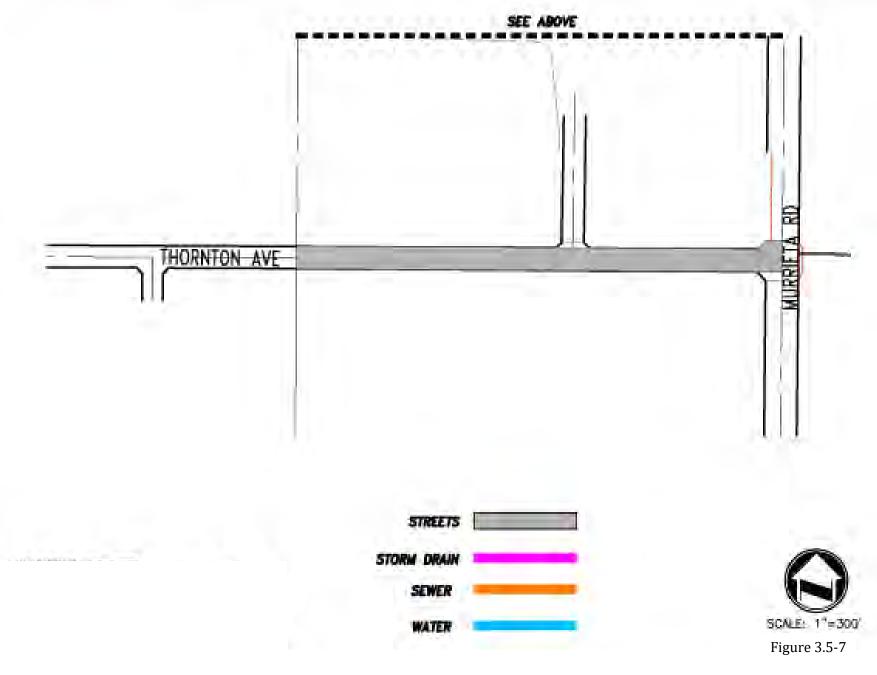




SCALE: 1"=300" Figure 3.5-6









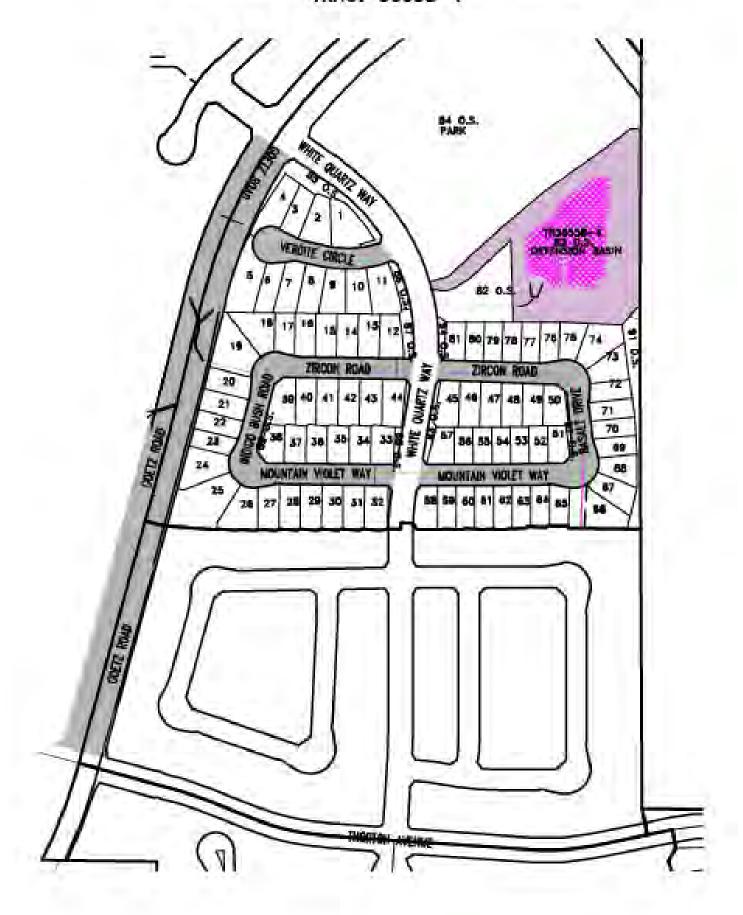






Figure 3.5-8



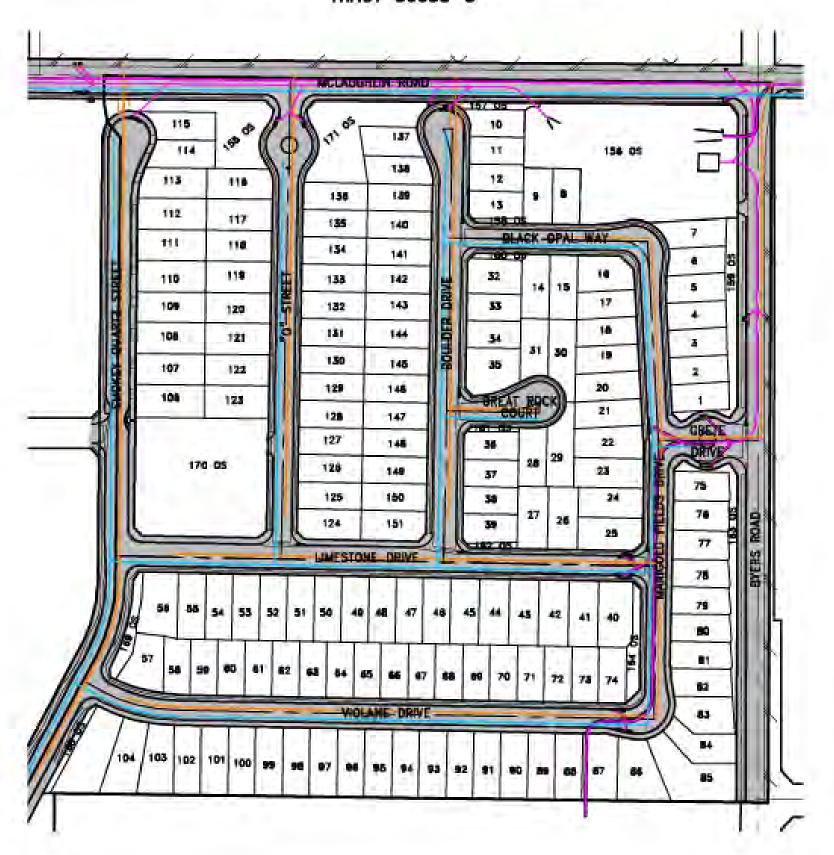




Figure 3.5-9

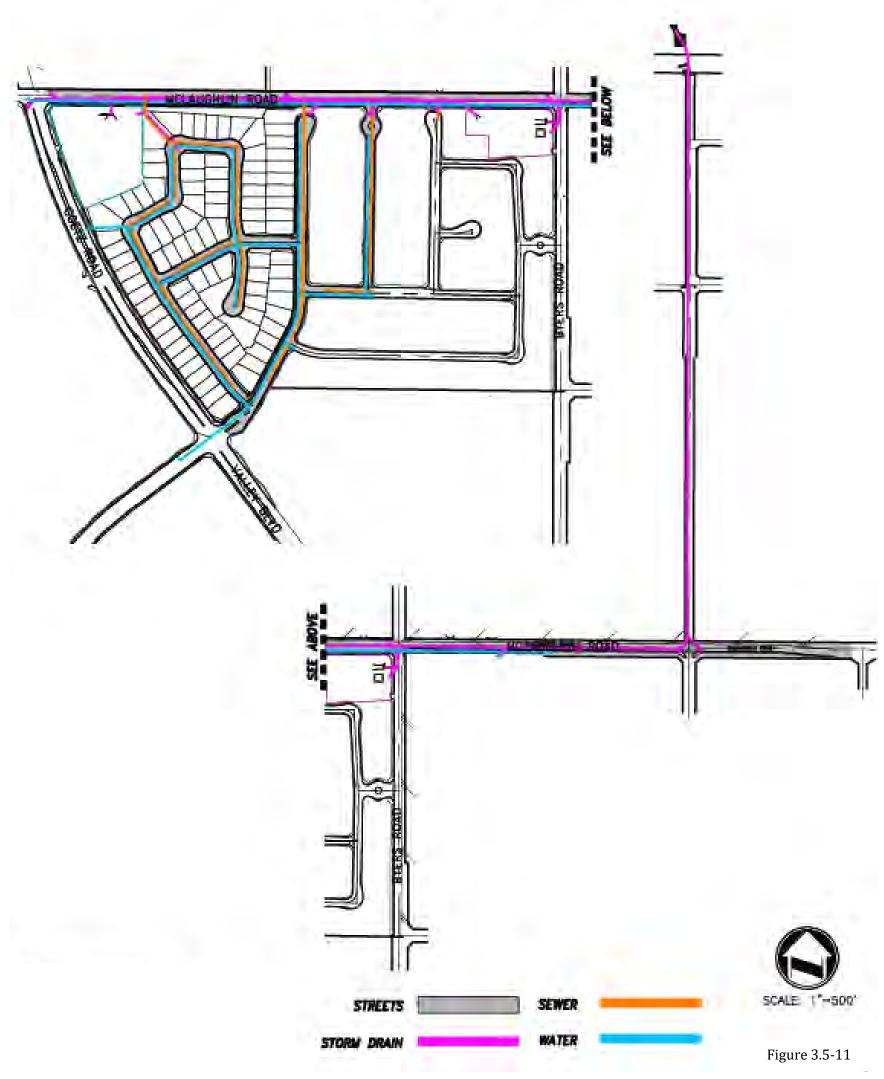






Figure 3.5-10





Implementing Facilities - 10





Implementing Facilities - 11

4.0 DEVELOPMENT STANDARDS Comarion

4.1 Introduction

The primary implementation guidance tool for Cimarron Ridge is this Specific Plan, which establishes the character of the development through the definition of permitted land uses, required infrastructure, development regulations, and design guidelines. The standards and regulations contained in this section, and the Design Guidelines contained in *Chapter 5*, provide the framework upon which all subsequent implementation planning decisions are based, and criteria for determining consistency of site-specific design with the Specific Plan objectives.

It is the purpose of this chapter to serve as the development regulations for Cimarron Ridge. When the Cimarron Ridge Specific Plan and associated change of zone are adopted by ordinance, these regulations and standards will supersede the corresponding Zoning Ordinance of the City. Where the Specific Plan is silent on a development issue, regulation or procedure, or where reference is made to a specific ordinance section, the applicable section(s) of the City Zoning Ordinance shall prevail. Where design guidelines or development standards of the Specific Plan do not agree with the City ordinances, this Specific Plan shall apply.

4.2 Residential Development Standards

Medium Density Residential (MDR) land uses are proposed for Planning Areas 1A, 2, 3, 4A, and 7A. Planning Areas 5A and 6 will be single-family age-restricted developments. There will be a total of 756 homes on 240 acres of land at an average density of 3.1 du/ac. The envisioned housing types would be conventional single-family detached homes with attached garages. The homes will have a variety of floor plans and architectural elevations. Planning Areas 5A and 6 will be single family age restricted developments.

4.2.1 Medium Density Residential (MDR)

MDR is the principal land use proposed for Cimarron Ridge and is the only residential land use classification. The MDR designation is used for the purposes of maintaining consistency with the General Plan Land Use Map. However, as illustrated in **Figure 3.1-1, Conceptual Development Plan,** the residential planning areas are distinguished in this Specific Plan by minimum lot size. The four minimum lot sizes proposed are:

- 5,000 square foot minimum (Planning Areas 1A, 3, 4A and 5A) Grassland District
- 5,500 square foot minimum (Planning Area 6) Inland District
- 6,500 square foot minimum (Planning Area 7A) Southland District
- 10,000 square foot minimum (Planning Area 2) Woodland District

To ensure a logical, orderly, and sensitive development of land uses proposed for Cimarron Ridge, special development criteria and standards have been created for each lot size to address setbacks, pad sizes, lot coverage and encroachments. **Figures 4.1-1** through **4.1-4** illustrate these



concepts and provide information regarding placement of residences within the community. Each figure contains a detail of the typical lot, with a corresponding table that lists specific development standards for that lot size. It is important to note that the illustrations represent possible development patterns based on the detached residential products envisioned for the Cimarron Ridge community; however, other designs that conform to the development standards may also be used.

Finally, while this Specific Plan distinguishes between minimum required lot sizes, the underlying land use designation for each Planning Area regardless of lot size is MDR, as shown in Figure 3.1-2, Land Use Plan. Water quality basins that are shown on the Land Use Plan also have an underlying land use designation of MDR. Therefore, the development standards related to the basins are also discussed here.

Principal Permitted Uses - Medium Density Residential (MDR)

Uses include those listed below when developed in compliance with the purpose and intent of this Specific Plan.

- One-family dwellings
- Parks
- Flood control basins, retention basins and related facilities
- Swimming pools
- Temporary real estate tract offices located within a subdivision to be used for and during the original sale of the subdivision
- Any use that is not specifically listed herein may be considered a principal permitted use or a conditionally permitted use provided that the Community Development Director finds that the proposed use is substantially the same in character and intensity as those listed in this Specific Plan

Accessory Permitted Uses - Medium Density Residential (MDR)

- Utility facilities
- Private recreation facilities
- Recreation centers
- Swimming pools and spas
- Tot lots
- Other accessory uses as determined by the Community Development Director to be substantially compatible with a principal permitted residential use

The development standards for MDR designated areas are listed in **Figures 4.1-1** through **4.1-4**.

Grassland District Development Standards



DEVELOPMENT STANDARD	MEDIUM DENSITY RESIDENTIAL 5,000 SQUARE FOOT MINIMUM
	Lot Dimensions
Minimum lot size	5,000 sq. ft.
Minimum pad size	4,500 sq. ft.
Minimum average width ¹	40'
Minimum average depth ¹	90'
Minimum frontage ²	40'
Minimum frontage on lots fronting knuckles or cul-de-sacs	35'
Flag lots	Flag lots shall meet all lot requirements except that requirement of street frontage. Flag lots shall have an access strip to a street not less than 20 feet wide. In instances where a driveway exceeds 150 feet, then a turnaround area approved by the fire department will be required.
	Setbacks
	ont Setback (from property line)
To living area	15'
To a front entry garage	20'
To a side-in garage	10'
To a patio cover or second story deck	10'
S	ide Setback (from property line)
Minimum interior side yard	5'
Minimum corner side yard ³	10'
R	ear Setback (from property line)
To living area	15'
To California Room ⁴	10'
To a patio cover, second story deck, trellis, or support structure	5'
To a pool and/or pool equipment	5'
a de la commanda de la companione	Walls Fences and Hedges
Maximum height within front yard setback	3'
Maximum height at interior or rear property line	6'
- Managara Medici of Iour property and	Other
Maximum structural height	40'
Maximum lot coverage	65% for single story & 60% for two story
Yard encroachments (uninhabitable architectural features that extend beyond the building face including eaves, chimneys, bay windows, stairways, and other architectural detailing)	2'
Air conditioning units	Air conditioning (AC) units may encroach into the side yard setback, but must provide a 3' clear flat area between the AC unit and the property line wall. AC units shall be placed in the non-gated side yard when applicable.
	ılti -Generational Suite Standards
General Standards	Multi-generational suites are defined as living areas connected to the home structurally an through an entrance from the main home, although a separate exterior door is allowable. Multi-generational suites may include a sleeping area, sitting area, kitchenette and closet.
Zoning Requirements	Multi-generational suites are permitted on all lots, provided that it meets all of the zonin requirements described above.
Additional Standards	 ☑ Single gas, water, and electrical meters are required; ☑ Conformance with the City's parking standards are required (garage conversion prohibited); ☑ Complete kitchen facilities containing a stove, range or oven are prohibited. Alternatively, "kitchenette" may be allowed. A kitchenette may contain a sink, refrigerator and an electrica outlet which may be used for a microwave oven. No 220V outlets for a range or oven shall b provided.; ☑ Incorporate Universal Design into multi-generation floor plan in order to accommodate transitional aging of seniors and have any multi-generation floor plan certified by a Universal Design Certified Professional; ☑ Unit must be integrated (connected) to the main unit.

Keymap

Note: Location of Planning Areas with 5,000 square Foot minimum lot size.



50'x 100' lot size Note: For corner lots, minimum 10'building setback is required on the corner-side.

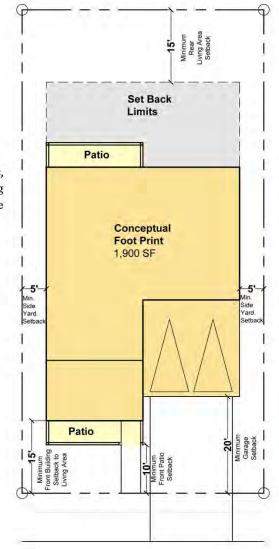


Figure 4.1-1

Grassland **District** Development **Standards**

¹ See Appendix A for guidelines to determine the average.

² The length of the defined front lot line measured at the street right-of-way.

³ In instances where a corner lot is located adjacent to a landscaped area, and the landscaped area separates the residential lot from the right-of-way, then the landscape area may be counted towards the setback requirement.

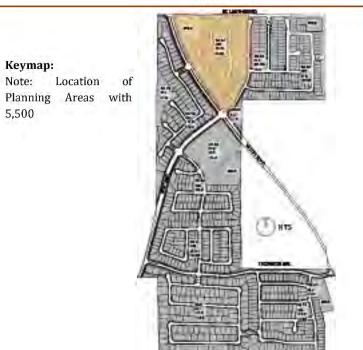
⁴ California Room is defined as a built-in covered patio incorporated into the house design and roof line. California Rooms are located at the rear of the home, are open to the outdoors, and may be enclosed on up to three sides.

Inland District Development Standards



DEVELOPMENT STANDARD	MEDIUM DENSITY RESIDENTIAL 5,500 SQUARE FOOT MINIMUM
	Lot Dimensions
Minimum lot size	5,500 sq. ft.
Minimum pad size	4,950 sq. ft.
Minimum average width ¹	45'
Minimum average depth ¹	90'
Minimum frontage ²	45'
Minimum frontage on lots fronting knuckles or cul-de-sacs	35'
Flag lots	Flag lots shall meet all lot requirements except that requirement of street frontage. Flag lots shall have an access strip to a street not less than 20 feet wide. In instances where a driveway exceeds 150 feet, then a turnaround area approved by the fire department will be required.
	Setbacks
	Front Setback (from property line)
To living area	15'
To a front entry garage	20'
To a side-in garage	10'
To a patio cover or second story deck	10'
	Side Setback (from property line)
Minimum interior side yard	5'
Minimum corner side yard ³	10'
	Rear Setback (from property line)
To living area	15'
To California Room ⁴	10'
To a patio cover, second story deck, trellis, or support structure	5'
To a pool and/or pool equipment	5'
	Walls Fences and Hedges
Maximum height within front yard setback	3'
Maximum height at interior or rear property line	6'
	Other
Maximum structural height	40'
Maximum lot coverage	65% for single story & 60% for two story
Yard encroachments (uninhabitable architectural features that extend beyond the building face including eaves, chimneys, bay windows, stairways, and other architectural detailing)	2'
Air conditioning units	Air conditioning (AC) units may encroach into the side yard setback, but must provide a 3' clear flat area between the AC unit and the property line wall. AC units shall be placed in the non-gated side yard when applicable.
	Multi-Generational Suite Standards
General Standards	Multi-generational suites are defined as living areas connected to the home structurally and through an entrance from the main home, although a separate exterior door is allowable. Multi-generationa suites may include a sleeping area, sitting area, kitchenette and closet.
Zoning Requirements	Multi-generational suites are permitted on all lots, provided that it meets all of the zoning requirements described above.
Additional Standards	 Single gas, water, and electrical meters are required; Conformance with the City's parking standards are required (garage conversions prohibited); Complete kitchen facilities containing a stove, range or oven are prohibited. Alternatively, a "kitchenette" may be allowed. A kitchenette may contain a sink, refrigerator and an electrical outlet which may be used for a microwave oven. No 220V outlets for a range or oven shall be provided.; Incorporate Universal Design into multi-generation floor plan in order to accommodate transitional aging of seniors and have any multi-generation floor plan certified by a Universal Design Certified Professional; Unit must be integrated (connected) to the main unit.

¹ See Appendix A for guidelines to determine the average.



55 'x 100' lot size Note: For corner minimum lots, 10'building setback is required on the corner-side.

Keymap: Note:

5,500

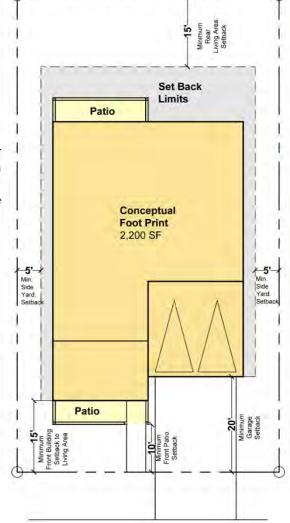


Figure 4.1-2

Inland District Development Standards

² The length of the defined front lot line measured at the street right-of-way.

