RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM:	**2.1** ~~3.1~~
HEARING DATE:	**December 15, 2022 (continued from** November 10, 2022**)**
CASE NUMBER:	ZAP1544MA22 – PR Partners, LLC (Representatives: Mike Naggar & Associates)
APPROVING JURISDICTION:	City of Perris
JURISDICTION CASE NO:	PLN19-00012 (Specific Plan Amendment), PLN19-05287 (Zone Change), DPR19-00012 (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
Land Use Policy:	Zones B1-APZ-II, C1
Noise Levels:	60 - 70 CNEL from aircraft

MAJOR ISSUES: The Air Force provided comments on November 8, 2022, for the November 10 ALUC hearing (which are analyzed in this staff report). The applicant provided a response memo addressing these comments on November 9 and submitted them to the Air Force for review. The Air Force replied requesting additional time to review the applicant's response memo. At the time this staff report was written, the Air Force has not completed its review of the project.

RECOMMENDATION: Staff recommends that the Commission CONTINUE the matter to the *January 12, 2023,* ~~December 15, 2022~~ meeting, pending completion of the Air Force review of the project.

PROJECT DESCRIPTION: A proposal to construct a mixed-use industrial/commercial development including a 304,572 square foot e-commerce warehouse building with mezzanines, a 2,010 square foot restaurant building with drive-thru, and a 4,950 square foot retail/restaurant building with drive-thru on a 16.12 acre parcel. The applicant also proposes amending the Perris Valley Commerce Specific Plan (SPA No. 13) and changing 14.1 acres of the site's zoning from Commercial to Light Industrial (with 1.99 acres of the site remaining Commercial).

The Commission previously found consistent on this site ZAP1390MA19, a proposal to construct a 347,919 square foot industrial e-commerce and warehouse building on 16.1 acres, and a proposal to amend the Perris Valley Commerce Center Specific Plan, and change the site's zoning from Commercial to Light Industrial.

PROJECT LOCATION: The site is located on the southwest corner of Perris Boulevard and Ramona Expressway, within the City of Perris, approximately 8,300 feet southeasterly of the southerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

Non-Residential Average-Acre 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 and C1. Zone B1-APZ-II limits average intensity to 50 people per acre, and Zone C1 limits average intensity to 100 people per acre. Approximately 11.90 acres of the site are located within Zone B1-APZ-II and 4.22 acres are located within Zone C1.

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 ALUCP, the following rates were used to calculate the occupancy for the proposed project:

- E-Commerce – 1 person per 1,000 square feet,
- Warehouse – 1 person per 500 square feet,
- Office – 1 person per 200 square feet,
- Restaurant dining area – 1 person per 15 square feet,
- Restaurant kitchen area – 1 person per 200 square feet, and
- Retail – 1 person per 115 square feet.

The applicant proposes to construct a mixed-use industrial/commercial development including a 304,572 square foot e-commerce warehouse building with mezzanines, a 2,010 square foot restaurant building with drive-thru, and a 4,950 square foot retail/restaurant building with drive-thru on a 16.12 acre parcel, accommodating a total occupancy of 667 people, resulting in an average intensity of 41 people per acre for the entire site, which is consistent with the Zone B1-APZ-II average intensity criterion of 50 people per acre, and with the Zone C1 average intensity criterion of 100 people per acre.

A breakdown of use by Compatibility Zone includes the following:

- A portion of the project is located on 11.90 acres within Zone B1-APZ-II and includes 274,150 square feet of e-commerce warehouse area (no office area proposed), accommodating 274 people, resulting in an average intensity of 23 people per acre, which is consistent with the Zone B1-APZ-II average intensity criterion of 50 people per acre.

- The remaining portion of the project is located on 4.22 acres within Zone C1 and consists of: a portion of the main industrial building including 10,422 square feet of warehouse area,10,000 square feet of first floor office area, and 10,000 square feet of second floor office mezzanine area; a standalone 2,010 square foot restaurant building with an 8 car stack drive-thru which includes 1,206 square feet of dining area and 804 square feet of kitchen area; a 4,950 square foot mixed retail/restaurant building with 14 car stack drive-thru which includes: 1,050 square feet of dining area and 700 square feet of kitchen area (fast food restaurant), 960 square feet of dining area and 640 square feet of kitchen area (inline restaurant), and 1,600 square feet of retail area; accommodating a total occupancy of 393 people, resulting in an average intensity of 93 people per acre, which is consistent with the

Zone C1 average intensity criterion of 100 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 in the absence of more precise data). Based on the number of parking spaces (220 spaces) and truck trailer spaces (61 spaces) the total occupancy would be estimated at 391 people for an average intensity of 24 people per acre, which is consistent with the average intensity criterion of Zone B1-APZ-II of 50 people per acre, and with Zone C1 average intensity criterion of 100 people per acre.