³ In instances where a corner lot is located adjacent to a landscaped area, and the landscaped area separates the residential lot from the right-of-way, then the landscape area may be counted towards the setback requirement.

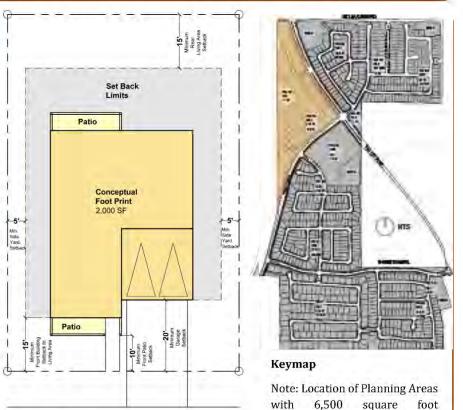
⁴ California Room is defined as a built-in covered patio incorporated into the house design and roof line. California Rooms are located at the rear of the home, are open to the outdoors, and may be enclosed on up to three sides.

Southland District Development Standards



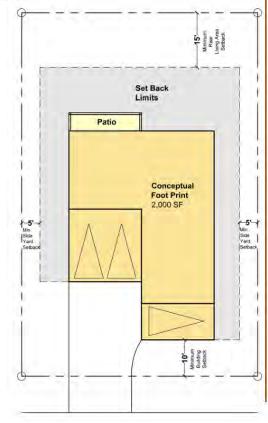
Lot Dimensions 6,500 sq. ft. 5,550 sq. ft. 60' 90' 55' 35' Flag lots shall meet all lot requirements except that requirement of street frontage. Flag lots shall have an access strip to a street not less than 20 feet wide. In instances where a driveway exceeds 150 feet, then a turnaround area approved by the fire department will be required. Setbacks etback (from property line) 15' 20' 10' tback (from property line) 5' 10' tback (from property line) 15'
5,550 sq. ft. 50' 90' 55' 35' Flag lots shall meet all lot requirements except that requirement of street frontage. Flag lots shall have an access strip to a street not less than 20 feet wide. In instances where a driveway exceeds 150 feet, then a turnaround area approved by the fire department will be required. Setbacks Etback (from property line) 15' 10' Etback (from property line) 5' 10' Etback (from property line) 5' 10' Etback (from property line)
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15' 20' 10' tback (from property line) 5' 10' tback (from property line) 55'
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tback (from property line) 5' 10' tback (from property line) 15'
5' 10' tback (from property line) 15'
10' tback (from property line) 15'
tback (from property line) 15'
15'
10'
5'
5'
Ils Fences and Hedges
3'
6'
Other
40'
65% for single story & 60% for two story
2'
Air conditioning (AC) units may encroach into the side yard setback, but must provide a 3' clear flat area between the AC unit and the property line wall. AC units shall be placed in the nongated side yard when applicable.
nerational Suite Standards
Multi-generational suites are defined as living areas connected to the home structurally and through an entrance from the main home, although a separate exterior door is allowable. Multi-generational suites may include a sleeping area, sitting area, kitchenette and closet.
Multi-generational suites are permitted on all lots, provided that it meets all of the zoning requirements described above.
Single gas, water, and electrical meters are required;
 Conformance with the City's parking standards are required (garage conversions prohibited; Complete kitchen facilities containing a stove, range or oven are prohibited. Alternatively, a "kitchenette" may be allowed. A kitchenette may contain a sink, refrigerator and an electrical outlet which may be used for a microwave oven. No 220V outlets for a range or oven shall be provided.; Incorporate Universal Design into multi-generation floor plan in order to accommodate transitional aging of seniors and have any multi-generation floor plan certified by a Universal Design Certified Professional;
462 Afl 81 N N N

 $^{^{\}mathrm{1}}$ See Appendix A for guidelines to determine the average.



65'x 100' lot size

Note: For corner lots, minimum 10'building setback is required on the corner-side.



minimum lot size.

Figure 4.1-3

Southland District Development Standards

² The length of the defined front lot line measured at the street right-of-way.

³ In instances where a corner lot is located adjacent to a landscaped area, and the landscaped area separates the residential lot from the right-of-way, then the landscape area may be counted towards the setback requirement.

⁴ California Room is defined as a built-in covered patio incorporated into the house design and roof line. California Rooms are located at the rear of the home, are open to the outdoors, and may be enclosed on up to three sides.

Woodland District Development Standards



DEVELOPMENT STANDARD	MEDIUM DENSITY RESIDENTIAL 10,000 SQUARE FOOT MINIMUM
	Lot Dimensions
Minimum lot size	10,000 sq. ft.
Minimum pad size	6,500 sq. ft.
Minimum average width ¹	55'
Minimum average depth ¹	100'
Minimum frontage ²	40'
Minimum frontage on lots fronting knuckles or cul-de-sacs	35'
Flag lots	Flag lots shall meet all lot requirements except that requirement of street frontage. Flag lots shall have an access strip to a street not less than 20 feet wide. In instances where a driveway exceeds 150 feet, then a turnaround area approved by the fire department will be required.
	Setbacks
	Front Setback (from property line)
To living area	15'
To a front entry garage	20'
To a side-in garage	10'
To a patio cover or second story deck	10'
	Side Setback (from property line)
Minimum interior side yard	5'
Minimum corner side yard ³	10'
	Rear Setback (from property line)
To living area	15'
To California Room ⁴	10'
To a patio cover, second story deck, trellis, or support structure	5'
To a pool and/or pool equipment	5'
	Walls Fences and Hedges
Maximum height within front yard setback	3'
Maximum height at interior or rear property line	6'
	Other
Maximum structural height	40'
Maximum lot coverage	65% for single story & 60% for two story
Yard encroachments (uninhabitable architectural features that extend beyond the building face including eaves, chimneys, bay windows, stairways, and other architectural detailing)	2'
Air conditioning units	Air conditioning (AC) units may encroach into the side yard setback, but must provide a 3' clear flat area between the AC unit and the property line wall. AC units shall be placed in the non-gated side yard when applicable.
	Multi-Generational Suite Standards
General Standards	Multi-generational suites are defined as living areas connected to the home structurally and through an entrance from the main home, although a separate exterior door is allowable. Multi-generationa suites may include a sleeping area, sitting area, kitchenette and closet.
Zoning Requirements	Multi-generational suites are permitted on all lots, provided that it meets all of the zoning requirements described above.
Additional Standards	Single gas, water, and electrical meters are required;
	 Conformance with the City's parking standards are required (garage conversions prohibited); Complete kitchen facilities containing a stove, range or oven are prohibited. Alternatively, "kitchenette" may be allowed. A kitchenette may contain a sink, refrigerator and an electrica outlet which may be used for a microwave oven. No 220V outlets for a range or oven shall be provided; Incorporate Universal Design into multi-generation floor plan in order to accommodate.
	transitional aging of seniors and have any multi-generation floor plan certified by a Universa Design Certified Professional; • Unit must be integrated (connected) to the main unit.

¹ See Appendix A for guidelines to determine the average.

Keymap

80' x 125' lot size

minimum

corner-side.

Note: Location of Planning Areas with 10,000 square foot minimum lot size.



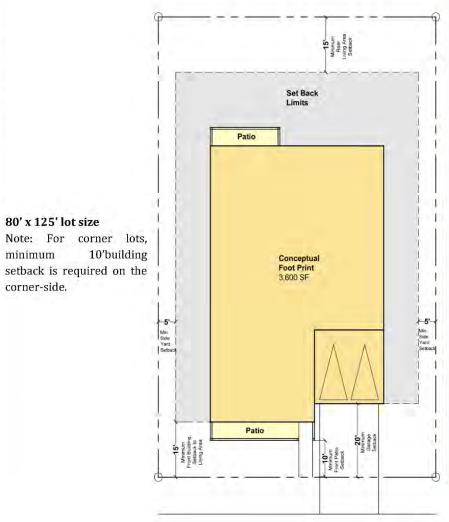


Figure 4.1-4

Woodland District Development Standards

² The length of the defined front lot line measured at the street right-of-way.

³ In instances where a corner lot is located adjacent to a landscaped area, and the landscaped area separates the residential lot from the right-of-way, then the landscape area may be counted towards the setback requirement.

⁴ California Room is defined as a built-in covered patio incorporated into the house design and roof line. California Rooms are located at the rear of the home, are open to the outdoors, and may be enclosed on up to three sides.



4.3 Open Space and Recreation Standards

4.3.1 Open Space Recreation

As shown in **Figure 3.1-2, Land Use Plan,** Cimarron Ridge contains four parks totaling 13.8 acres. The four parks include a 0.2-acre pocket park in Planning Area 1B, a 10.9-gross acre multipurpose park in Planning Area 4B, a private 1.5-acre recreation center, and a 1.2-acre pickleball facility in Planning Area 5B. The pocket park is intended to serve the adjacent neighborhood and is planned to include an open lawn area for picnic and passive uses, as well as a tot lot with a small play structure. The 10.9-gross acre multipurpose park is planned to include a range of activities such as soccer, baseball and sport fields, walking trails, dining areas, dog park, and tot lots as well as informal open space areas and recreational areas.

Principal Permitted Uses - Open Space Recreation

Uses include those listed below when developed in compliance with the purpose and intent of this Specific Plan.

- Public or private parks
- Public playgrounds
- Pool and water features
- Dog park
- Restrooms
- Flood control basins, detention basins, retention basins and related facilities
- Athletic fields
- Pickleball courts

Accessory Permitted Uses - Open Space Recreation

- Parking lots, only for the above permitted uses
- Utility facilities
- Recreation facilities
- Trails
- Shade structures
- Other accessory uses as determined by the Community Development Director to be substantially compatible with a principal permitted open space recreation/park use



Required Amenities - Pocket Parks

At a minimum, the pocket park in Planning Area 1B shall include the following amenities:

- Shade tree plantings and rolling turf areas
- Children's play areas with playground equipment and/or other similar features and equipment
- Picnic areas that are structurally shaded

Required Amenities - Multipurpose Park

At a minimum, the multipurpose park in Planning Area 4B shall include the following amenities:

- Kthletic field(s) with necessary facilities for each sport (in-place or moveable soccer goals, fencing, bench areas, etc.). The landscaping and grading around athletic areas should incorporate berming and screening, and planting of shrubs and groundcover when adjacent to roadways to limit the potential for balls to escape onto the roadway.
- Play area(s)
- Walkway(s)
- Picnic area(s) with at least 50% of the tables/picnic areas structurally shaded
- On-site parking
- Shade tree plantings and rolling turf areas
- Restrooms
- Dog park

4.3.2 Open Space Conservation

As shown in **Figure 3.1-2, Land Use Plan** approximately 3.1 acres in Planning Area 7B is designated as Open Space Conservation. This designation is not intended to imply that this area serves as a habitat conservation area. Rather, the Open Space Conservation (OS-C) area is not considered suitable for development and will therefore remain in natural habitat.

Principal Permitted Uses - Open Space Conservation

Uses include those listed below when developed in compliance with the purpose and intent of this Specific Plan.

- Unrestricted open space
- Utility facilities



Accessory Permitted Uses - Open Space Conservation

- Trails
- Drainage channels
- Shade structures
- Other accessory uses as determined by the Community Development Director to be substantially compatible with a principal permitted open space conservation use

4.3.3 Project Wide Development Standards

Project-wide development standards can be found in each sub-chapter of *Chapter 3.0, Community Development Plan*. These Project-wide development standards are applicable to each Planning Area. For Project-wide development standards, please refer to the following chapters:

- Chapter 3.1 Land Use Plan
- Chapter 3.2-Circulation Plan
- Chapter 3.3 Public Facilities Plan
- Chapter 3.4 Grading Plan
- Chapter 3.5 Phasing Plan

Chapter 5.0 discusses landscape and architectural design guidelines that will govern the design character of the community. However, it is important to note the difference between standards and guidelines included herein. Chapter 3.0, Community Development Plan and Chapter 4.0, Development Standards establish a required level of quality or attainment. In contrast, Chapter 5.0, Design Guidelines provide general Project-wide guidelines and are not mandatory. The purpose of the Design Guidelines are intended to provide criteria for design, while allowing flexibility for architects, landscape architects, developers, and builders. These Design Guidelines are discussed in greater detail in the following chapter.

5.0 DESIGN GUIDELINES



5.0.1 Introduction

The following Design Guidelines are intended to provide a general framework for the physical design of the Cimarron Ridge Specific Plan. The purpose of these Design Guidelines is to establish planning and architectural themes and to promote aesthetic quality along with community diversity.

These guidelines are intended to provide criteria for design, while allowing flexibility for architects, landscape architects, developers, builders and others involved in the design of community elements. Variation and customization within the context of the guidelines by a builder is encouraged to achieve individually distinctive neighborhoods complemented by recreational amenities and neighborhood linkages. To that end, these guidelines establish a design framework to help the City of Menifee staff, decision makers, citizens, design professionals, and developers understand and implement this Project. The pictures presented in this section are intended to convey the general design purpose of the Design Guidelines and are not intended to require the specific design style depicted. Thus, these guidelines identify actions or outcomes that are encouraged but not mandatory.

The following Design Guidelines are divided into two chapters: 5.1 Landscape Design Guidelines and 5.2 Architectural Design Guidelines.

5.1 LANDSCAPE DESIGN GUIDELINES



5.1.1 Purpose

The Landscape Design Guidelines for Cimarron Ridge are intended to establish thematic and visual elements within the community. As illustrated in **Figure 5.1-1, Landscape Theme Plan**, careful attention has been given to set the overall character of the Cimarron Ridge community through a unified theme of plant materials and inert landscape materials. Within this unified theme are planned subtle differences in the landscape elements for smaller sub-communities that create individual neighborhood units.

As described in greater detail below, these Landscape Design Guidelines are composed of seven major thematic landscape elements. Thematic elements are generally considered major Project improvements that occur at the community or neighborhood level, and which assist in establishing the overall design theme for Cimarron Ridge. The thematic elements include:

- Community Theme Concept
- Plant Palette
- Streetscapes
- Entry Monumentation
- Open Space and Recreation
- Walls and Fences
- Lighting

These thematic landscape elements occur throughout the community and unite Cimarron Ridge under a common design theme. General design guidelines and design criteria for the community landscape elements are described throughout this chapter.

The Landscape Design Guidelines will also comply with the landscaping requirements stated in the Cimarron Ridge Fire Protection Plan approved in July 2023.

Finally, these Landscape Design Guidelines are provided as a resource to those involved in the design and implementation of this Specific Plan, and—illustrative in nature—are meant to be flexible and respond to changes in taste and environmental concerns over time.5.1.2 Community Theme Concept

As illustrated in **Figure 5.1-1, Landscape Theme Plan,** these Landscape Design Guidelines divide Cimarron Ridge into four landscape districts, each possessing a slight distinct landscape character while still maintaining uniformity and consistency to the overall landscape theme vision of the community. The four landscape districts follow the four planning area categories that are used throughout this Specific Plan (i.e., 5,000, 5,500, 6,500, and 10,000 square foot minimum lot sizes). The rationale for having the four landscape districts is to provide diversity



within the community and to distinguish the individual Planning Areas from one another by accenting the landscape through tree variations commonly seen in inland, grassland, southland and woodland planting communities of California. While building neighborhood identity through district tree accenting will be an important feature in the development, the identity of the Project will be defined by important features found consistently throughout all of the designed open spaces. Ornamental grasses in mass groupings, native and drought-tolerant plant material, and unique accent plant variety plantings will positively characterize the landscape at Cimarron Ridge. These Landscape Design Guidelines will ensure that a cohesive landscape fabric will be created to unify the overall community at all levels of development. The landscape plant palette, which is discussed in greater detail below (see **Figure 5.1-2 Landscape Plant Palette**), lists the recommended species to be used in the specific areas described in the Landscape Guidelines.

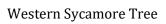
As described below, each landscape district is accented by trees commonly found in the California regions that the district is named after. The recommended trees for each district are to be planted in the street rights-of-way within each planning area. The selected plant species are all suitable for this climate and region and are on the County of Riverside California Friendly Plant List. The four landscape districts are as follows:

- **Inland District** Lemon bottlebrush, Brisbane box, and mimosa trees are commonly found in the inland areas of Southern California and will be used to accent the Inland District. These trees are known to be dramatic during blooming periods, free forming in growth, and extremely colorful. They also have a soft dry appearance that creates a delicate focal point.
- **Grassland District** Western sycamore, African sumac and cork oak are commonly found in the grassland areas adjacent to foothills and rivers throughout California and will be used to accent the Grassland District. These trees are considered to be more sculptural in appearance and have an organic form to their shape. In the landscape, these trees create subtle focal points which help identify the importance of the place. These trees will give the streetscape a unique identity.
- **Southland District** Strawberry trees, Southern magnolia trees and golden rain trees are traditionally found in urban landscapes of traditional Southland basins and will be used in the Southland District. Unique to these trees is the ornamental appearance, formal shape that the tree grows into, and the symmetrical structure that the trees take. These trees take on an elegant presentation and easily draw focal attention when they are the within the streetscapes.
- **Woodland District** London plane, American sweet gum and coast live oak are commonly found in larger areas that provide enough open space for them to tower over smaller plant material. These trees are considered to be more monumental in appearance and have more of a structural formal shape. In the landscape, these trees create foundational focal points which help carry a larger scale appearance. These trees will provide the district streetscape with a classical large tree street appearance.





Bottle Tree











Grassland District

Inland
District
-Drammatic
-Free Forming
-Colorful

-Native

-Organic

-Sculptural



Southland District

-Ornamental

-Formal

-Structured



Woodland District

-Native

-Hardy

-Monumental

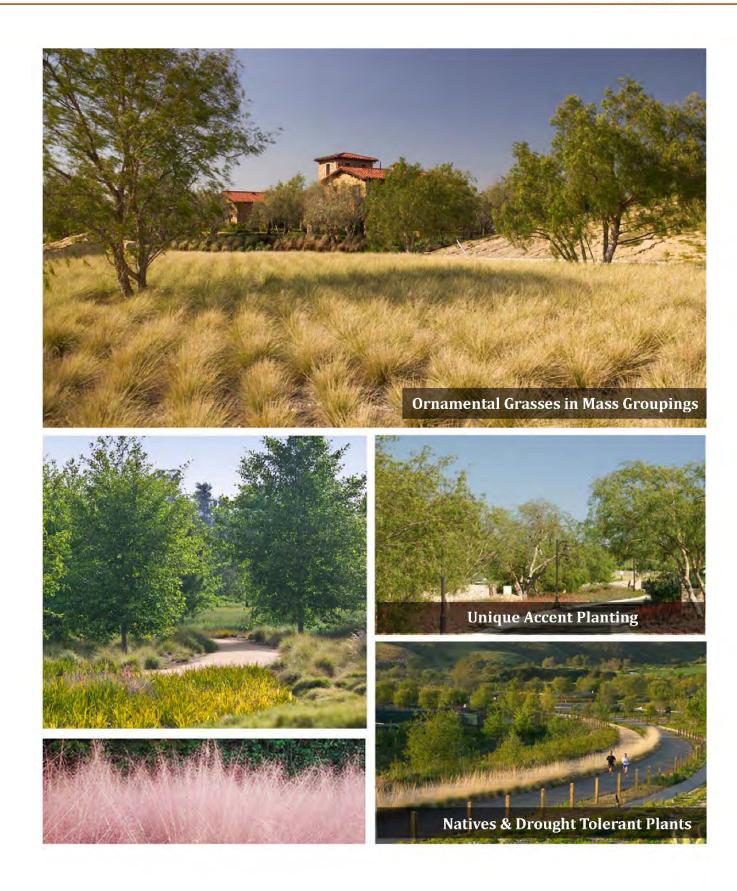


Figure 5.1-1A

Landscape
Theme Plan
Districts







Landscape Theme Plan Community Wide

Figure 5.1-1B



5.1.3 Plant Palette

It is the intent of these Landscape Design Guidelines to provide flexibility and diversity in plant material selection, while maintaining a selected palette to give greater unity and thematic identity to the community.

The plant material lists have been selected for their appropriateness to the Project theme, climactic conditions, soil, and concern for maintenance. The selected plant palette is particularly suitable to the area; they tolerate a wide temperature range, have low water consumption requirements, and withstand local wind conditions.

These Landscape Design Guidelines have been developed pursuant to City Ordinance No. 2009-061. The selected plant species are on the County of Riverside California Friendly Plant List. Wherever possible, overall plant materials shall have compatible drought-resistant characteristics. Irrigation programming can then be designed to minimize water application for the entire landscape setting.

Plant material guidelines provide guidance as to the proper plant materials for community setting such as entries, streetscapes, and open space areas. The landscaping plan for Cimarron

for Ridge calls compatible plant palette of trees, shrubs, grasses, groundcovers and accents and a specialized treatment application for each community element (i.e. defined trees within the landscape district). Figure 5.1-2, Landscape Plant Palette provides a list of the recommended plant materials within the Cimarron Ridge community.





TYPE	BOTANICAL NAME	COMMON NAME	PKWAYI MEDIAN	BUFFER	ACCENT /ENTRY	PARKS & OPEN SPACE	BASINS/ BIO- SWALE	DISTRICT	FRONT YARD
	Albizia julibrissin	Mimosa	Х		Х	Х		Inland	
	Arbutus unedo	Strawberry Tree	Х	X	Х			Southland	Х
	Brachychiton populneus	Bottle Tree	Х	Х	Х	Х	Х	All	
	Callistemon Citronis	Lemon Bottlebrush	Х	Х	Х	Х	Х	Inland	Х
	Cassia leptophylla	Gold Medallion Tree	х		х	X		Inland	
	Fraxinus velutina	Arizona Ash	Х	Х	х	X	х	All	
	Ginko Biloba	Maidenhair Tree	Х	х	х			Southland	
	Koelruteria paniculata	Golden Rain Tree	Х	X				Southland	X
	Liquidambar styraciflua	American Sweet Gum	Х	Х	х	Х	Х	Woodland	Х
	Magnolia Grandiflora	Southern Magnolia	Х	Х	Х	Х	Х	Southland	
T	Melaleuca linarifolia	Flax Leaf Paper Bark	Х	X	Х	X		All	
R	Olea europaea 'Swan Hill'	Fruitless Olive Tree	Х	Х	х			All	
E	Pinus Eldarica	Afghan Pine	Х	Х	Х	X	Х	All	
E	Platanus racemosa	California Sycamore		Х		X	х	Grassland	
S	Platanus x. acertolia	London Plane Tree	Х	Х				Woodland	Х
	Podocarpus Gracilior	Fern Pine	Х	Х		Х		All	
	Populus fremontii 'Nevada'	Western Cottonwood		X		X	х	Grassland	
	Prosopis chilensis	Thomless Chilean Mesquite	Х	Х	-	X		Inland	
	Prunus caroliniana	Carolina Laurel Cherry	Х	Х				All	
	Quercus agrifolia	Coast Live Oak		X		X		Woodland	
	Quercus suber	Cork Oak	Х	Х				Grassland	
	Rhus Lancea	African Sumac	Х	Х		X	Х	Grassland	х
	Schinus Molle	California Pepper Tree				X	Х	All	
	Sambucus mexicana	Mexican eldeberry				3 - 4	Х	All	
	Tristania Conferta	Brisban Box Tree	Х	Х	Х			Inland	X
	Ulmus parvifolia	Evergreen Elm	Х	Х			х	All	

Түре	BOTANICAL NAME	COMMON NAME	Parkway /Median	BUFFER	ACCENT /ENTRY	PARKS & OPEN SPACE	BASINSI BIO- SWALE	DISTRIC
_	Abelia 'Edward Goucher'	Glossy Abelia	х	х	х	Х	х	All
	Agapanthus Spp.	Lily of the Nile	Х		х			All
	Arctostaphylos spp.	Manzanita	х	х	х	х	×	All
	Baccharis pilularis	Coyote Brush		х		х	х	All
	Buxus japonica	Japanese Boxwood	X		х	х		All
	Caesalpinea pulchemma	Red Bird of Paradise	X	х		Х		All
	Callistemon viminalis 'Little Jo	Little John Bottlebrush	X	х	х		×	All
	Ceanothus spp.	Ceanothus	Х	х		х		All
	Lavendula Spp.	Lavender	X	Х	Х	Х		All
	Cistus spp.	Rockrose	X	х	X	Х	X	All
	Corida boissieri	Texas Olive	Х	х		Х		All
	Dietes Bicolor	Fortnight lily	Х	х	Х	Х	Х	All
	Dodonaea viscosa 'Purpurea'	Hop Bush	х	х	х	х	×	All
	Elaeagnus spp.	Elaeagnus	х	х		х	×	All
	Escalonia compacta	Compact Escalonia	X	Х		Х	Х	All
	Euonymus japonicus spp.	Euonymous	X	Х	х	Х		All
	Grevellia 'Noellii'	Noel's Grevellia		х		х	Х	All
S	Hemerocallis Spp.	Daylily	X	х	X	Х		All
н	Hetermoles arbutifilia	Toyon	Х	х		х	X	All
R	Lantana Camera	Lantana	Х	Х		Х		All
U	Rosa Spp.	Iceberg Rose	X	х	Х	Х		All
	Leucophyllum species	Texas Ranger	Х	Х	х	Х	х	All
B	Ligustrium japonica 'Texana'	Texas Privet	Х	Х		Х	Х	All
S	Myrtus communis compacta	Compact Myrtle	X	х	X	X		All
	Leonotis leonurus	Lion's Tail	Х	х	x	х	×	All
	Nerium oleander 'Petite Pink'	Petite Pink Oleander	Х	Х	Х	X	Х	All
	Persovskia atriplicifolia	Russian Sage	Х	Х	Х	Х	Х	All
	Photinia x. fraseri	Fraser's Photinia	Х	х	X	X	х	All
	Pittosporum Tobira	Mock Orange	Х	Х				All
	Echium fastuosum	Pride of Madeira		Х		X	X	All
	Rhaphiolepis indica spp	Indian Hawthon	Х	Х	Х	Х	Х	All
	Rhus Ovata	Sugar Bush		Х		X		All
	Rosa Banksiae	Lady Banks' Rose		Х		Х	X	All
	Salvia Cleviandia	Cleveland Sage	Х	х		X	X	All
	Salvia greggii	Autumn Sage	X	Х	X	Х	X	All
	Salvia Leucantha	Mexican Sage	X	Х	X	Х	X	All
	Euryops pectinatus	Shrub Daisy		Х		Х	Х	All
	Tecoma Stans	Yellow Bells	X	Х	X	Х	x	All
	Teucrium fruticans	Bush Germander	Х	Х	Х			All
	Tulbaghia violacea	Society Garlic	Х		Х			All
	Xylosma congestum	Shiny Xylosma	X	Х		Х	Х	All

Туре	BOTANICAL NAME	COMMON NAME	Parkway /Median	BUFFER	ACCENT /ENTRY	PARKS & OPEN SPACE	BASINS/ BIO- SWALE	DISTRICT
	Calamagrostis x 'Karl Foerster'	Feather Reed Grass	X	X	х	Х	х	All
	Chondropetalum	Cape Rush			Х		х	All
	Carex testateca	New Zealand Sedge					Х	All
G	Carex pansa	Dune Sedge					Х	All
R	Festuca glauca	Blue Fescue	Х	Х	Х	Х	Х	All
A	Festuca mairei	Maire's Fescue	х	Х		Х	х	All
s	Helictotrichon sempervirens	Blue Oat Grass	Х	X	Х	Х		All
S	Iris douglasiana	Douglas Iris	Х	X	Х			All
	Juncus	Rush				Х	Х	All
E	Leymus condensatus Canyon Parce'	Giant Wild Rye					Х	All
S	Leymus triticaldes	Creeping Wild Rye	-				x	All
	Liriope Muscari	Big Lily Turf	Х	X		Х	Х	All
	Miscanthus sinensis	Silver grass	Х	X		Х	Х	All
	Miscanthus transmorrisonensis	Evergreen Miscanthus	х	х	Х	X	Х	All
	Muhlenbergia Rigens	Deer Grass	X	X	х	Х	х	All
	Mulenbergia lindheimeri	Lindheimer's muhly	Х	Х	Х	Х	х	All
	Nassella tenuissima	Mexican Feather Grass	Х	X				All
	Stipa gigantea	Giant Feather Grass	Х	Х				All
	Sisyrinchium californicum	Golden Eyed Grass					Х	All

Туре	BOTANICAL NAME	COMMON NAME	Parkway /Median	BUFFER	ACCENT /ENTRY	PARKS & OPEN SPACE	BASINS/ BIO- SWALE	DISTRICT
G	Rosmarinus officinalis prostratus	Prostrate Rosemary	х	х	х	х	х	All
R	Baccaris pilularis	Coyote Brush	X	Х	Х	Х	Х	All
U	Coprosma kirki	Coprosma	X	х	Х	Х		All
N	Cistus Salvifolius	Sageleaf Rockrose	X	Х	Х	Х	Х	All
C	Lonicera Japonica Halliana	Hall's Honeysuckle	X	х	х	x	x	All
0	Dalea Greggii	Trailing Indigo Bush	Х	Х		X		All
V	Lantana montevidensis	Trailing Lantana	X	Х		Х		All
R	Myoporum parvifolium	Prostrate Myoporum		Х		Х	Х	All
s	Trachelospermem jasminoides	Star Jasmine	x		x	x		All
	Senecio mandraliscae	Blue Chalk Sticks	X		Х	X		All

Туре	BOTANICAL NAME	COMMON NAME	Parkway /Median	BUFFER	ACCENT /ENTRY	PARKS & OPEN SPACE	BASINS/ BIO- SWALE	DISTRICT
	Agave americana	Century plant		Х	Х	X		All
A	Agave americana 'Mediopicta Alba'	Varigated Centry Plant	х		х			All
c	Agave parryi	Artichoke agave	1		Х			All
c	Agave vilmoriniana	Octopus agave	Х	Х	х	х		All
E	Aloe striata	Coral Aloe	Х		х	х		All
N	Anigozanthos Spp.	Kangaroo Paw	Х	Х	Х	Х		All
T	Dasylirion wheeleri	Desert Spoon		Х	Х	х		All
S	Kniphofia uvaria	Red Hot Poker	Х		х			All
	Hemerocallis Hybrids	Daylily	Х	Х	х	х		All
	Phormium Spp.	New Zealand Flax	Х	X	х	х		All



Platanus x acerifolia London Plane Tree



Ulmus parvifolia Chinese Elm



Mulenbergia rigens Deer Grass



Calamagrostis x acutiflora Karl Forester's Feather Reed



Helictotrichon sempervirens Blue Oat Grass



Raphiolepis indica 'Clara' Indian Hawthorn



Arctostaphylos Manzanita 'Dr. Hurd' Dr. Hurd Manzanita



Lavandula spp. Lavender



Anigozanthos hybrids Dwarf Kangaroo Paw



Orchid Rockros



Leucophyllum Frutescens 'Compacta' Compact Texas Ranger



Perovskia atriplicifolia Russian Sage



Salvia gregii Autumn Sage



Salvia Leucantha 'Santa Barbara' Mexican Bush Sage

Figure 5.1-2 Landscape

Plant Palette



5.1.4 Landscape Design Standards

These Landscape Design Guidelines are intended to establish thematic and visual elements within the community. Careful attention has been given to set the overall character of Cimarron Ridge through a unified theme of plant materials and inert landscape materials. These Landscape Design Guidelines are provided as a resource to those involved in the design and implementation of this Specific Plan, and- illustrative in nature- are meant to be flexible and respond to changes in taste and environmental concerns over time. The following Design Standards set forth general criteria for landscaping at the community-wide level and are intended to ensure that a cohesive landscape fabric will be created to unify the overall community at all levels of development. The plant palette (**Figure 5.1-2**) lists the recommended species to be used in the specific areas described in the landscape design guidelines.

A. General Standards

- Final landscape plans prepared for implementing projects shall either be consistent with the City's Landscape Standards as adopted by Ordinance No. 2015-167 or with this Specific Plan.
- All landscaping should utilize the approved trees, shrubs, and groundcovers listed in the plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.
- The planting of native and drought-tolerant species in conjunction with water-efficient and drip irrigation systems is highly encouraged throughout the Project.
- Automated, high efficiency irrigation systems such as bubbler irrigation and low-angle, low-flow spay heads should be installed to reduce the amount of water devoted to landscaped areas.
- The use of large or inefficient turf areas in landscaping should be reduced wherever possible by incorporating water-conserving native groundcovers, shrubs, or trees.
- Plants with similar water requirements should be grouped together, a technique known as hydrozoning.

B. Streetscapes and Entry Monumentation

- Landscaping along major roadways and entries should be consistent, formalized, and composed of signature plantings from the plant palette to create attractive and cohesive community identity.
- Large evergreen trees and deciduous trees should be planted in a formal pattern no greater than 30 feet apart.
- Informal groupings of ornamental trees, shrubs, and vines should be planted between sidewalks and walls to soften their appearance.
- Flowering trees, shrubs, and ornamental grasses are encouraged at entries and key intersections to add color and interest.



C. Parks and Open Space Areas

Park areas should be landscaped with small, informal groups of trees, shrubs and groundcovers to provide shade.

D. Residential Landscape

The landscape character should vary from neighborhood to neighborhood. Each neighborhood may use its own distinguishing ornamental/flowering tree species from the plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.

Residential Front Yards

- Front yard landscaping is required for all homes and will be reviewed under a separate minor plot plan application.
- Groundcovers, inert natural materials, and/or native grasses are encouraged in front yards to limit the amount of turf planted.
- Accent shrubs that highlight the front entry are encouraged.
- Walls that are visible from the street should be softened with informal shrub plantings.

Residential Front Yards At Open End of a Cul-de-sac

As shown in the picture below, in situations where there is no structure at the toe of the cul-de-sac, and the rear yard from the adjacent street is visible, the residential front yard landscaping closest to the open end of the cul-de-sac should be enhanced with a combination of mid to high shrubs and trees to screen walls and enhance the view at the end of the cul-de-sac.





E. Lighting

- Lighting should be designed to define vehicular and pedestrian circulation patterns, distinguish community entries and activity areas, and ensure safe pedestrian movement.
- Lighting fixtures should be compatible with the architectural styles of surrounding building while also being consistent throughout the community.
- Lighting fixtures are required on either side of the garages and above or next to the front door.
- Primary monuments that are located at major entry areas into the community should be creatively lit to provide a sense of arrival to the community.
- To preserve views of the nighttime sky, lighting elements should minimize glare, spillover, and light pollution. Outdoor lighting should be directed downward.

5.1.5 Streetscapes

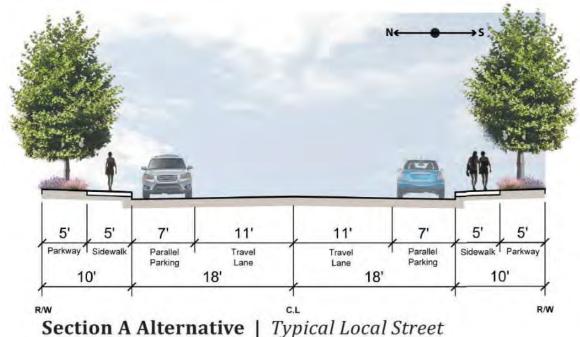
As described above, a unified street planting program will be used throughout the community to reinforce the landscape character and the landscape districts of Cimarron Ridge. Streetscapes throughout the community should be planted with a combination of street trees, shrubs, and groundcovers. Streetscapes are intended to create a high quality, visually pleasing experience at the pedestrian and vehicular level. In addition, streetscapes serve functional purposes, including buffering uses, noise attenuation, and screening undesirable views from public view.

As shown in **Figure 3.2-3, Roadway Cross Sections**, several types of streetscapes are proposed for Cimarron Ridge. A hierarchy of streetscapes is provided with distinctive landscapes. Landscape elements include medians, parkways, and rights-of-way.

Section A - Typical Local Streets

As shown in **Figure 3.2-3, Roadway Cross Sections,** and in the picture below, local streets contain a 5-foot-wide landscaped parkway with a 5-foot-wide concrete sidewalk adjacent to the curb along both sides of the roadway. The homeowner will be responsible for the maintenance and upkeep of the landscape parkway adjacent to the residence. Landscaping for the parkway will be selected by the builders from the approved landscape palette. **Figure 5.1-2, Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.



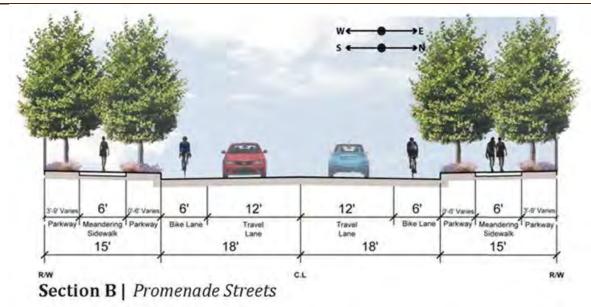


Section A Anternative | Typical Bocal Stree

Section B - Promenade Streets

As shown in **Figure 3.2-2, Proposed Circulation Plan,** U Street and Thornton Avenue are proposed as Promenade streets. As shown in **Figure 3.2-3, Roadway Cross Sections** and in the picture below, Promenade streets are enhanced with a striped 6-foot-wide Class II bike lane on each side of the roadway. Promenade streets feature a 6-foot-wide meandering sidewalk for pedestrian circulation that is flanked on both sides by an enhanced landscaped parkway.





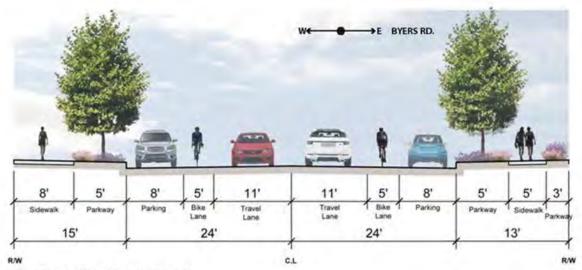
Promenade streets are a central feature of Cimarron Ridge. They are designed to feature rich community-based streetscapes, helping define the sense of arrival in Cimarron Ridge, and to complement the urban design fabric while also contributing to the overall site character.

Parkways should be planted with uniformly spaced rows of deciduous trees closest to the street with evergreen trees planted at the edge of the parkways away from the street in random groupings. Under the trees, the parkways should be planted with groupings of low-growing, low to medium water use flowering shrubs, groundcovers, and native grasses. **Figure 5.1-2**, **Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.

Section C - Byers Road

As shown in **Figure 3.2-3 Roadway Cross Sections**, and in the picture below, the eastern side of Byers Road will contain a 3-foot-wide landscape buffer followed by a 5-foot-wide sidewalk and a 5-foot-wide landscaped parkway. The western side of Byers Road will feature an enhanced 8-foot-wide sidewalk. A 5-foot-wide landscaped parkway adjacent to the curb along both sides of the roadway provides pedestrian and vehicular traffic separation.





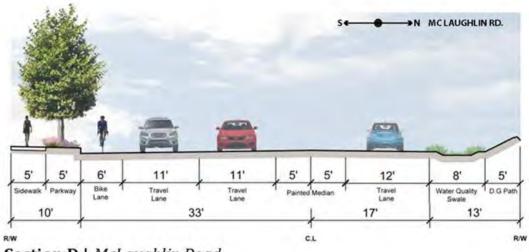
Section C | Byers Road.

Parkways should be planted with uniformly spaced rows of evergreen trees closest to the street with low-growing flowering groundcovers planted at the edge of the parkways away from the street. Under the trees, the parkways should be planted with groupings of low-growing, low to medium water use flowering shrubs, groundcovers, and native grasses. **Figure 5.1-2, Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.

Section D - McLaughlin Road

As shown in **Figure 3.2-3, Roadway Cross Sections,** and in the picture below, the southern side of McLaughlin Road will contain a 5-foot-wide sidewalk adjacent to the property line, followed by a 5-foot-wide landscaped parkway. The northern side of McLaughlin Road will contain an 8-foot-wide water quality swale and a 5-foot-wide decomposed granite path.





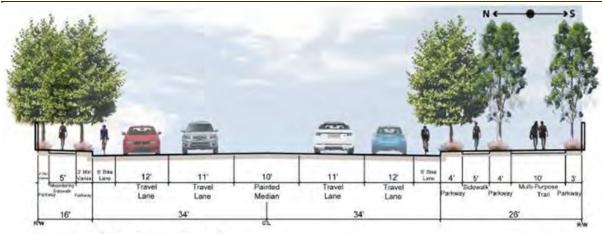
Section D | McLaughlin Road

Parkways should be planted with uniformly spaced rows of evergreen trees. Under the trees, the parkways should be planted with groupings of low-growing, low to medium water use flowering shrubs, groundcovers, and native grasses. The water quality swale should be planted with groundcovers and native grasses as approved by the City Engineering department. **Figure 5.1-2, Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.

Section F - Goetz Road

As shown in **Figure 3.2-3 Roadway Cross Sections**, and in the picture below, the southern side of Goetz Road will contain a 3-foot-wide landscaped buffer adjacent to the property line, followed by a multipurpose trail, a 4-foot-wide landscaped parkway, a sidewalk, and a 4-foot-wide landscaped parkway adjacent to the curb. The northern side of Goetz Road will contain a meandering sidewalk flanked on both sides by a landscaped parkway of varying size.