Non-Residential Single-Acre Intensity: Compatibility Zone B1-APZ-II limits maximum single-acre intensity to 100 people, and Zone C1 limits single-acre intensity to 250 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 in each Compatibly Zone are as follows:

- The maximum single-acre intensity within Zone B1-APZ-II includes 43,560 square feet of e-commerce warehouse, accommodating an occupancy of 44 people, which is consistent with the Zone B1-APZ-II single acre intensity criterion of 100 people, as well as being consistent with the Air Force's Department of Defense Instruction No. 4165.57 with regard to intensity, which is limited to a maximum of 50 people in any given acre in APZ-II. A more detailed analysis is provided below in the March Air Reserve Base section of the staff report.

- The maximum single-acre intensity within Zone C1 includes 4,945 square feet of warehouse area (from the main industrial building) and the 4,950 square foot mixed retail/restaurant building with 14 car stack drive-thru which includes: 1,050 square feet of dining area and 700 square feet of kitchen area (fast food restaurant), 960 square feet of dining area and 640 square feet of kitchen area (inline restaurant), and 1,600 square feet of retail area, accommodating an occupancy of 186 people, which is consistent with the Zone C1 single acre intensity criterion of 250 people.

March Air Reserve Base/United States Air Force Input: The 2018 Airport Installation Compatible Use Zones (AICUZ) study identifies most of the project site as located within Accident Potential Zone II (APZ-II). Appendix A of the AICUZ provides Land Use Compatibility Tables for the APZs, which cite "warehousing" as a permitted use in APZ-II (and prohibited use in the Clear Zone [CZ]). The proposed project complies with the restrictions on permitted uses and lot coverage, and intensity limits. The Air Force understands the DoDI criteria as limiting intensity to a maximum of 50 people in any given acre of APZ-II. As noted above, the project would be expected to result in a single acre occupancy of 44 people in APZ-II, which would be consistent with the DoDI intensity maximum of 50 people in any given acre.

Given that the project site is located in Zones B1-APZ-II and C1 of the primary runway at March Air Reserve Base, the March Air Reserve Base staff was notified of the project and sent a package of plans for their review. **The Air Force provided comments on November 8, 2022, for the November 10 ALUC hearing. The applicant provided a response memo addressing these comments on November 9 and submitted them to the Air Force for review. The Air Force replied requesting additional time to review the applicant's response memo.** ~~(It is important to~~

~~note that under the original ALUC case ZAP1390MA19, the Air Force previously concurred with staff's recommendation of consistency for the project). At the time the staff report was prepared, comments from the Air Force were still pending.~~ **The following are the Air Force's November 8 comments ([AFC]), the applicant's November 9 response memo ([ARM]), and the ALUC staff analysis ([ALUC]).**

1. **[AFC] Location of Site in Runway 14/32 Accident Potential Zone II (APZII): In accordance with the latest Air Installation Compatible Use Zone (AICUZ) Study for MARB (published in 2018), the majority of the proposed site is contained in the Runway 14/32 APZII. The APZII area is also tracked as Compatibility Zone B-1 per the 2014 ALUC Land Use Compatibility Plan. Although the proposed 40-foot maximum height of the warehouse structure is permissible as per applicable Department of Defense (DoD) standards, Base maintains an overall heightened level of concern due to the ongoing increase of large-scale warehouse-type developments proposed on sites near and or within airfield safety zones such as the APZII/Zone B-1 area.**

   [ARM] The Maximum Building Height approved in ZAP1390MA19 was 45' per the previously approved plans. The proposed Building Height in ZAP1544MA22 is 53'6". Occupancy for the Industrial building was analyzed for e-commerce in the APZII Zone and warehouse in the C1 Zone. The ALUC Staff Report determined that these occupancy thresholds meet the ALUC requirements and the 2018 AICUZ Study for the APZII Zone. Any use for the building will need to comply with these thresholds as well as conform to the Use requirements allowed in the AICUZ Tables and the City of Perris Zoning Codes