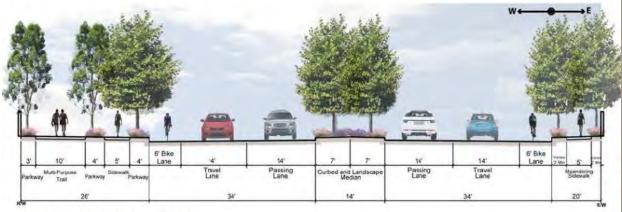


Section F | Goetz Road

Landscape parkways should be planted with uniformly spaced rows of deciduous trees closest to the street with evergreen trees planted at the edge of the parkways away from the street in random groupings. Under these trees, groupings of low-growing shrubs, low to medium water use flowering shrubs, groundcovers, and native grasses should be planted. The landscaped buffer adjacent to the property line should contain medium- to high-growing flowering shrubs to screen the wall. **Figure 5.1-2, Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.

Section G - Valley Boulevard

As shown in **Figure 3.2-3 Roadway Cross Sections**, and in the picture below, Valley Boulevard will contain a 14-foot-wide curbed landscape median in the center of the street. The western side of the road will contain a 3-foot-wide landscaped buffer adjacent to the property line, followed by a multipurpose trail, a 4-foot-wide landscaped parkway, a sidewalk, and a 4-foot-wide landscaped parkway adjacent to the curb. The eastern side of Valley Boulevard will contain a meandering sidewalk flanked on both sides by a landscaped parkway of varying size.



Section G | Valley Blvd.



Parkways should be planted with uniformly spaced rows of deciduous trees closest to the street with evergreen trees planted at the edge of the parkways away from the street in random groupings. Under these trees, groupings of low-growing shrubs, low to medium water use flowering shrubs, groundcovers, and native grasses will be planted. The landscaped buffer adjacent to the property line should contain medium- to high-growing flowering shrubs to screen the wall.

The median in the center of the street should be planted with flowering accent trees evenly spaced down the center of the median and low-growing flowering groundcovers. Inert materials such as cobble, rock riprap, and decomposed granite may also be used in the medians to reduce water use, create interest, and introduce dramatic texture. **Figure 5.1-2, Landscape Plant Palette** provides a complete list of plant materials appropriate to the landscape parkway and landscape district.

5.1.6 Entry Monumentation

A hierarchy of entry monumentation is planned within Cimarron Ridge to create a sense of identity for the overall community and for its individual neighborhoods. It is the purpose of these entry monuments to identify the Project, reinforce the general landscape theme, establish the character of the community, and provide a prominent reminder of the quality and distinctiveness of Cimarron Ridge. The hierarchy of entry monumentation consists of primary monuments, secondary monuments, neighborhood monuments, and park monuments. Conceptual renderings and site-specific locations of the various entry monuments follow.

All entry monuments are composed of a thematic blend of built features, landscape features, signage and specialty lighting that provide strong landmarks and reinforce the distinctiveness of Cimarron Ridge. Monument signage should be designed to be compatible with the character of the community but flexible enough to respond to the individual contexts. Logos, type styles, and color schemes should be consistent throughout the Planning Area. Monument signs should vary in size and detail in a manner that reflects their relative importance within the signage hierarchy.

Primary Entry Monumentation

Primary entries provide strong landmarks that reinforce the major entries into the community, while also establishing a unique and tasteful landscape theme for Cimarron Ridge. As shown in **Figure 5.1-3**, **Primary Entry Monumentation**, primary entry monuments are located at three prominent intersections in Cimarron Ridge: Valley Boulevard and McLaughlin Road; Valley Boulevard and Goetz Road (entrance to the age-restricted Planning Areas 5 and 6); and Thornton Avenue and Valley Boulevard. **Figure 5.1-3** provides conceptual illustrations of the elements and details that should be incorporated into primary monuments.

As shown in **Figure 5.1-3**, primary monuments are located along both sides of the street right-of-way. On the western side of the right-of-way, primary monuments will consist of an approximately 7-foot-high stone veneer pilaster with an attached low uniform stone veneer wall.



A decorative themed community identification sign is proposed within the pilaster. On the eastern side of the right-of-way, primary monuments will consist of a slightly smaller, but wider, stone veneer pilaster with a community identification sign. Formal planting materials for primary monuments should consist of flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.

Secondary Entry Monumentation

As shown in **Figure 5.1-4, Secondary Entry Monumentation**, secondary monuments are proposed for two prominent intersections within the community: at the intersection of McLaughlin Road and a planned internal roadway, and at the intersection of Goetz Road and Thornton Avenue. **Figure 5.1-4** provides conceptual illustrations of the elements and details that should be incorporated into secondary monuments.

As shown in **Figure 5.1-4**, secondary monuments are designed to have a less dramatic impact than primary monuments but still reinforce the community thematic features. As with primary monuments, secondary monuments are located on both sides of the right-of-way. Secondary monuments will consist of an approximately 6-foot-high stone veneer pilaster with a decorative themed community identification sign and a low uniform stone veneer theme wall. Formal planting materials for secondary monuments should consist of flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.

Neighborhood Entry Monuments

As shown in **Figure 5.1-5A** and **Figure 5.1B**, **Neighborhood Entry Monumentation** neighborhood monuments are located at four points within the community. Neighborhood monuments are situated along prominent roads that provide access to individual neighborhoods. **Figures 5.1-5A** and **5.1-5B** provide conceptual illustrations of the elements and details that should be incorporated into neighborhood monuments.

Neighborhood monuments are similar to primary and secondary monuments, but on a smaller

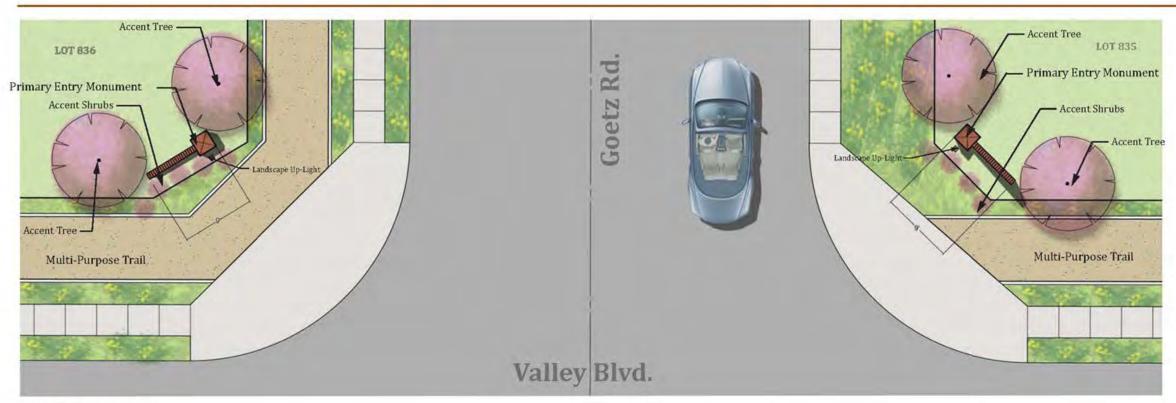
scale. As shown in Figures **5.1-5A** and **5.1-5B**, two styles of neighborhood monumentation are proposed. Figure 5.1-5A features a stone veneer pilaster on each side of the right-of-way with a decorative themed community identification sign. **Figure** 5.1-5B features a stone veneer wall





mount (i.e. affixed to the community theme wall) on each side of the right-of-way with a decorative themed community identification sign. Formal planting materials for both styles of neighborhood monumentation should consist of flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.





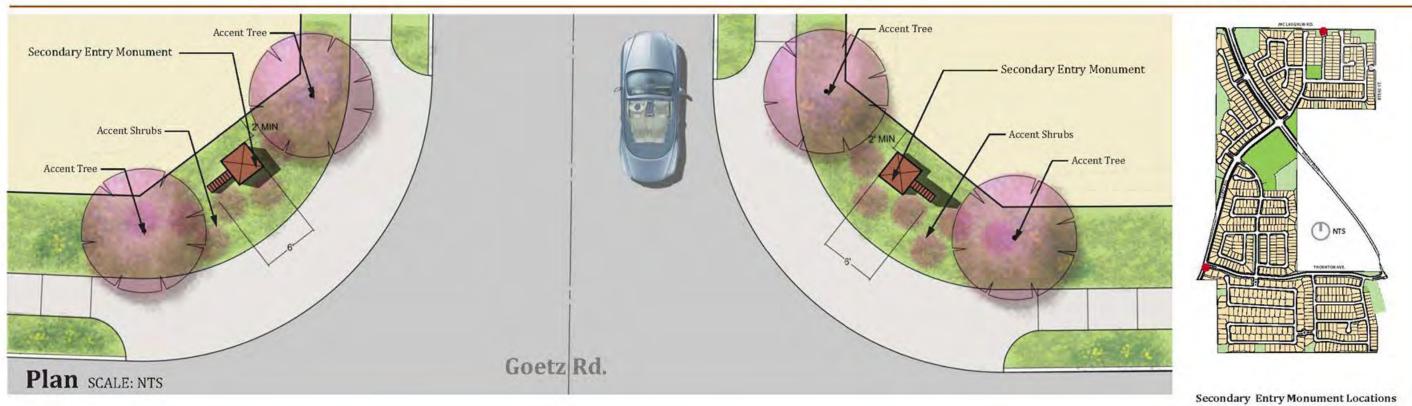


Plan SCALE: NTS



Figure 5.1-3 **Primary** Entry Monumentation





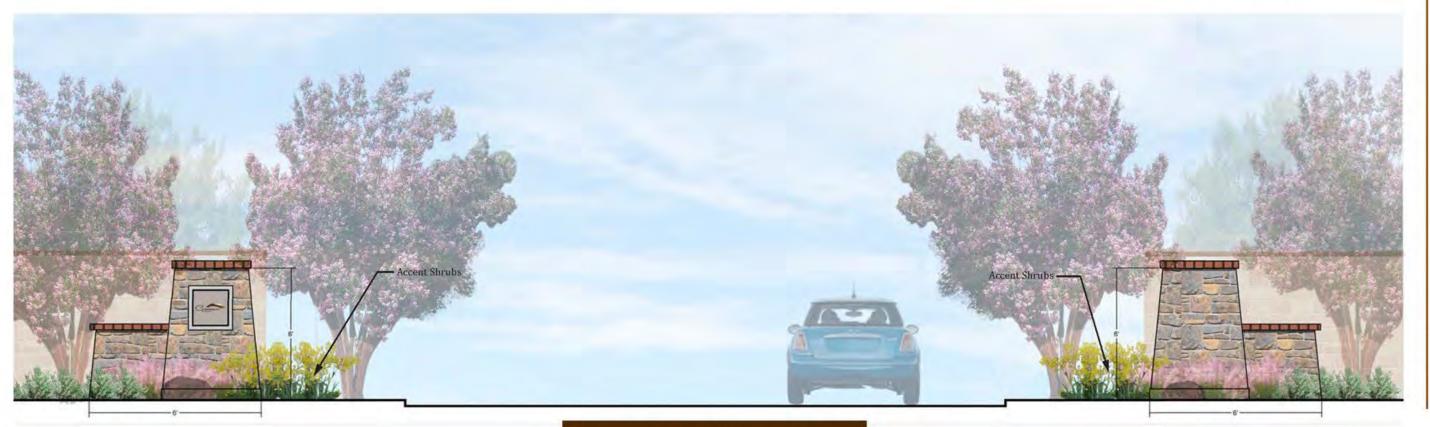


Figure 5.1-4
Secondary
Entry
Monumentation



Gated Neighborhood Entry Monumentation

As shown in **Figure 5.1-5C**, **Gated Neighborhood Entry for Planning Areas 2, 5A & 6**, gated entry monuments are located at entrances to Planning Area 2 and the adult living Planning Areas 5A and 6. **Figure 5.1-5C** provides conceptual illustrations of the elements and details that should be incorporated into gated entry monuments.

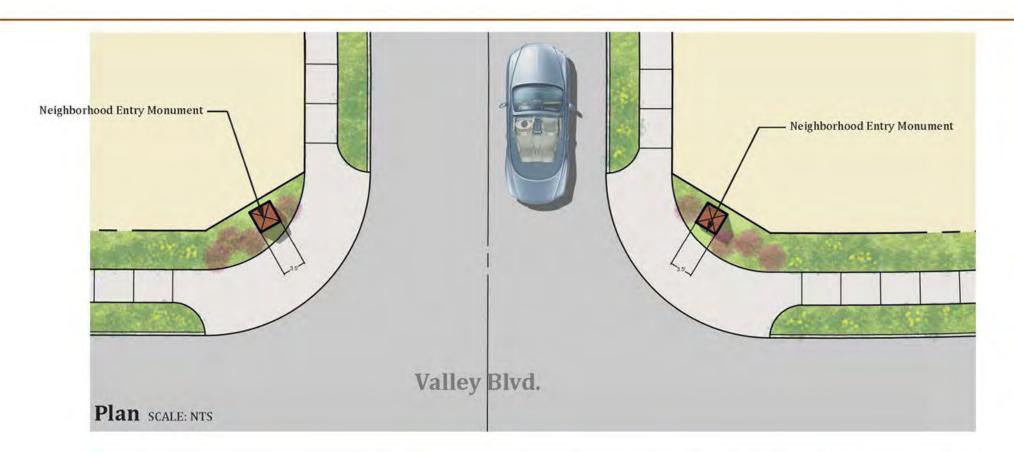
As shown in **Figures 5.1-5C** gated entry monuments are unmanned and feature a stone veneer pilaster on each side of the drive aisle with a decorative themed community identification sign. A stone veneer pilaster in the center median separates incoming and outgoing traffic. An electric gate restricts access to incoming traffic. Formal planting materials for gated neighborhood monumentation should consist of up-lighting, flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2, Landscape Plant Palette**.

Park Monumentation

A key component of the Cimarron Ridge Specific Plan will be a 10.9-gross acre multipurpose park that will be accessible from White Quartz Way and will be available to the entire city, as well as to the future residents and visitors of Cimarron Ridge. Careful thought and consideration has been given to the design of the park monumentation to highlight this key feature of the community. **Figure 5.1-6A Park Monumentation** provides conceptual illustrations of the elements and details that should be incorporated into the primary park monumentation.

As shown in **Figure 5.1-6A**, the primary park monument is proposed on both sides of the driveway entrance. The western side of the entry would consist of an approximately 7-foot-high stone veneer pilaster with an attached low uniform theme wall. A decorative themed community identification sign is proposed within the pilaster and along the theme wall. The eastern side of the entry would consist of an approximately 6-foot-high stone veneer pilaster. **Figure 5.1-6B**, **Secondary Entry Park Monumentation** illustrates the elements and details that should be incorporated into the secondary entry monument to the 10.9-gross acre park. The secondary park entry consists of the same materials and color schemes as the primary park entry. The secondary park entry consists of a 4-foot-high low uniform theme wall and decorative themed community identification sign. Formal planting materials for both park monuments should consist of flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.







Neighborhood Entry Monument Locations

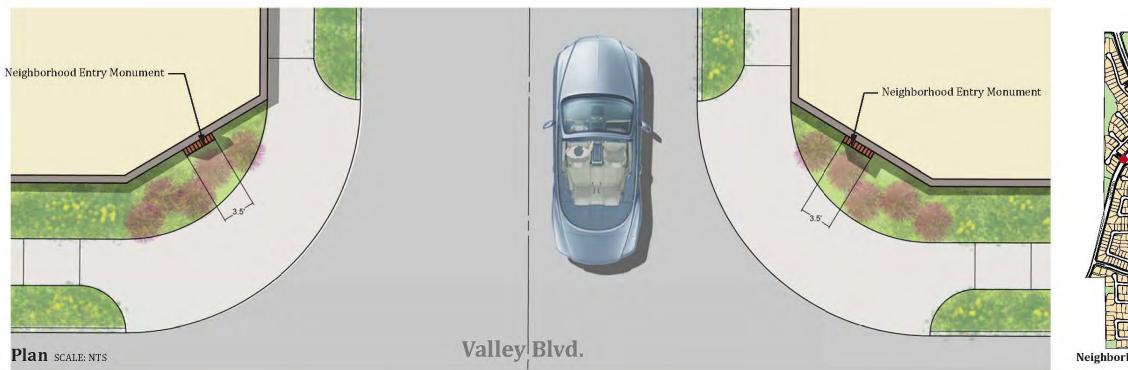


Neighborhood Entry Monumentation Option A

Figure 5.1.5A

Neighborhood
Entry
Monumentation
Option A







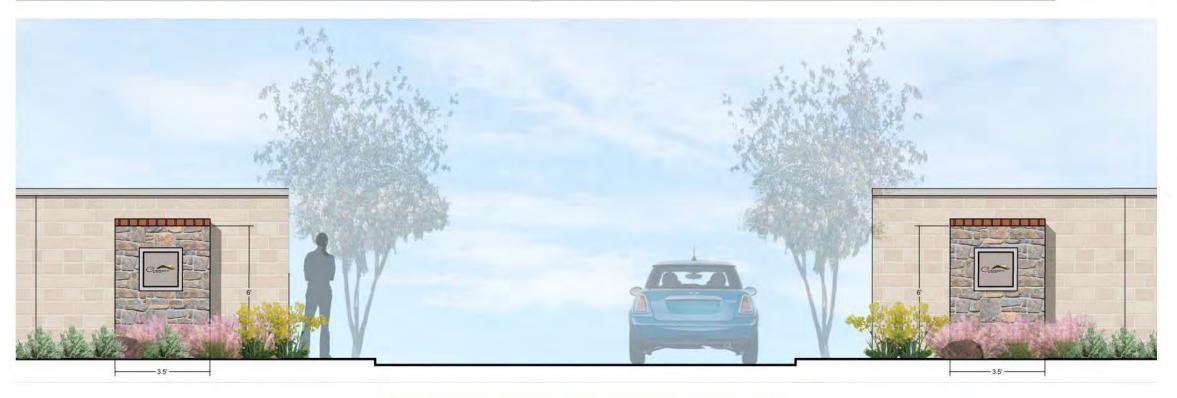


Figure 5.1.5B

Neighborhood
Entry
Monumentation
Option B



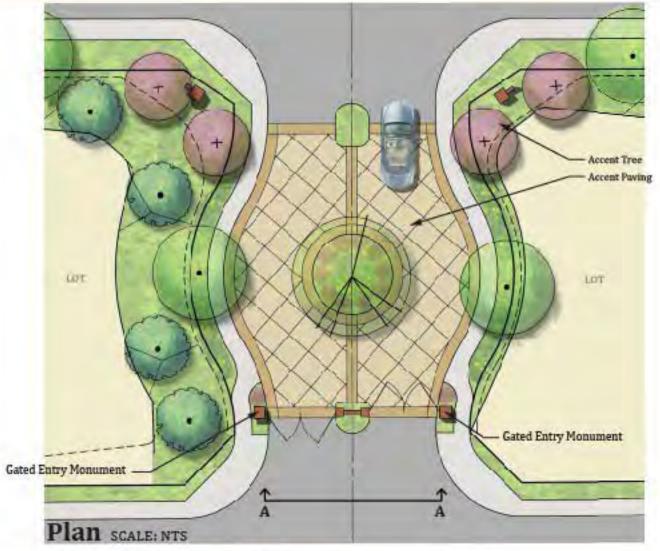
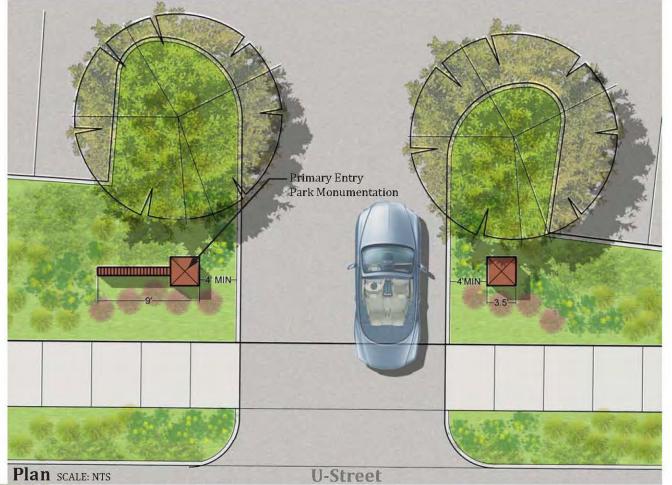






Figure 5.1-5C Gated Neighborhood Entry for Planning Areas 2, 5A, & 6







Primary Entry Park Monument Locations



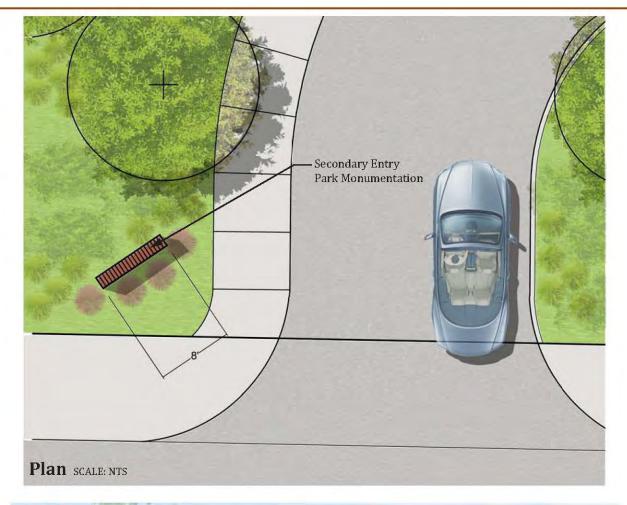
Figure 5.1.6A

Primary Entry

Park Monumentation

Primary Entry Park Monumentation







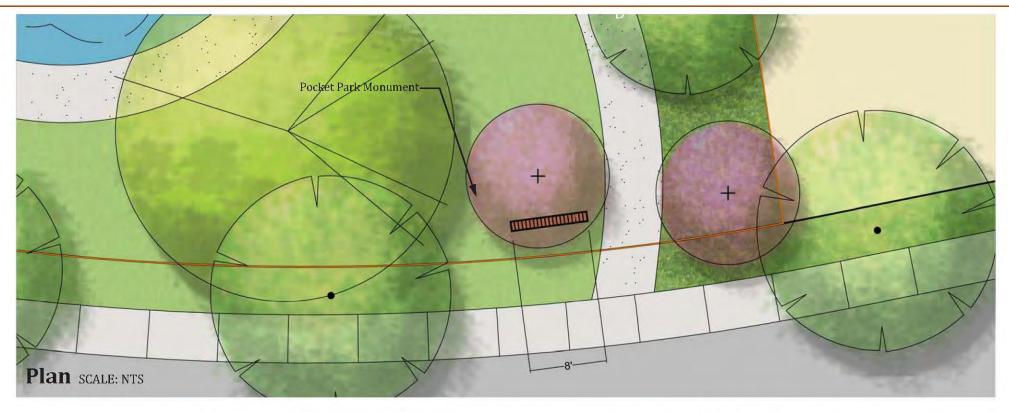
Secondary Entry
Park Monument Locations



Secondary Entry Park Monumentation

Figure 5.1.6B







Pocket Park Monument Locations



Pocket Park Monumentation

Figure 5.1.6C

Pocket Park Monumentation



In addition to the multipurpose park, there is one pocket park located in Planning Area 1B. **Figure 5.1-6C**, **Pocket Park Monumentation** provides conceptual illustrations of the elements and details that should be incorporated into the pocket park monumentation. As shown in **Figure 5.1-6C**, pocket park monumentation consists of a stone veneer wall with a decorative themed identification sign. Formal planting materials should consist of flowering accent shrubs, groundcover plantings, and native grasses consistent with the landscape plant palette in **Figure 5.1-2**, **Landscape Plant Palette**.

5.1.7 Open Space and Recreational Land Uses

An important element of Cimarron Ridge is the provision of recreation and open spaces to enhance the quality of living for residents of the community and those around it. As illustrated in **Figure 3.1-1, Conceptual Development Plan,** Cimarron Ridge includes a network of community parks, pocket parks, natural open space areas, and water quality basins. Individual components of the open space system are discussed and graphically depicted on the following pages. Concept plans of the open space and recreation areas are provided to present initial designs that could be included in future design proposals.

Multipurpose Park

The central section of the site features an approximately 10.9-gross acre multipurpose park that is planned in Planning Area 4B. As shown in **Figure 5.1-7A**, **Conceptual Park Layout** careful thought and consideration has been given to the initial design concepts to include a range of activities such as soccer, baseball and sport fields, walking trails, dining areas, dog park, and tot lots as well as informal open space areas and recreational areas. A meandering sidewalk is also planned to connect various areas of the park. The park will be further enhanced through the integration of various landscape and hardscape elements to create a highly sought-after recreational facility. All of the buildings and structural elements will utilize the same stone and other similar materials as the monuments that are described above. These materials will be incorporated into the design elements but will not be required for an entire façade. The

multipurpose park will be accessible from White Quartz Way and will be available to the entire city, as well as to the future residents and visitors of Cimarron Ridge.









Figure 5.1-7 Figure 5.1-7A

Park Layout Park Layout 10.9 Acre Park





Figure 5.1-7A

Conceptual

Park Layout

10.9 Acre Park











Figure 5.1-7B Conceptual Park Layout



Recreation Center

A 1.5-acre recreation center is located in Planning Area 5B. The private recreation center will be used by residents of Planning Areas 5B and 6. The recreation center will include on-site parking, lap pool with seating niche, restrooms, meeting room, turf event area, outdoor dining area, BBQ, and produce garden. See **Figure 3.1-5**.

Pickleball Park

A 1.2-acre pickleball facility is located in Planning Area 5B. This facility will be private. The surrounding court area will be landscaped with trees and turf and walkways throughout. South of the courts is a small area for social gatherings and a dog park for residents. The courts and surrounding area will be fenced. On-street parking will be utilized. See **Figure 3.1-4**.

Pocket Park

Planning Area 1B has a 0.2-acre pocket park with a private recreation area that is strategically located to serve residents of Planning Area 1A. As shown in **Figure** 5.1-8, anticipated recreational components for the pocket park include shade trees, play areas, walkways, picnic areas, and rolling turf areas. All of the building and structural elements for the pocket park will utilize the same stone and other similar materials as the monuments that are described above.





Water Quality Basin

As shown in **Figure 3.1-1, Conceptual Development Plan** four water quality basins totaling 11.5 acres are planned for in Planning Areas 1A, 4A, 5A, and 6. The basins serve as detention basins during storm events and facilitate drainage across the community. Furthermore, each basin will be located along the perimeter of the community and will serve as a buffer to perimeter roadways and off-site land uses. In concert with the surrounding homes, each basin will have its

own special landscape treatment to convey unique design and character. The basins are not expected to provide any active recreational or park amenities, but they will serve as an open space amenity for the community. conceptual basin concept is depicted in Figure 5.1-9. As shown, the basins are envisioned to contain a special landscape treatment that will reinforce the community landscape theme and serve as an open space amenity.



Open Space Conservation

As shown in **Figure 3.1-1, Conceptual Development Plan** approximately 3.1 acres in Planning Area 7B are designed as natural open space which is designated as Open Space Conservation on the Land Use Plan. This area consists of steep slopes and will serve to provide support and banking to the adjacent lots and roads and function as a view shed of the natural environment. It is important to note that while the land use category is Open Space Conservation, the designation is not intended to imply that this area serves as a habitat conservation area. Rather, for the purposes of this Specific Plan, the 3.1 acres is not counted toward developable area, and will remain in its natural habitat.



Common Landscape Areas

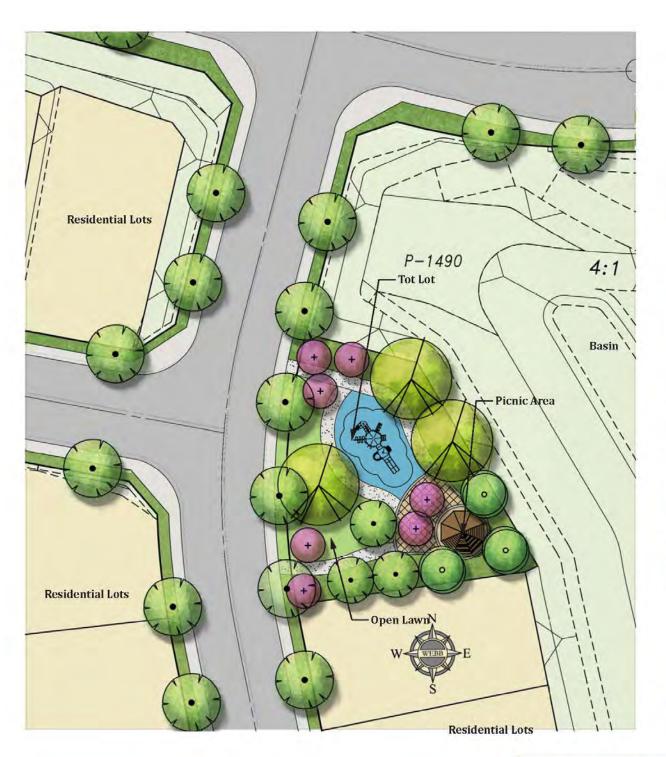
As shown in **Figures 5.1-10** and **5.1-11**, two common landscaped areas have been identified within the Specific Plan area. The common landscape areas are not expected to provide any active

recreational or park amenities, but they will contain special landscape treatments that reinforce the community theme and serve as open space amenities for the community.









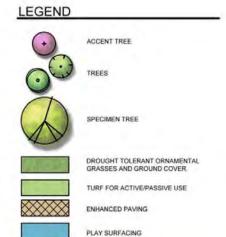












Figure 5.1-8

Conceptual

Park Layout

Pocket Park





Basin Concept | Typical Layout Scale: 1"=50"

DROUGH" TOLERANT ORNWAENTAL GRASSEE AND GROUND COVER

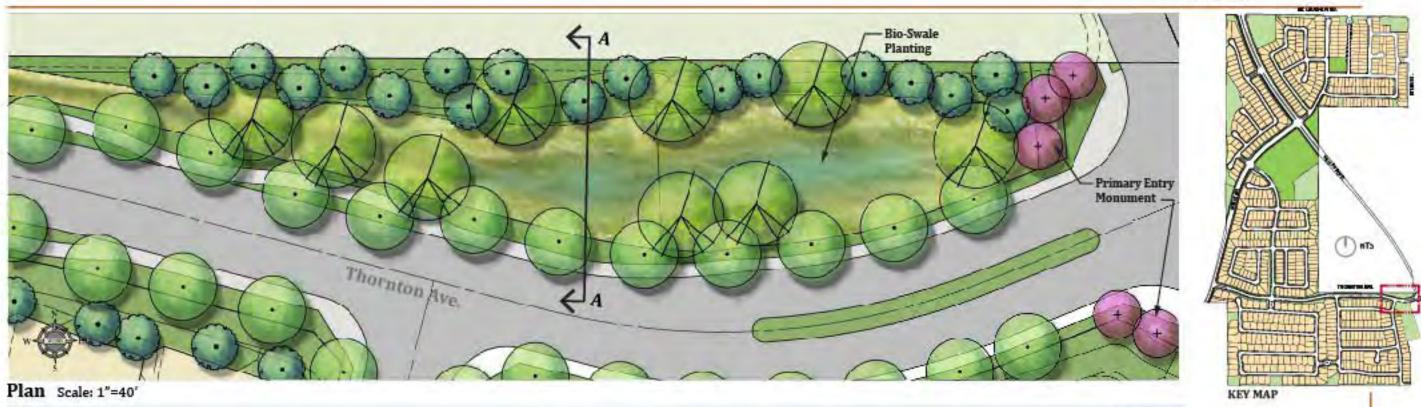
NOW STREAMED BACKS DOTTON HYDRO-SEEDED WITH CALIFORNIA NATIVE PLANT MIX Figure 5.1-9 **Basin Concept** *Typical Layout*

(T) NTS

Section C-C | Scale 1"=20'

Drought Tolerant Grasses & Groundcover







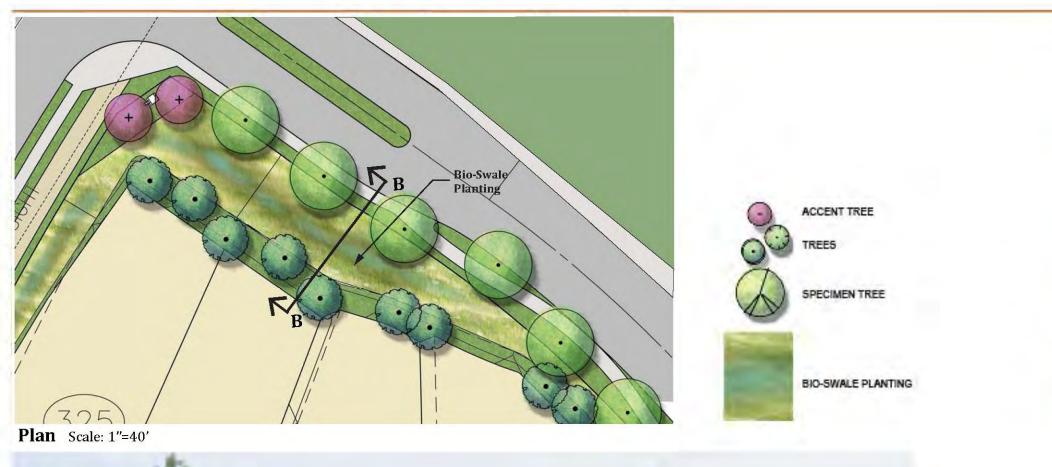
Elevation A Scale: NTS

Common Landscape Area | Area 1

Figure 5.1-10 Common

Landscape Area Area 1









Elevation B Scale: 1/8" =1'-0"

Common Landscape Area | Area 2

Figure 5.1-11
Common
Landscape Area
Area 2



5.1.8 Walls and Fences

As shown in **Figure 5.1-12, Wall Plan**, and **Figure 5.1-13A, Conceptual Wall and Fence Details**, six types of walls and fencing are proposed for the Cimarron Ridge community. Where possible, landscaping and berms are used to separate land uses in order to create a sense of openness. Where walls and fencing are necessary, they are intended to create a sense of community space, increase privacy and security, provide noise attenuation, and act as a buffer between residences and neighborhoods.

From a visual perspective, walls and fences also reinforce the architectural styles and the landscape themes of the community. The six types of walls and fencing proposed for Cimarron Ridge are described below.

Theme Wall

As shown in Figure 5.1-12, Wall Plan, theme walls are proposed along several roadways within the community to ensure the privacy of adjacent residences. Specifically, these walls may be located along portions of McLaughlin Road, portions of Byers Road, both sides of Valley Boulevard, both sides of Goetz Road (except for the area outside of the Project limits), and along both sides of Thornton Avenue (except for that area outside the Project limits). Theme walls are used to provide an added identity for the community. As shown in Figure 5.1-13A Conceptual Wall and Fence Details, theme walls shall consist of a 6-foot-high stone block wall set within pilasters. However, portions of Valley Boulevard and Goetz Road shall consist of an 8- foot wall per the Noise Impact Analysis prepared for the Project by Kunzman Associates (January 31, 2014). The developer may select which stone textures will be used; however, walls facing a public view should be a split face block. In all cases, the colors should be earth tone. Pilasters should occur at intervals appropriate to the wall run and at least every 100 feet along long spans. At locations where the wall changes direction, pilasters should be enhanced with a stone veneer finish and shall feature a brick cap (see **Figure 5.1.13A**₁). At all other locations, decorative block is acceptable. Standard walls and pilasters shall feature a cap of decorative block, concrete, or stone (see Figure 5.1.13A).

Community Wall

As shown in **Figure 5.1-12, Wall Plan,** community walls are provided along rear yard residential property boundaries abutting the eastern and southern perimeters of the community. Community walls may also be located at certain interfaces of residential rear yards to interior streets, open space, or parks. As shown in **Figure 5.1-13A, Conceptual Wall and Fence Details,** community walls shall consist of a 6-foot-high block wall set within pilasters. In instances where the wall faces a public view, it should be a split face block. Pilasters should occur at all property line changes, with intervals appropriate to the wall run and at least every 150 feet along long spans. Pilasters may be constructed of split face block. The walls and pilasters shall feature a cap of decorative block, concrete, or stone.



Combination Fence and Wall

As shown in **Figure 5.1-12, Wall Plan**, a combination wall and fence is proposed in certain instances where a residential neighborhood abuts an open space area, where views of open spaces and hilly terrain are afforded.

As shown in **Figure 5.1-13A**, **Conceptual Wall and Fence Details** the combination wall should be composed of a block wall foundation with vertical portions of tubular steel panels. Pilasters may be constructed of decorative block. Pilasters should occur at all property line changes, with intervals appropriate to the wall run and at least every 100 feet along long spans. The combination wall is intended to be used where partial privacy is needed, but views add to the aesthetic value.

Open View Fence

The design intent of open view fences are to provide security while allowing visual permeability. Open view fences are not shown on **Figure 5.1-12**, but they could be located in areas where view opportunities exist and where the visual protection from common areas is ensured. As shown in **Figure 5.1-13A**, the view fence would be constructed of tubular steel panels or other appropriate materials and shall meet the minimum height requirements.

Trail Fence

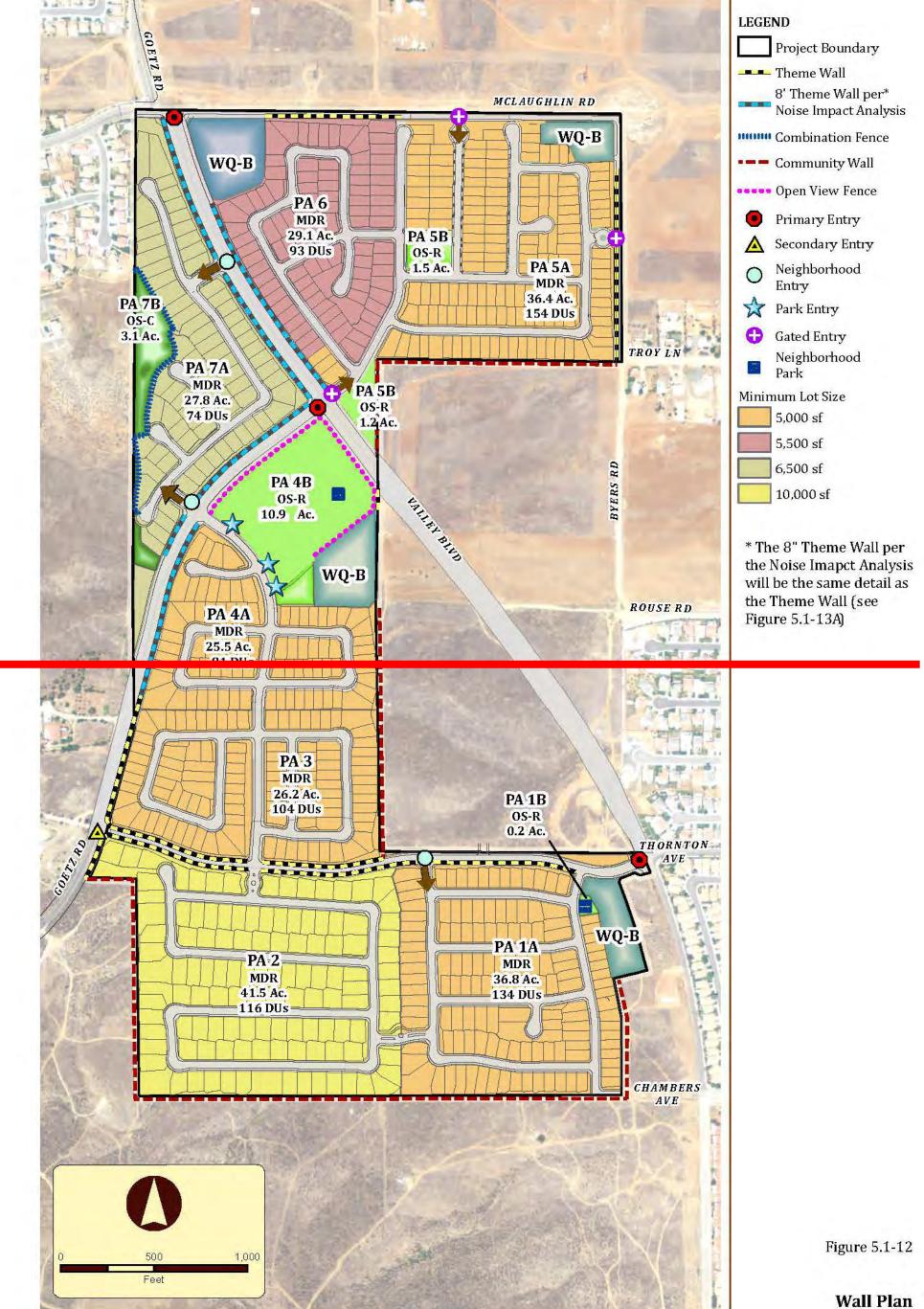
The design intent of trail fencing is to highlight trail amenities in Cimarron Ridge (see **Figure 3.2-4, Non-Vehicular Circulation Plan**). Trail fences are not shown on **Figure 5.1-12**, but at the city's discretion, they may be located alongside the 10-foot-wide multipurpose trail along Valley Boulevard and Goetz Road and alongside walking trails within the 10.9-gross acre park. As shown in **Figure 5.1-13A**, the trail fence would consist of a two-rail vinyl fence.