   [ALUC] The 2018 AICUZ Appendix A identifies "warehousing" as a permitted use in APZ-II. The project proposes e-commerce warehouse in the portion of the project that is located within B1-APZ-II. The proposed e-commerce intensity is also consistent with the 2014 March ALUCP intensity criteria and the DoDI criteria of a maximum 50 people in any given acre in APZ-II. The proposed 53.5-foot tall building does not exceed the FAA notification threshold for obstacle obstruction.

2. **[AFC] Potential Building and Temporary Construction Height Restrictions: U.S. Air Force Reserve Command (AFRC) and MARB Terminal Instrument Procedures (TERPS) personnel would like confirmation on the following: Documented proof as to FAA Obstruction Evaluation Service (OES) due diligence as to finding of No Hazard to Air Navigation for the proposed project; Estimated temporary construction crane heights (relative to graded surface elevation of the project site). This is likely not a TERPS concern, given the Proposed site NE corner is approximately 9,300 linear feet south-southwest of Runway 14/32 south end threshold, but Base would like the crane height data to confirm no obstruction issue; Discrepancy between provided site elevations (states a maximum 53.6 feet building height) and Word file project description (states a maximum 40-foot building height).**

   [ARM] The ALUC Staff Report analyzed Part 77 and stated that due to the project distance being 8,300 feet from the runway an FAA Review would be required for any structures with the top of roof exceeding 1,571 feet AMSL. The Site elevation is approximately 1,464 feet AMSL. With the building being 53.5' tall, the Top of Roof would be 1,5 .5 feet AMSL and thus a review of the building by the FAA Obstruction

Elevation Service is not required. (The commercial-retail buildings are shorter in height than the industrial building and therefore will not require FAA OES review). The cranes used to raise the Tilt-Up walls and roof structures for the industrial buildings are on site for a limited period of time. We will ensure the Contractor requests a temporary Determinations of No Hazard to Air Navigation from the FAA during the period of temporary crane use on the site. The Maximum Building Height approved in ZAP1390MA19 was 45' per the previously approved plans. The proposed Building Height in ZAP1544MA22 is 53'6".

[ALUC] The Part 77 analysis prepared for the project identifies the FAA OES notification threshold for the site as 1,571 feet AMSL. The project's site elevation of 1,464 feet AMSL plus the 53.5 foot tall building results in a top point elevation of 1,517 feet AMSL, which is lower than the FAA OES threshold, and therefore would not require FAA OES review. ALUC staff has added a condition requiring that proposed temporary construction crane heights require FAA OES review and approval.

3. **[AFC] Proposed Warehouse Use: No mention of proposed or intended use within the warehouse structure contained in APZII/ALUC Zone B-1. Is this not yet determined (i.e. no tenant identified for building)? The interior use needs to be cross-checked against permissible use criteria per the DoD AICUZ land use compatibility in APZs.**

   [ARM] The Industrial building is a "spec" building. However, ALUC has analyzed this building as e-commerce for the portion in the APZII Zone and warehouse for the portion in the C1 Zone and found that the Occupancy meets both the requirements of ALUC and Table A-1. Land Use Compatibility Recommendations in the 2018 AICUZ study. It is understood that the ultimate user will need to comply with the occupancy requirements per the ALUC staff report as well as the Appendix A. Land Use Compatibility Tables from the March Air Reserve Base, Riverside CA Final AICUZ Study, 2018. In addition, any use must also be approved by the City of Perris when their Tenant Improvement Plans are submitted for review and approval. The City of Perris Conditions of Approval comply the project to meet the ALUC Conditions of Approval and that in the future any proposed changes must be submitted for review and approval by ALUC (which would include March ARB if required).

   [ALUC] The proposed building is speculative i.e. no tenant is identified at this time. However, the use of the building is an e-commerce warehouse. Warehouses are a permitted use in the APZ-II per the 2018 AICUZ Appendix A. Any future uses within this building will have to be consistent with the ALUC conditions which specifically identifies e-commerce warehouse use. Any deviation from the e-commerce warehouse use will require review by ALUC in conformance with the 2014 March ALUCP as well as the 2018 AICUZ Appendix A permitted land use table.