Neighborhood Fence

The intent of neighborhood fences are to provide privacy and sense of ownership. Neighborhood fences and walls should be designed as an integral component and extension of the building design, and surrounding landscape of that neighborhood. Two types of neighborhood fences are applicable for Cimarron Ridge: return walls and interior side/rear yard fences.

Return Walls. Return walls are walls that face the public right-of-way, and that are visible from the street. A return wall is best set back from the front property line and should be constructed of materials, colors, and textures that are similar and harmonious with the architecture of the respective dwelling. Return walls are shown in **Figure 5.1-13B** and shall be constructed of split face block.







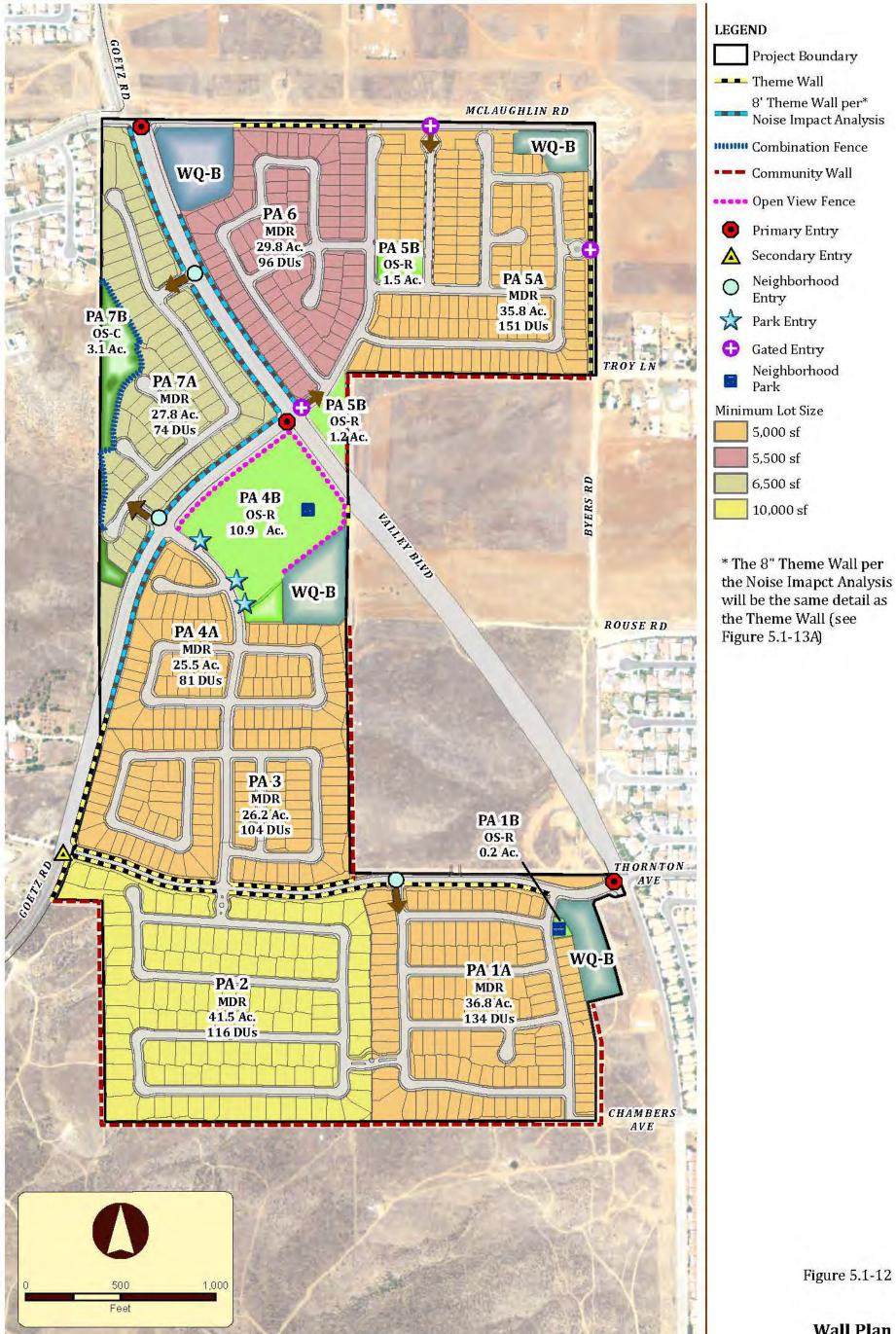
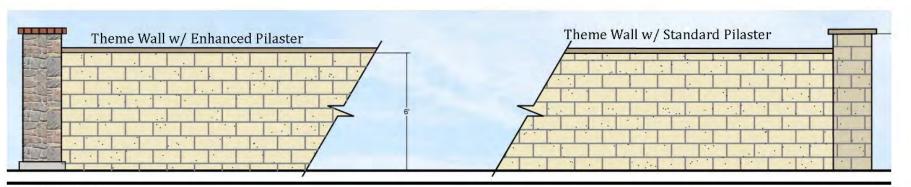


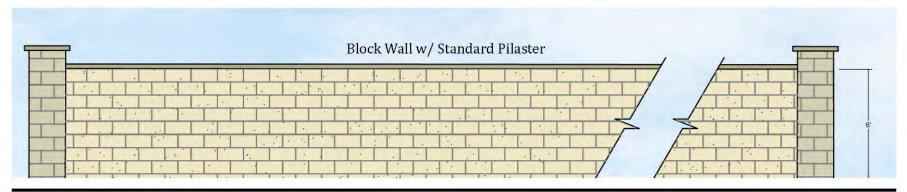
Figure 5.1-12





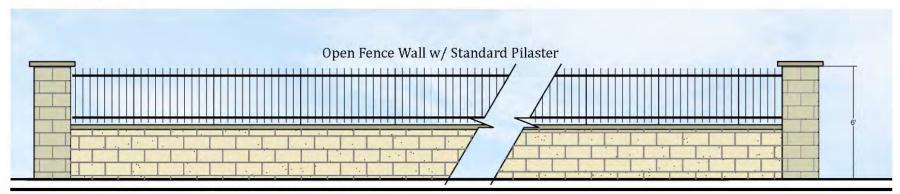
NOTE: Portions of Valley Blvd and Goetz Rd shall be 8' per noise impact analysis (see fig. 5.1-12).

Theme Wall

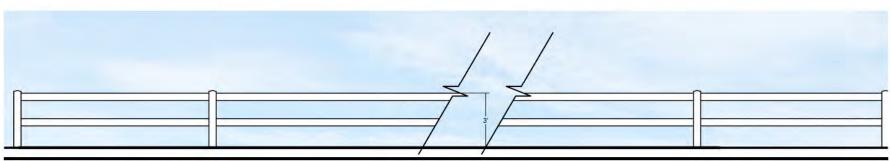


NOTE: Pilasters at promiment corners and entrances shall be of Stone, not block.

Community Wall



Open Fence | Combo Wall w/ Wrought Iron

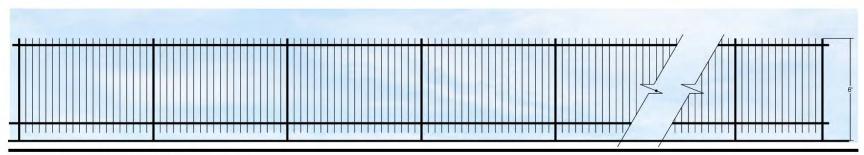


Trail Fence | 2-Rail Vinyl Fence

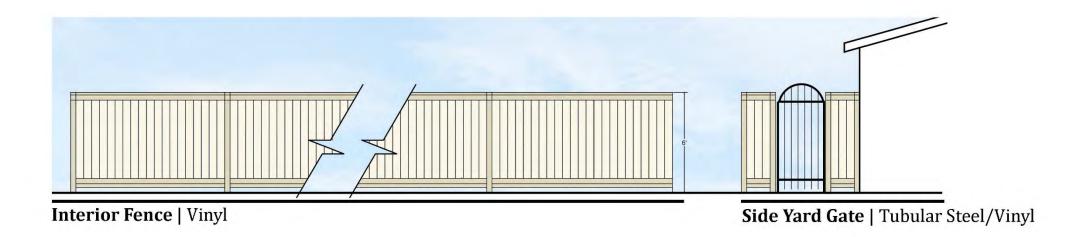
Figure 5.1.13A Conceptual

Wall and Fence
Details





Open View Fence | Wrought Iron



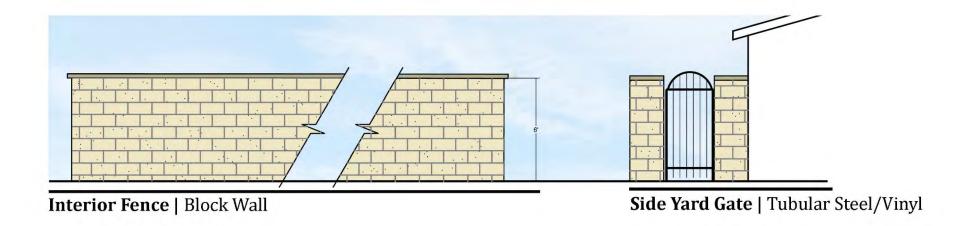


Figure 5.1-13B

Conceptual
Wall and Fence
Details



Interior side/rear yard fences. Interior side yard/rear yard fences are located along the side and rear property lines and are not visible from the street. These interior fences should be constructed of durable materials such as vinyl or block wall. Gates should be constructed of tubular steel or vinyl. In all cases, neighborhood fences should be constructed of materials, colors, and textures that are similar and harmonious with the architecture of the respective dwelling. Interior side/rear yard fences are shown in **Figure 5.1-13B.**

5.1.9 Lighting

Street Lighting

City Ordinance No. 2009-24 will be observed as the Project is located within 45 miles of the Mt. Palomar Observatory. Ordinance No. 2009-24 requires that projects incorporate "Night Sky" provisions such as lower lighting levels, backlit addresses and street signs, shielded lights, and other indirect lighting methods.

5.2 ARCHITECTURAL DESIGN GUIDELINES



5.2.1 Purpose

The purpose of the Architectural Design Guidelines is to promote product quality and community diversity by encouraging builders to expand and explore the range of detailing within the selected architectural styles without sacrificing quality control over the design process.

In all cases, this philosophy is intended to capture a historic context or period of architecture, yet keep in mind the constraints put on production home-building.

Seven separate and distinct architectural styles have been selected for the palette in Cimarron Ridge. Each style is presented on the following pages in the form of a photo collage and a brief description of the main elements that delineate each style. Accordingly, these Architectural Design Guidelines are provided as a resource to those involved in the design and implementation of this Specific Plan, are illustrative in nature, and are meant to be flexible to respond to the changes in taste over time. Most importantly, the images presented in this document are meant to spur builders and their architects to take pride in the quality of their architecture.

These Architectural Design Guidelines are consistent with the Riverside County - Countywide Design Standards and Guidelines unless otherwise specified. Where these Architectural Design Guidelines are silent, future development projects shall comply with applicable provisions of the Countywide Design Standards and Guidelines.

5.2.2 Architectural Styles

The structures in Cimarron Ridge shall be rich, traditional styles, which complement the region in which the site is located and reinforce the diversity of the street scene. As described throughout this Specific Plan, permitting a variety of architectural styles is pivotal to creating a high-quality community. Cimarron Ridge features seven architectural styles that adhere to the overall community theme of a traditional neighborhood lifestyle supported by various housing types that are within easy walking distance to recreational amenities. In developing the architectural character for the community, the following approved styles may be used:

- Tuscan
- Andalusian
- Provence
- Spanish
- Cottage
- Villa
- Monterey



All seven architectural styles are acceptable for single-family detached housing developments. However, the list is not meant to be an exclusive list of architectural styles. The Community Development Director may approve other acceptable and compatible styles as described in *Chapter 6.1 Administration and Implementation Plan*.

The above list of compatible architectural styles, discussed below, is intended to provide a wide range of architectural variation, appealing to variety of potential homebuyers and creating visually interesting street scenes. Each architectural style can be applied to the four different lot sizes proposed for Cimarron Ridge (i.e., 5,000, 5,500, 6,500, and 10,000 square feet).

The seven architectural styles are discussed below.

Tuscan

Tuscan architecture recreates the Italian hilltown experience. Villas, built on ridge lines high above the sea, meander seamlessly between indoors and outside. Fully integrated designs, inspired by authentic historic forms, create compositions that emphasize the home as a retreat and sanctuary. The careful orchestration of details conveys simple elegance. Earthen tones and texture define Tuscan architecture. Wood, stone and brick combine to create a warm palette that responds to natural light. Tuscan architecture presents an image of simple grandeur. Vast stones and noble square forms; deep, heavy, projecting cornices; varied terracotta tile roofs; narrow arches; and bright stucco all combine to create structures that neither time nor weather could destroy. As shown in **Table 5.2-A** and **Figure 5.2-1**, below, elements common to the Tuscan style include:

Table 5.2-A, Tuscan Architectural Style Elements

Elements	Design Details			
Design Features	Use of stone and plaster Shaped timber tails at eaves Simple balconies with wrought iron railings or solid half walls Asymmetrical fenestration patterns Vertical forms mixed with horizontal Occasional use of arched openings			
Roofs	Shallow pitched roofs Simple gabled and hipped roofs Concrete or Terra Cotta Barrel tile			
Windows	Narrow and tall Shutters/awning shutters			
Color	Earth tones Brown or beige window frames Vibrant accents			



Accent Materials Stucco, stone















TUSCAN



Andalusian

Andalusian style is the country adaptation of the southern region of Spain. These homes were built by the custodians of large vineyards. Andalusia has long been a getaway for Spanish nobility, but it remains native land to families who have cultivated the area for generations. As a result, rustic homes and graceful villas are interspersed throughout this charming area. Andalusian style is organic in nature, reflecting the region's agrarian roots. Warmth is expressed through widespread use of natural materials such as wood, brick, and stucco. Rich textures in the wall treatments enhance this glow. The Andalusian houses have been added onto over the centuries so most of them have concrete-tiled roof lines of varying heights and go in diverse directions. Ironwork, shutters, and accenting vine-covered walls also express Andalusian style. Look for mottled, uneven colors, and old-world, time-worn finishes in warm golden tones. As shown in **Table 5.2-B** and **Figure 5.2-2**, below, elements common to the Andalusian style include:

Table 5.2-B, Andalusian Architectural Style Elements

Elements	Design Details
Design Features	Heavy use of brick and plaster Simple wrought iron railings or solid half walls Asymmetrical fenestration patterns Vertical forms mixed with horizontal Occasional use of arched openings
Roofs	Shallow pitched roofs Simple gabled and hipped roofs Barrel tile
Windows	Deep set windows on front elevations Shutters
Color	 ■ Earth tones with brick colors in the beige range ■ Brown or beige window frames ■ Vibrant accents ■ Concrete tile roofs
Accent Materials	Stucco, brick





ANDALUSIAN

Figure 5.2-2

Andalusian Style



Provence

Inspired by its namesake region, full of roman hill towns in central France, this style speaks to simple forms and lifestyles assembled with earthborn materials. The overall impression of these hill town assemblages spilling down sparsely wooded foothills is key to understanding their organic roots. Light stone and stucco walls are capped by barrel tile roofs with signature "genuoa" eaves—tiles used to terminate the roof into the walls. Timber structure and hearty, accentpainted shutters, and the use of board & batten siding round out the popular renovationist style. As shown in **Table 5.2- C** and **Figure 5.2-3,** below, elements common to the Provence style include:

Table 5.2-C, Provence Architectural Style Elements

Elements	Design Details		
Design Features	Stucco and stone walls Wrought iron or wood balconies or pot shelves Boxy forms		
Roofs	Shallow pitched roofs Simple gabled and hipped roofs Barrel tile		
Windows	Deep-set windows on front elevation Narrow & tall Wood plank shutters (2x material) Large, simple "stone" lintels & trims		
Color	Lighter earth tones Beige or white window frames Light color shutters		
Accent Material	Stucco Stone forms		









PROVENCE



Spanish

Inspired by architecture from the coastal regions of Spain where intense sunlight bathes everything and from the low-slung haciendas of the plains, the Spanish style emerged as a response to a wonderful climate. Long rectangular and cruciform massings intersect and pinwheel quadrantally out from a high, offset center. The style features long verandas, low-pitched red tile roofs, little or no overhanging eaves, and stucco siding and arches, especially above doors, porch entries, and main windows. Other defining characteristics include an asymmetrical shape with cross gables and side wings, spiral columns and pilasters, courtyards, carve stonework or cat ornaments and patterned tile accents. As shown in **Table 5.2-D** and **Figure 5.2-4**, below, elements common to the Spanish style include:

Table 5.2-D, Spanish Architectural Style Elements

Elements	Design Details	
Design Features	Arcades and trellis features Terra cotta clay pipe vents Elaborate entry surrounds Arched openings	
Roofs	Shallow-pitched roofs Simple gabled and hipped roofs Concrete or terra cotta barrel tile	
Windows	Windows on front elevation Arched or half elliptical windows Decorative grills	
Color	White or earth tones Brown or beige window frames, dark brown accents Vibrant accent colors at shutters	
Accent Material	Stucco Cut "stone" accents Painted ceramic tiles	



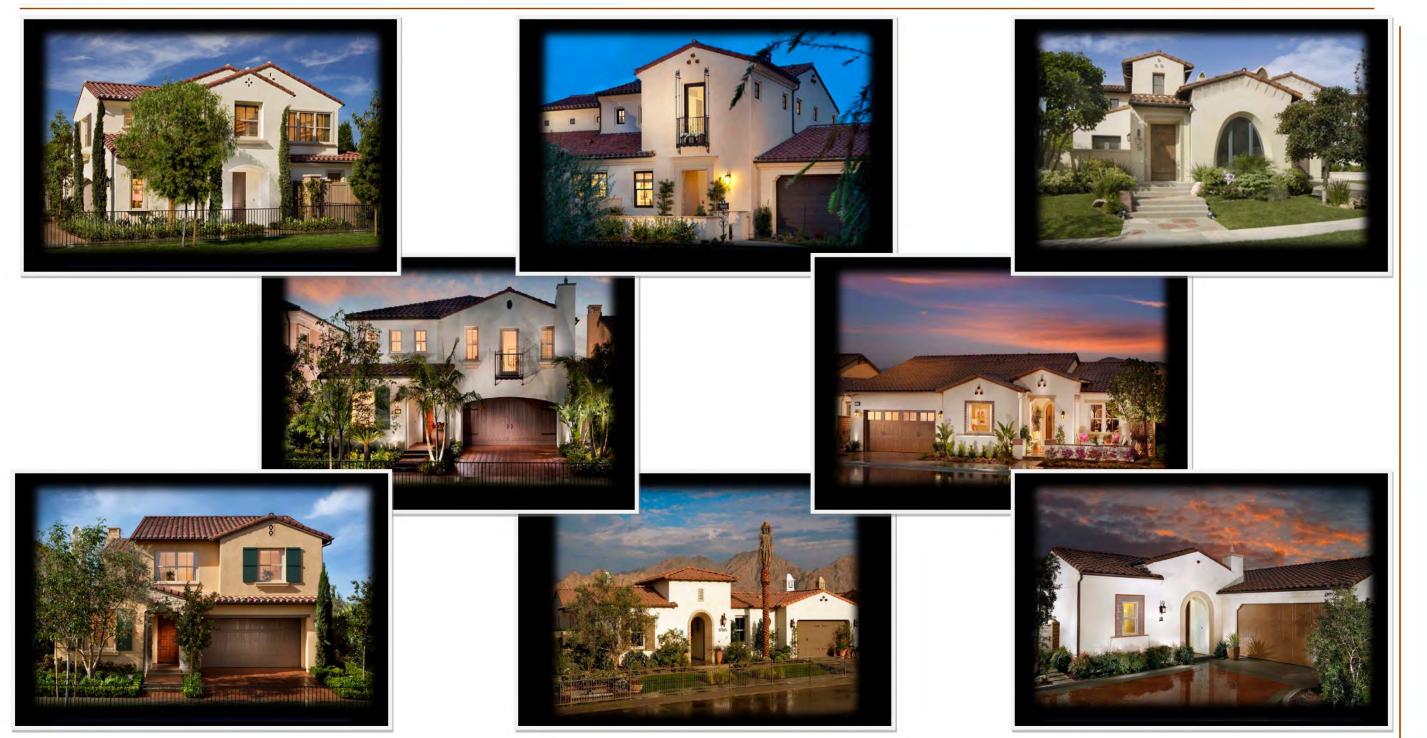


Figure 5.2-4

Spanish Style



Cottage

The term "Cottage" covers a broad range of stylistic ideals which includes Cape Cod, Bungalow, and European Romantic styles such as French, English, and Italian interpretations. The common thread tends to be the impression of a small, informal residence constructed of humble materials. The use of indigenous resources such as stone and heavy timber, clad in wood or plaster, all finished in weathered sienna tones, ground the style's unassuming presence. High- or low-pitched roofs with flat tiles, tall narrow window openings, and extensive use of shutters complete the style's charm. The windows are occasionally rounded at the top with shutters echoing their shape. While the use of porches is common, they are not required to complete the composition. As shown in **Table 5.2-E** and **Figure 5.2-5**, below, elements common to the Cottage style include:

Table 5.2-E, Cottage Architectural Style Elements

Elements	Design Details
Design Features	Simple to complicated massing Horizontal lap, shingle, or stucco siding Porches of varying sizes and shapes Columns and posts of varying designs Wrought iron and pot shelves
Roofs	Low and high pitched gable, hipped, or gamble roofs Flat tile or composition roofing (terra cotta barrel hip & ridge tiles) Occasional use of dormer or varying size and design
Windows	Arched and rectangular windows Narrow and tall with varying patterns shapes and sizes
Colors	Lighter to middle earth tones Lighter trims White or beige window frames Contrasting colors at shutters Middle to darker tone roof
Accent Materials	Brick elements Stone elements Wood detail in gables





Figure 5.2-5

Cottage Style



Villa

This style pays homage to larger, more formal styles found throughout Italy that were occupied by the region's elite. Palladian architectural principles dominate while placing emphasis on symmetry, proportion, and orderly arrangements of columns, pilasters, and lintels, as well as the use of semicircular arches, which can dominate the building profile. Key visual components of this style include low-pitched, frequently hipped roofs, large projecting eaves supported by corbels, imposing cornice structures, tall first floor windows, and angled bay windows. As shown in **Table 5.2-F** and **Figure 5.2-6**, below, elements common to the Villa style include:

Table 5.2-F, Villa Architectural Style Elements

Elements	Design Details
Design Features	Precast columns Shutters Detailed trims and surrounds Corner columns Elaborate entry surrounds
Roofs	Low-pitched hipped roof Tiles (Barrel & 'S') Eaves with and without flat corbels
Windows	Windows on front elevation Arched top and rectangular windows Narrow and tall French doors
Color	Lighter to middle earth tones White or beige window frames Lighter trims and "stone"
Accent Materials	Stucco prominently utilized Precast "stone" mouldings





Figure 5.2-6



Monterey

In the early part of the eighteenth century, Californians sought to define an indigenous style of architecture by fusing local Spanish influences with Colonial designs from the east coast. Their search eventually led to the emergence of the Monterey style. This style was developed in Monterey, California, and can be traced back to as early as the mid-nineteenth century. A modified version of this style was revived from about 1920 to 1960, combining Spanish Colonial architecture with some elements of early New England colonial architecture. This Monterey Revival represents one of California's few native architectural styles. As shown in **Table 5.2-G** and **Figure 5.2-7**, below, elements common to the Monterey style include:

Table 5.2-G, Monterey Architectural Style Elements

Elements	Design Details
Design Features	Second floor balconies Two story rectilinear volume Simple wood posts and beams Verandas or porches
Roofs	Low-pitched gable-ended roofs (occasionally hipped) Shingle or tile- barrel, 'S,' or red clay tiles Tight rakes with extended eaves Roof overhang Simple front-to-back roof
Windows	Double hung windows Paired with false shutters/lowered shutters Vertical proportions Glazed doors
Color	☐ Light earth tones ☐ Contrasting accents
Accent Materials	Stucco, brick, or wood (clapboard) First and second floors frequently of different materials Stucco walls Simple details



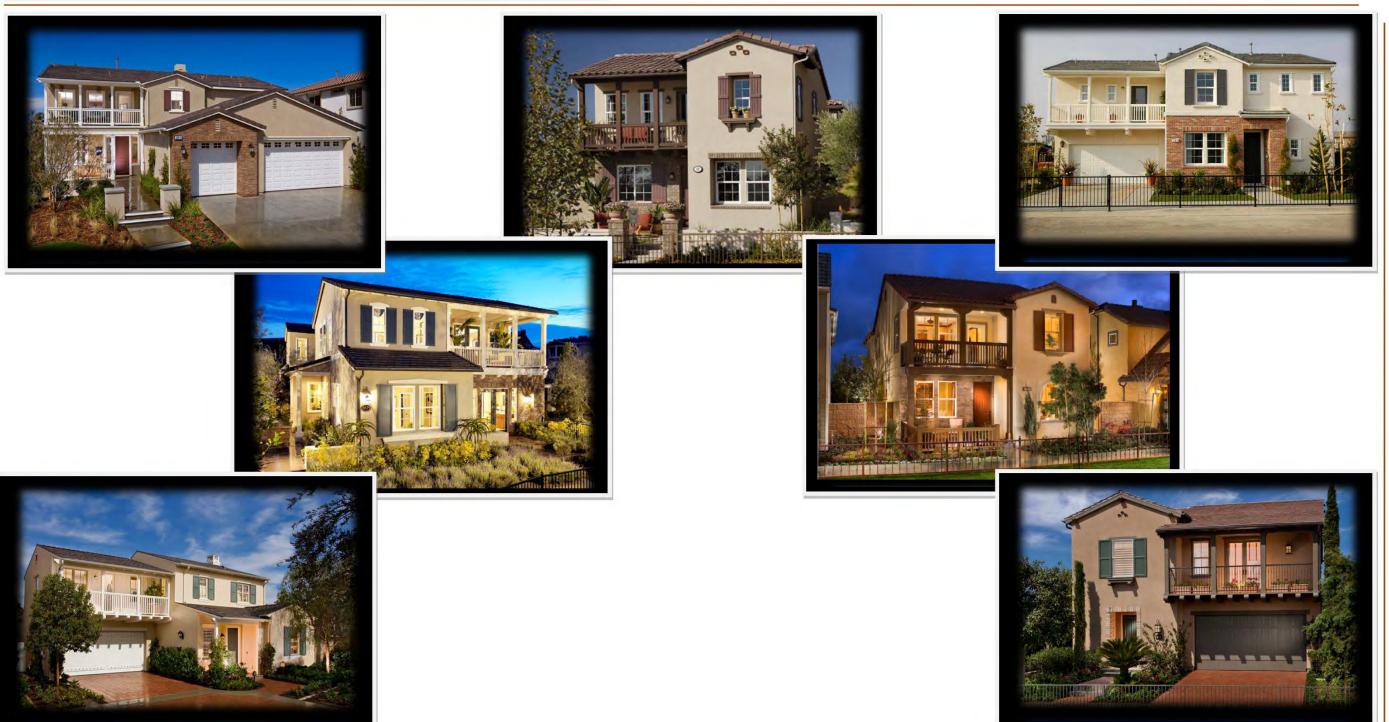


Figure 5.2-7

Monterey Style



5.2.3 Architectural Elements

This section discusses general attributes that are common to each of the seven architectural styles, yet it is the way that they are adapted and modified to suit a particular style that creates a richness of diversity in a master-planned community. Variety in residential housing types and building forms provides diversity and visual interest to the neighborhood street scene. Building massing, scale, and proportions of the elements such as roofs, walls, windows, doors, etc., lend balance and style. Below are requirements intended to achieve this balance.

A. Massing and Scale

Building mass and scale are two of the primary design components used to establish appealing communities and personable neighborhoods. Controlling the mass of the building through design articulation of the building facades, rooflines, and vertical and horizontal planes effectively reduces the visual mass of a building. Mass and scale are important design considerations during the development of street-friendly and pedestrian-scale architecture. Attention to front yard setbacks, building types, and architectural styles helps provide variation in the mass and scale of buildings. The following massing and scale criteria are intended to develop variation in appearance and sense of individuality for each home.

- The size and scale of the building should be proportionate to the size of the lot and the building's setting.
- Combinations of one- and two-story forms are encouraged where feasible.
- Roof lines should be varied where appropriate from building to building in terms of massing, color, and roof selection.
- Homes designed with entries, windows, front porches, and living areas placed near the street, with garages set back greater than the front yard living area, are encouraged.
- The addition of balconies or porches is encouraged to improve the scale and massing of two-story single-family homes.
- Details, such as porches, doorways and windows, should be in proportion to the overall massing of the building.

B. Materials

The use of building materials and colors plays a key role in developing community character and ambiance. The character and personality of a neighborhood is significantly affected by the composition of the materials and colors of the homes within it. Consideration must be given to selecting a variety of complementary color and material palettes along any given street. The selected architectural styles for Cimarron Ridge allow for a variety of colors and materials.

Specifically, building materials within Cimarron Ridge should conform to the following requirements:



Roof

Clay, concrete, or an approved composite (appropriate in thickness and appearance) roof tile. Flat, one piece "S" or traditional barrel shapes.

Exterior Walls

- Stucco.
- Stone, brick and wood siding as wall materials or accent.

Doors

Stained or painted. Authentic styles to structure.

Windows

Vinyl or aluminum.

Accent Materials

- Masonry Trim: Pre-cast stone, smooth cut stone, and brick used as a base. To be used at entrances and prominent corners depending on the architectural theme.
- Wood Trim: Painted at walls, gates, doors, windows, eaves, balconies, out lookers and pickets. Significant in scale (i.e., 3x material and appropriate to building character).
- Ironwork: Ornamental metalwork at gates, window grilles, balcony rails and fencing where appropriate. Significant in scale and shape while detailed authentically.
- Foam pop-outs and accent materials.

C. Colors

Building colors are an important element when used to achieve a true representation of a specific architectural style. Colors should be authentic as possible when compared to the traditional color palette of a selected style. Consideration may also be given to colors available in the contemporary market that are complementary to the overall community theme and the individual structure's specific architectural style.

Specifically, color materials within Cimarron Ridge should conform to the following requirements:

Roof and Materials

Natural colors to emulate the appropriate historic-authentic style (i.e., concrete).

Walls

Deep to light value "earth" and natural toned colors.

Accents

Traditional and historical colors that complement the palette of main house.



D. Porches and Balconies

The incorporation of front porches is not required but is encouraged. Front and rear balconies are also encouraged for both aesthetic and practical reasons. Porches and balconies integrate indoor and outdoor living spaces, allow for elevated garden locations that provide light and air to the interior, and provide shelter. Porches and balconies break up large wall masses and reduce the scale of the house at the street and sidewalk edge. Along ambiance streets, front porches add an element of personal scale and ambiance, where neighbors can socialize with one another. Porches and balconies in Cimarron Ridge should conform to the following standards:

- The use of front porches with a usable width of at least 5 to 6 feet is encouraged along residential streets.
- A porch railing should be included in some instances to define the space and add architectural detail to the porch and front elevation of the house; however, a railing is only needed with certain architectural styles.

E. Garages

To achieve an attractive street scene, particular attention should be given to the design, placement, and orientation of garages in all residential neighborhoods. While maintaining an awareness of the contemporary market and the targeted market segment, an effort should be given to minimize the impact of the garage on the residential neighborhood. Depending upon lot size, this can be accomplished through a variety of methods including:

- Side loaded or swing-in loaded garage orientations.
- Garage setbacks greater than the front yard living area setback.
- Tandem garages.
- Garage door design considerations that include recessed doors, creative panel designs, windows and color.
- Where provided, garage door windows should correspond to the window forms of the house.

Figure 5.2-8 is a compilation and sampling of images that take advantage of a reduced setback to the living area while maintaining a 20-foot garage face setback. As shown in the images below, the reduced setback to the architecture allows the architecture to come forward while the garage is recessed. This accentuates the architecture and reduces the impact of the garage face to the street scene. This is a vital element of the Cimarron Ridge Specific Plan Street scene and will set the tone for the massing and design of the community.



F. Rear and Side Articulation/Façade Treatment

The design consideration and treatment of the rear and side facades of residential buildings, particularly those facing onto spaces visible to the public, has become recognized as an important element in the success of a community's visual character and environment. Where such conditions occur, the builder should enhance the rear and side facades of homes backing onto publicly visible areas to improve the community appearance. Enhancement considerations include:

- Foam window trim or shutters where not publicly visible.
- Rear balconies or porches.
- Other design details and amenities, as appropriate to the architectural style.

G. Floor Plans and Elevations

Each Planning Area shall be required to have a minimum number of different floor plans, different front elevations, and different rear elevations, with different color schemes as identified below:

- Planning Areas with 50 to 99 units: There shall be 3 floor plans and 3 elevations.
- Planning Areas with 100 or more units: There shall be 4 floor plans and 4 elevations. There shall be 3 different color schemes per elevation.
- Reverse floor plans should be included where possible to add variety to the street scene.

H. Single Story Elements

The introduction of single-story elements is encouraged in Planning Area 2 to add variety to the street scene and help establish pedestrian scale. Where appropriate to the architectural style, single-story elements should include:

- Porch.
- Porte-cochere.
- Pop-out gable element (enclosed or open).









Figure 5.2-8

Garages That
Are Setback
Farther Then
The Front Yard
Living Area

GARAGE SETBACK

6.0 ADMINISTRATION & IMPLEMENTATION PLAN



6.0.1 Introduction

The Cimarron Ridge Specific Plan will be implemented through the processing of numerous discretionary entitlements. The implementation process provides the mechanism for reviewing precise development plans and ensuring development consistency with the Specific Plan's objectives. This chapter also provides procedures for determining substantial conformity and, if necessary, amendments to the Cimarron Ridge Specific Plan. All development within the Cimarron Ridge community is subject to the implementation procedures described in this chapter. Additional information on implementation, including potential funding mechanisms, maintenance responsibilities, and monitoring activities, are also presented in this chapter.

6.1 IMPLEMENTATION PLAN



6.1.1 Introduction

Pursuant to Government Code Section 65451, all specific plans must contain a "program of implementation measures including regulations, programs, public works projects, and financing measures" necessary to implement the specific plan. This chapter defines the administration of the Cimarron Ridge Specific Plan and the implementation process for approving new development, including the accompanying financing, phasing, and other necessary programs.

6.1.2 General Administration

Responsibility

The Community Development Director shall be responsible for the administration and enforcement of the Cimarron Ridge Specific Plan in accordance with the provisions of this Specific Plan, the State of California Government Code, and the Subdivision Map Act, including processing assistance, interpretations of provisions, approval of administrative permits, issuance of permits, site development plans, approval of temporary or interim uses, specification of conditions of approval, and authorization of certificates of occupancy for new development.

The Planning Commission shall be responsible for recommending approval to the City Council regarding any subdivision, conditional use permit, or variance application; recommending Specific Plan amendments to the City Council; and acting on appeals from decisions by the Community Development Director.

The City Council shall be responsible for approving or denying amendments to the Specific Plan and acting on appeals of decisions by the Planning Commission.

Applicability

All development and proposed uses in the Specific Plan shall comply with the requirements and standards set forth in this Specific Plan. Where conflicts exist between the standards set forth in this Specific Plan and those found in the Riverside County Zoning Ordinance No. 348, as adopted by the City of Menifee (Menifee Zoning Code), the standards in the Specific Plan shall apply. Standards not addressed in this Specific Plan are subject to the Menifee Zoning Code.

Severability

If any chapter, section, subsection, sentence, clause or phrase of this Specific Plan or future amendments or additions hereto, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this plan.



Interpretation

If there is a question or ambiguity regarding the interpretation of any provision of this Specific Plan, the Community Development Director has the authority to interpret the intent of the provision, using the spirit and intent of the Cimarron Ridge Specific Plan as a guide.

The Community Development Director may, at his/her discretion, refer interpretations to the Planning Commission for consideration and action. Such a referral shall be accompanied by a written analysis of issues related to the interpretation. All interpretations made by the Community Development Director and decisions of the Planning Commission may be appealed per applicable provisions of the Zoning Code.

6.1.3 Specific Plan Modifications

Modifications to the text and exhibits may be necessary during the development of a project. Any modifications to the Specific Plan shall occur in accordance with the amendment process described below. Depending on the nature of the proposed amendment, additional analysis or a supplemental EIR may be required, pursuant to the California Environmental Quality Act.

Classification

Changes to the adopted Specific Plan shall be classified by the Community Development Director as either an amendment or Specific Plan Substantial Conformance. The applicant shall submit a detailed justification explaining why an amendment or Substantial Conformance revision is warranted and any exhibits deemed necessary by the Community Development Director.

Amendments

Amendments as defined in this Specific Plan shall be processed according to the provisions of the Zoning Code. An amendment, as defined in this Specific Plan, is any of the following:

- Changes to exhibits or text that alter the intent of the Specific Plan
- Changes to development standards and/or design guidelines, which, if adopted, would substantially change the physical character of the Specific Plan.
- A new type of land use that is not specifically discussed in this Specific Plan and that is not of the same intensity and character.
- Any change that would trigger the preparation of a supplemental EIR.
- Changes in land use boundaries that result in an increase of more than the maximum allowable development potential, as analyzed in the certified EIR prepared for the Cimarron Ridge Specific Plan.



Specific Plan Substantial Conformance

A Substantial Conformance application may be approved by the Community Development Director with input from relevant departments. Substantial conformance allows for the administrative approval and interpretation of minor modifications to the Specific Plan text, graphics, and/or project design that do not change the meaning or intent of the Specific Plan. Through the review and approval process, a project may be found in substantial conformance with the provisions of this Specific Plan and may be approved, conditionally approved, or denied by the Community Development Director under the circumstances listed below. The Community Development Director shall also have the discretion to refer any such request for substantial conformance to the Planning Commission for interpretation and action:

- Simple edits or clarifications to text, graphics or figures that do not change the meaning or intent of the Specific Plan.
- Revisions in the configuration, orientation, and size of building footprints, parking areas, recreational amenities, drainage areas, and landscape areas.
- Shifts in internal road alignments, widths, streetscape amenities, and access points that would not substantially alter the land use or circulation system set forth in this Specific Plan.
- Changes to the locations and sizes of infrastructure systems, including drainage, grading, water, and wastewater plans that would not substantially alter the plans set forth in this Specific Plan, provided the changes can be supported by technical studies reviewed and approved by the city.
- Modifications of design elements such as paving treatment, colors, architectural details, signs, landscaping, fencing, lighting, and entry treatments as long as the Community Development Director finds the change to be compatible with previous developments/approvals.
- Changes to the Phasing Plan provided that the Community Development Director determines that infrastructure is available and constructed to serve that phase and that any mitigation measures linked to that phase, location, or level of development are implemented.
- A new type of land use that is not specifically discussed in this Specific Plan but that is similar in character and intensity to those listed in the Specific Plan.
- Shifts in the number of dwelling units between Planning Areas that do not increase the overall number of dwelling units or increase the density above 5.0 dwelling units an acre for any individual Planning Area.

6.1.4 Implementation and Approval Process

Approval of the Cimarron Ridge Specific Plan indicates acceptance by the City of Menifee City Council of a general framework of development for the approximately 240-acre Project site. Part



of that framework establishes specific development standards that constitute the zoning regulations for the Cimarron Ridge Specific Plan. It is further anticipated that this Specific Plan will be implemented through a series of final tract maps, and site plans which shall be reviewed and approved by the Planning Department/Community Development Director and the appropriate hearing body to ensure consistency with this Specific Plan.

Pre-Application Conference

A pre-application conference with the Community Development Director or their designee should be held before an application for a proposed project in the Specific Plan can be filed and accepted for processing. Representatives from the various City departments may be invited to attend the conference to provide input at the discretion of the Community Development Director. Multiple meetings may require the submittal of a deposit to cover staff time.

Subdivision Maps and Final Maps

Subdivision maps are employed to implement a specific plan by subdividing land into smaller parcels. The City of Menifee adopted Riverside County Ordinance No. 460, which includes a comprehensive list of required information for subdivision maps.

The subdivision map process for Cimarron Ridge may involve the preparation of a Tentative Parcel Map (TPM) and a Tentative Tract Map (TTM). The intent of the TPM is for financing and land conveyance purposes only; no infrastructure improvements, building and/or grading permits shall be issued for lots within the TPM. The individual planning areas will require a TTM showing each planning area, internal lots, and street layout. The TTM may be prepared by the developer and/or the builder. In the absence of a specific builder, the master developer may choose to prepare the site plan and TTM to accommodate a specific size of homesite. Additionally, the owner may choose to file a conveyance or financing map and receive tentative map approval and record a final conveyance map.

During the site plan and TTM stage of the development process, the final number of dwelling units for a particular Planning Area may differ from those identified in the Specific Plan, so long as the density falls within the range specified by the land use designation. Furthermore, an individual site plan or TTM may fall outside of the specified density range, so long as the total density for a particular Planning Area falls within the range specified by the land use designation. However, the overall number of dwelling units may not increase and the density for an individual planning area may not exceed 5.0 dwelling units an acre.