4. **[AFC] Bird Air Strike Hazard (BASH) Risks: If the project is approved, how would on-site stormwater detention and landscaping be managed to mitigate the risk of a bird air strike incident? For example, other warehouse projects in the surrounding area and near the MARB airfield have implemented underground detention basins and landscaping that does not typically attract fowl/wildlife.**

   [ARM] Per the City Requirements the basins utilized are not detention basins but

vegetative filtration basins. Water filters through the media into underground storm drainpipes. ZAP1390MA19 approved the proposed storm water system for the original project. This was modified for ZAP1544MA22 by relocating the basins per the new site plan while maintaining the maximum size of any basin per the requirements detailed in "Wildlife Hazard Management at Riverside County Airports: Background and Policy, October 2018 by Mead & Hunt". Per the ALCU Conditions of Approval vegetation in and around the basins that would provide food or cover for birds shall not be utilized in the 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.

[ALUC] 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 8,300 feet from the runway, and therefore would be subject to the above requirement. The project proposes 14,185 square feet of vegetative swale area. Vegetative swales are an acceptable form of stormwater management, pursuant to the study "Wildlife Hazard Management at Riverside County Airports: Background and Policy", October 2018, by Mead & Hunt, and are acceptable within the vicinity of airports as they do not usually involve ponded water, provided that the proposed vegetation/landscaping are not attractive to hazardous wildlife, and that it is adequately maintained. The project has been conditioned to be consistent with the basin criteria (as well as providing 48-hour draw down of the basin).

5. **[AFC] Site Drainage: How will the site drain? If to the north-northeast, this could increase runoff levels towards Base, as well as the proposed new Lateral B drainage canal project being managed by Riverside County Flood Control.**

   [ARM] Other than the location of the filtration basins the site drainage remains as shown and approved in ZAP1390MA19. The project will be installing underground storm drainpipes to connect to the existing underground systems in Perris Boulevard and Ramona Expressway. These existing systems currently accept all water runoff from the existing site.

   [ALUC] In addition to the applicant's response, and as already discussed in response to AFC comment #4, the proposed on-site drainage has been analyzed for hazardous wildlife attractants and is found to be acceptable per the Wildlife Hazard policy prepared by Mead & Hunt. Regional drainage issues impacting the Base is currently being analyzed in the March Compatible Use Study.

6. **[AFC] Glint/Glare Impacts from Potential Future Solar Panels: Although not currently proposed for this project, given the growing trend of installing rooftop solar panel arrays on warehouse facilities in the surrounding vicinity, MARB is concerned that**

this project shall ultimately act accordingly. The result is an operational concern in that glint/glare from the solar panels on a site near final approach patterns for Runway 32 could create a substantial operational safety hazard.

[ARM] Rooftop solar photovoltaic panels are not planned for this project. The ALUC Staff Report states that should solar rooftop panels be proposed 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.

[ALUC] The project does not propose rooftop solar panel and therefore no glare study was required at this time. The project has been conditioned that in the event solar panels are proposed, a solar glare study shall be prepared and submitted to the ALUC and Air Force for review.

7. **[AFC] Proposed Site Lighting: Can the developer confirm that the proposed building and support facility (e.g. parking lots) will use lighting that mitigates increased glare levels that could create adverse impacts on night flying operations utilizing Runway 14/32?**

   [ARM] The ALUC Staff Report has the following Condition: Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection in the sky. Outdoor lighting shall be downward facing. The City of Perris has included this language in their Conditions of Approval.

   [ALUC] In addition to the applicant's response, the project has been conditioned to ensure that any outdoor lighting that is installed shall be hooded or shielded as to prevent either the spillage of lumens or reflection into the sky, and that outdoor lighting shall be downward facing.

Prohibited and Discouraged Uses: The applicant does not propose any uses prohibited or discouraged in Compatibility Zones B1-APZ II and C1. Warehouses are compatible within Accident Potential Zones II pursuant to the 2018 Air Installation Compatible Use Zone (AICUZ) study disseminated by the United States Air Force. Warehouses are also compatible pursuant to Department of Defense Instruction (DODI) No. 4165.57.