After a subdivision map or a site plan receives its tentative approval, the applicant is given a period of time to provide the final improvement plans for streets, utilities, grading, landscaping and all final conditions of approval prior to commencing construction.



Administrative Review and Plot Plans

Applications that comply with the provisions of the Specific Plan and do not require the approval of a public use permit or conditional use permit may be approved or conditionally approved by the Community Development Director through approval of a plot plan. For the purposes of this Specific Plan, all of the "Principal Permitted Uses" and "Accessory Permitted Uses" identified in Chapter 4.0, Development Standards are considered permitted uses that would require the approval of a plot plan.

Plot plans are similar to subdivision maps, in that a plot plan also implements a specific plan; however, a plot plan provides a detailed description of how each parcel will be developed. During the plot plan review, the Community Development Director, or his or her designee, shall review applications for compliance with the development standards listed in *Chapter 4.0* of this Specific Plan. Applications that comply with the provisions of the Specific Plan and do not require the approval of a public use or conditional use permit may be approved or conditionally approved by the Community Development Director through approval of a plot plan. The plot plan process shall be the same as that outlined in Section 18.30 of the Zoning Code.

The following additional applications may not be identified as "Principal Permitted Uses" or "Accessory Permitted Uses" in Chapter 4.0, Development Standards, but they are considered ancillary to the inherent land uses. The following applications may be submitted in conjunction with the plot plan application, and may be approved or conditionally approved by the Community Development Director through approval of said plot plan:

- Park design and architecture.
- Landscape plans and selected landscape materials for all open space areas.
- Entry monumentation.
- Private property landscape plans and selected landscape materials.

Public Use Permits

Uses requiring the approval of a public use permit shall be the same as those listed in Section 18.29 of the Zoning Code. In addition, uses requiring a public use permit shall be subject to the filing, required findings, notification, hearing and appeal procedures identified in Section 18.29 of the Zoning Code. There are no uses currently proposed in the Specific Plan that would require a public use permit.

Conditional Use Permits

Conditional use permits allow the city to consider special uses that are not allowed as a matter of right within a zoning district, thereby providing flexibility within a Zoning Ordinance.



Consideration of a conditional use permit is a discretionary action. Uses requiring a conditional use permit shall be the same as those listed in Section 18.28 of the Zoning Code. In addition, uses requiring a conditional use permit shall be subject to the filing, required findings, notification, hearing and appeal procedures identified in Section 18.28. There are no uses currently proposed in the Specific Plan that would require a conditional use permit.

Architectural Review

The Cimarron Ridge Specific Plan provides builders and developers with flexibility with respect to architectural styles and being able to incorporate a wide range of complementary building designs and architectural styles. To ensure the creation of a high-quality development that exhibits cohesive community character and complementary building design, all applications for a plot plan, public use permit, or conditional use permit shall be subject to the architectural review process.

An application for architectural review shall be filed with the Planning Division in a manner prescribed by the Community Development Director, including, but not limited to, plans, elevations, and materials and color boards. The Community Development Director or designee will review all development applications and ensure the proposed Project meets the intent of the development standards and design guidelines.

The decision of the Community Development Director or designee shall be final and effective 14 days after a written determination has been made unless, within said time, a written appeal to the Planning Commission is filed by the applicant, property owners subject to the architectural review, or by any member of the City Council or Planning Commission. Appeals shall be undertaken in compliance with the procedures outlined in the Zoning Code.

All applications for a plot plan, conditional use permit, or public use permit shall be required to have a minimum number of different floor plans, different front elevations, and different rear elevations for each Planning Area as identified below:

- Planning Areas with 50 to 99 units: There shall be 3 floor plans and 3 elevations.
- Planning Areas with 100 or more units: There shall be 4 floor plans and 4 elevations.
- There shall be 3 different color schemes per elevation.
- Reverse floor plans should be included where possible to add variety to the street scene.

The Community Development Director may refer any item to the Planning Commission at their discretion.

6.2 FINANCING PLAN



6.2.1 Introduction

Various techniques are available for financing the required improvements for the Cimarron Ridge Specific Plan. A detailed financing plan should be prepared in order to successfully implement the improvements and programs proposed by the Specific Plan. Along with establishing specific goals and policies, the financing plan should analyze a series of methods to finance infrastructure and other improvements, recommend preferred alternatives, and develop a process for enacting financing methods.

The appropriate mechanism for each particular improvement shall be tied to the phasing, established conditions of approval, and site plan/design review approval. The following is a summary of possible methods that could be used to finance Specific Plan improvements. There may be other sources available to finance improvement projects, such as government grants, or various types of bonds not listed below.

6.2.2 Financing Plan

The developer, or guest builder, shall be responsible for financing construction of the infrastructure improvements required to support the Project, such as perimeter and internal streets, water lines, sewers, and storm drains. All necessary infrastructure improvements shall be developed in conjunction with the approved phasing plan. The financing of construction, operation, and maintenance of public improvements and facilities will include funding through a combination of financing mechanisms. However, the developer or builder shall be ultimately responsible for all fair share costs associated with implementing the Project, including but not limited to the costs of providing infrastructure and complying with mitigation measures, conditions of approval, and other requirements of the Project.

Financing may involve a combination of impact fees and exacting, special assessment districts, landscaping and lighting districts, and other mechanisms agreed to by the developer and the city as noted below. Developer- or builder-funded improvements may be subject to a reimbursement agreement or credits against fees pursuant to provisions of a development agreement or conditions of approval. The city and developer or builder will cooperate to ensure that the public facilities are built in accordance with all requirements of the Specific Plan and EIR. A development agreement and conditions of approval may be used to facilitate this process.

6.2.3 Developer Funding

In many cases, certain on-site facilities are tied directly to individual projects. In these cases, it is reasonable to expect the developer, guest builder, or property owner to pay the entire cost of the facility in order to secure development rights. On-site local streets, utility connections from main trunk lines, and drainage facilities are good examples of facilities that are normally required concurrent with development of an individual parcel funded by the developer or guest builder.



6.2.4 Special Assessment Districts

A special assessment district is a type of benefit district that requires a vote by the property owners to encompass a defined and limited geographic area. The city or other agencies may form a special assessment district under one of several different statutory acts to construct public improvements such as streets, storm drains, sidewalks, streetlights, sewers, parks, and other similar capital facilities. The special assessment districts can issue bonds to finance those improvements and levy a special assessment to pay debt service on those bonds.

A special assessment district may fund improvements within the entire Specific Plan area or smaller areas in the Specific Plan where special improvements are constructed that directly benefit only certain property owners. Special assessment districts may only be used to pay for projects that are of specific and direct benefit to the property owner being assessed. The amount of the assessment must directly relate to the amount of benefit received by the property owner.

6.2.5 Landscaping and Lighting Districts

Landscaping and lighting districts (LLD) may be used for maintenance and servicing of landscaping and lighting through annual assessments on benefiting properties. LLDs may also provide for maintenance of appurtenant features, including curbs, gutters, walls, sidewalks or paving, and irrigation or drainage facilities.

6.2.6 Community Facilities Districts and Mello-Roos

The Mello-Roos Community Facilities Act of 1982 allows the creation of special districts authorized to levy a special tax and issue tax exempt bonds to finance public facilities and services. A community facilities district may be initiated by the legislative body or by property owner petition and must be approved by a 2/3 majority of property owners or registered voters (if there are more than 12 registered voters living in the area). Because there is no requirement to show special benefit, Mello-Roos levies may be used to fund improvements of general benefit, such as fire and police facilities, libraries, and parks, as well as improvements that benefit specific properties. The provision also allows the reallocation of cost burdens to alleviate untenable burdens on specific properties.

6.2.7 Other Funding Sources

Other sources may be available to finance improvement projects, such as government grants, private developer coalitions, or various types of bonds not listed above.

6.3 MAINTENANCE PLAN



6.3.1 Introduction

Maintenance of open space areas, recreational facilities, and major roadway landscaping, among other areas, is of utmost importance to the performance and appearance of Cimarron Ridge. Therefore, a comprehensive maintenance plan will be established for standards as well as guidance for the upkeep and governance of public common areas within the Specific Plan.

6.3.2 Apportionment of Costs for Maintenance of Common Areas

In order to ensure timely commencement and sufficient funding for maintenance of public facilities and common areas, the Specific Plan will annex into an existing maintenance organization, or into an active management organization such as a community-wide maintenance district or a neighborhood homeowners association (HOA). This maintenance district will be empowered to apportion costs for shared public facilities and common area maintenance within the Specific Plan and/or respective phase of the Specific Plan.

Further, prior to final map approval, the developer will provide a master maintenance authority with enumerated responsibilities.

6.3.3 Master Area Maintenance

Common areas such as pocket parks, neighborhood parks, water quality basins, open space areas and landscaped areas are identified in the Specific Plan as being available for the benefit of all residents of the Specific Plan area and to the public. Such common areas shall be maintained either by a public/private entity such as a landscaping and lighting district, or by an association which includes as its participating owners all property within the Specific Plan, and the responsible agency shall assume maintenance responsibility for such area. The publicly accessible 10.9-gross acre park shall be maintained by a public agency or public maintenance organization and not an HOA.

6.3.4 Specific Facilities Maintenance

In residential areas of the Project, smaller associations may be formed to assume ownership and maintenance responsibility for common areas and facilities that benefit only the residents in those areas. Private open space areas and private roadways are examples of facilities that could come under the jurisdiction of a neighborhood HOA.

6.3.5 Project Roadways and Roadway Landscaping

The site is currently within the boundaries of the Landscape and Lighting Maintenance District 89-1C (L&LMD 89-1) and County Service Area (CSA) 145. However, the Project will detach from L&LMD 89-1C and may annex into a new citywide maintenance community facilities district CFD in lieu of the L&LMD to provide maintenance services to certain approved public improvements.



All public Project roadways will be designed and constructed to standards stated in this Specific Plan and will, therefore, be entered into the city system of roads for operation and maintenance as approved by the City Council. Any private roads or accesses will be maintained by an association or other public/private entity, as described above.

Roadway landscaping within the right-of-way (such as the enhanced parkways), landscaping within the raised medians, and any hardscaping outside of any roadway right-of-way shall be maintained by a public/private entity or other master association.

6.3.6 Private Area Maintenance

Front yard areas that are open to the street shall be maintained by the homeowner.

GLOSSARY



Glossary

The following terms are use in this document:

California Room A built-in covered patio incorporated into the house design and roof line.

California Rooms are located at the rear of the home, are open to the

outdoors, and may be enclosed on up to three sides.

Cimarron Ridge The approximately 240-acre Cimarron Ridge Specific Plan.

City The City of Menifee.
County Riverside County.

Dwelling unit (DU) One or more habitable rooms (including living, sleeping and sanitary

facilities and no more than one kitchen) which are intended or designed

for occupancy by a single household.

Easement The granting of one or more property rights by the property owner for use

by the public a corporation or another person or entity.

Elevation An external building façade, as in front, side or rear elevations. In the case

of single-family dwellings, these correspond with the relationship of the

building to the property line of the lot.

Home A for-sale product.

Homeowners Association

(HOA)

An organization formed to manage property for more than one owner.

Land Use Plan The Cimarron Ridge Land Use Plan (as shown in **Figure 3.1-2**).

Medium Density Residential

(MDR)

Single-family detached residences with a density range of 2.1 to 5 dwelling

units per acre.

Multi-Generational Suite Living areas connected to the home structurally and through an entrance

from the main home, although a separate exterior door is allowable. Multigenerational suites may include a sleeping area, sitting area, kitchenette

and closet.

Neighborhood Parks Parks that include tot lots, free play, and flex play area. They also play an

important role in creating individual neighborhood identity and place

making.

Planning Area A designated area made up of multiple parcels.

Project The proposed Cimarron Ridge Specific Plan.

Project Area The approximately 240-acre site and the immediately surrounding land

uses to the north, south, east and west.

Sidewalk Public walkway within the public right-of-way.



Single-Family Detached A residential product type.

The approximately 240-acre Cimarron Ridge Specific Plan Project site (as Site

shown in Figure 3.1-1).

Specific Plan The Cimarron Ridge Specific Plan.

The visual image one perceives looking down the front-facing street of a Streetscape

neighborhood, including homes, sidewalks, streets and landscape.

Trail A designated corridor that provides recreational alternative transportation.

ACRONYMS AND ABBREVIATIONS



Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document:

EMWD Eastern Municipal Water District

HOA homeowners association

I-215 Interstate 215

L&LMD 89-1 Landscape and Lighting Maintenance District 89-1C

MDR Medium Density Residential

NPDES National Pollution Discharge Elimination System

OS-C Open Space-Conservation
OS-R Open Space Recreation

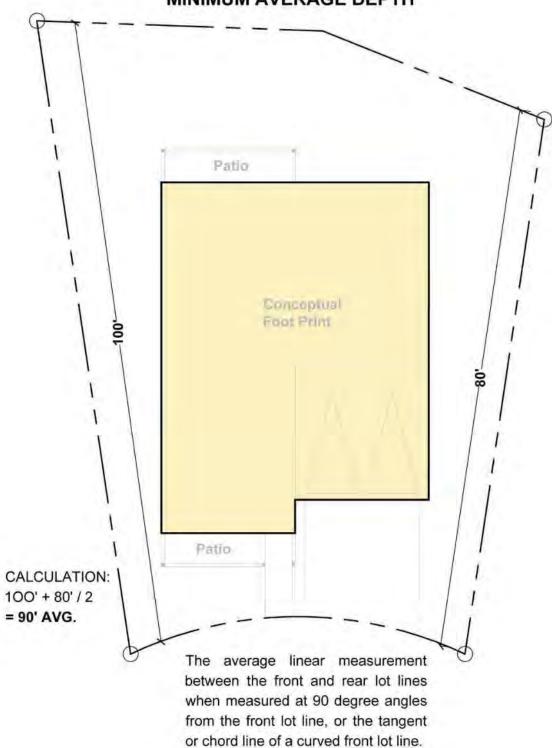
SCE TPM Southern California Edison Tentative parcel map

TTM Tentative tract map

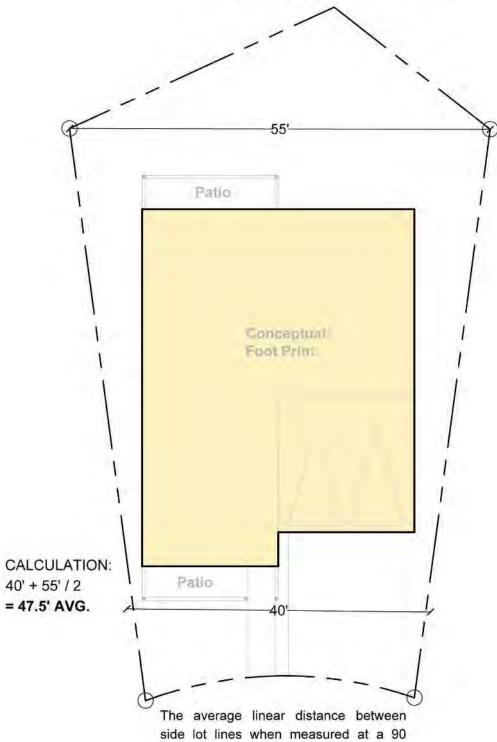
APPENDIX C



MINIMUM AVERAGE DEPTH



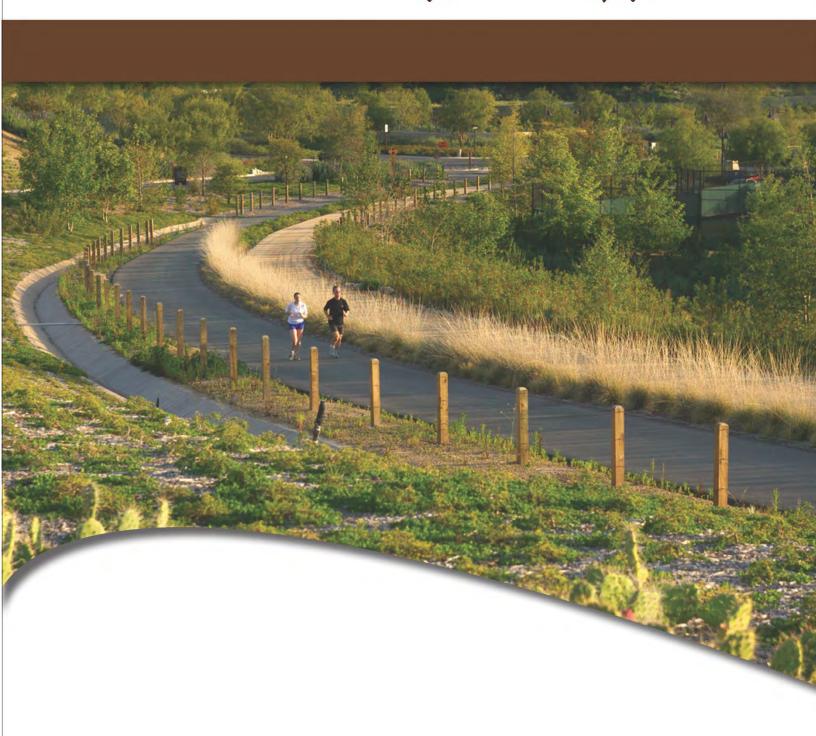
MINIMUM AVERAGE WIDTH



The average linear distance between side lot lines when measured at a 90 degree angle to the front lot line. If the lot has an irregular shape, lot width may be determined by calculating the average horizontal distance between the longer dimensional lot lines where the building envelope is located.



A Park Community for all to enjoy!





AIRPORT LAND USE COMMISSION MEETING **MINUTES December 14, 2023**



12-19-23

COMMISSIONERS PRESENT: Steve Manos, Russell Betts, John Lyon, Vernon Poole, Richard Stewart,

Michael Geller, Michael Lewis (alternate for Steven Stewart)

Steven Stewart COMMISSIONERS ABSENT:

2.0 **PUBLIC HEARING: CONTINUED ITEMS**

2.1 Staff report recommended:

If the Commission finds, based on the information presented, that an intolerable hazard to flight risk does not exist, then it is recommended that the Commission find the project consistent subject to conditions. Alternatively, if the Commission finds that an intolerable hazard to recommended that the Commission find the project inconsistent.

Staff recommended at hearing:

Continuance off calendar per the applicant's request, in order to complete the peer review and CEQA process of the mechanical turbulence study.

ALUC Commission Action:

Continuance off calendar per the applicant's request, in order to complete the peer review and CEQA process of the mechanical turbulence study. (Vote 7-0)

Motion: Michael Geller Second: Russell Betts

ZAP1028PV23 - Landstar Companies (Representative: Johnson Aviation) - City of Perris Case Nos. PLN22-05046 (DPR22-00005

[Development Plan Review], TPM38412 [Tentative Parcel Map]). A proposal to construct two industrial warehouse buildings with mezzanines totaling 867,070 square feet and a 343 tractor-trailer truck yard (on a separate 22.88 acre parcel) on a total 82.83 acres, located southerly of Ellis Avenue, westerly of Case Road, easterly of Goetz Road. The applicant also proposes a tentative parcel map merging the site into two parcels (Airport Compatibility Zones A, B1, flight risk does exist, then it is B2, C, and D of the Perris Valley Airport Influence Area, and Zone E of March Air Reserve Base/Inland Port Airport Influence Area). Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rivco.org

VIDEO: 1

A video recording of the entire proceedings is available on the ALUC website at www.rcaluc.org. If you have any questions please contact Barbara Santos, ALUC Commission Secretary, at (951) 955-5132 or E-mail at basantos@rivco.org

AIRPORT LAND USE COMMISSION MEETING MINUTES December 14, 2023

3.0 PUBLIC HEARING: NEW CASES

None

4.0 PUBLIC HEARING: MISCELLANEOUS ITEMS

None

5.0 ADMINISTRATIVE ITEMS

- 5.1 <u>Director's Approvals</u> Information Only
- 5.2 Update March Air Reserve Base Compatibility Use Study (CUS)

Simon Housman, Project Director for the MCUS presented Power Point slides updating the Commission regarding the Cumulative Impact Solar Glare Study Analysis Report.

6.0 APPROVAL OF MINUTES

Commissioner Michael Lewis motioned to approve the November 9, 2023 minutes. Seconded by Chair Manos. Abstain: Commissioner Geller (Vote 6-0)

7.0 ORAL COMMUNICATION ON ANY MATTER NOT ON THE AGENDA

None

8.0 COMMISSIONER'S COMMENTS

None

9.0 ADJOURNMENT

Steve Manos, Chair adjourned the meeting at 10:07 a.m.

Y:\ALUC COMMISSION - PUBLIC HEARING\ALUC Minutes\2023 Minutes\Minutes 12-14-23.doc

VIDEO: 2

A video recording of the entire proceedings is available on the ALUC website at www.rcaluc.org. If you have any questions please contact Barbara Santos, ALUC Commission Secretary, at (951) 955-5132 or E-mail at basantos@rivco.org