Noise: The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the site as being in an area between 60 - 70 CNEL range from aircraft noise. As a primarily industrial use not sensitive to noise (and considering typical anticipated building construction noise attenuation of approximately 20 dBA), the warehouse area would not require special measures to mitigate aircraft-generated noise. However, a condition is included to provide for adequate noise attenuation within office areas of the building as well as for the commercial restaurant/retail buildings.

Part 77: The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level (AMSL). At a distance of approximately 8,300 feet from the runway to the closest parcel within the site, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 1,571 feet AMSL. The site elevation is approximately 1,464 feet AMSL, with the proposed industrial building height of ~~36~~ **53.5** feet, resulting in a top point elevation of ~~1,500~~ **1,517**

feet AMSL. Therefore, review of buildings by the FAA Obstruction Evaluation Service is not required. (The commercial-retail buildings are shorter in height than the industrial buildings and therefore will not require FAA OES review).

Open Area: None of the Compatibility Zones for the March Air Reserve Base/Inland Port ALUCP require open area specifically. However, new development within Compatibility Zone B1-APZ-II is limited to a maximum lot coverage of 50%. The proposed 5.97 acre building is located on 11.76 acres (in APZ-II), resulting in a 50% lot coverage.

Hazards to Flight: 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 8,300 feet from the runway, and therefore would be subject to the above requirement.

The project proposes 14,185 square feet of vegetative swale area. Vegetative swales are an acceptable form of stormwater management, pursuant to the study "Wildlife Hazard Management at Riverside County Airports: Background and Policy", October 2018, by Mead & Hunt, and are acceptable within the vicinity of airports as they do not usually involve ponded water, provided that the proposed vegetation/landscaping are not attractive to hazardous wildlife, and that it is adequately maintained. The project has been conditioned to be consistent with the basin criteria (as well as providing 48-hour draw down of the basin).

Specific Plan Amendment: The applicant proposes amending the Perris Valley Commerce Specific Plan (SPA No. 13) and changing 14.1 acres of the site's zoning from Commercial to Light Industrial (with 1.99 acres of the site remaining Commercial). 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) Any other uses not permitted in (Accident Potential Zone I/ Accident Potential Zone II) pursuant to DoDI 4165.57 Appx.2, Tbl.1.

(h) Other Hazards to Flight.

3. Prior to issuance of building permits, the landowner 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. The attached notice shall be given to all prospective purchasers of the property and tenants of the buildings.

5. 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 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. 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.

7. Noise attenuation measures shall be incorporated into the design of the office, retail, and restaurant areas, to the extent such measures are necessary to ensure that interior noise levels from aircraft operations are at or below 45 CNEL.

8. 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.

9. This project has been evaluated as consisting of (within Zone B1-APZ-II) 274,150 square feet of e-commerce warehouse area (no office area proposed) and (within Zone C1) a portion of the main industrial building including 10,422 square feet of warehouse area,10,000 square feet of first floor office area, and 10,000 square feet of second floor office mezzanine area; a standalone 2,010 square foot restaurant building with an 8 car stack drive-thru which includes 1,206 square feet of dining area and 804 square feet of kitchen area; a 4,950 square foot mixed retail/restaurant building with 14 car stack drive-thru which includes: 1,050 square feet of dining area and 700 square feet of kitchen area (fast food restaurant), 960 square feet of dining area and 640 square feet of kitchen area (inline restaurant), and 1,600 square feet of retail area. 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.

10. Zoned fire sprinkler systems shall be required throughout the industrial building.

11. Review and the necessary clearances from the FAA OES is required for all temporary construction cranes.

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)(13)(A)

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

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____

November 9, 2022

To: Paul Rull, Riverside County ALUC

From: Lars Andersen, Pacific Development Partners, LLC

Project/Applicant: Expressway Commerce Center. PR Partners, LLC

Subject: Response to March ARB Working Comments for ALUC ZAP1544M22

Project History:

The project was originally approved by ALUC on July 9, 2020, with Case Number ZAP1390MA19. The project consisted of a 347,919 SF industrial e-commerce and warehouse building. The e-commerce use for the building is in the APZII Zone and the warehouse use is located in the C1 Zone. The project was heard by the Perris City Council in July of this year, and we were directed to modify the project to include a Retail Component at Ramona and Perris in the C1 Zone.

Vicinity Map

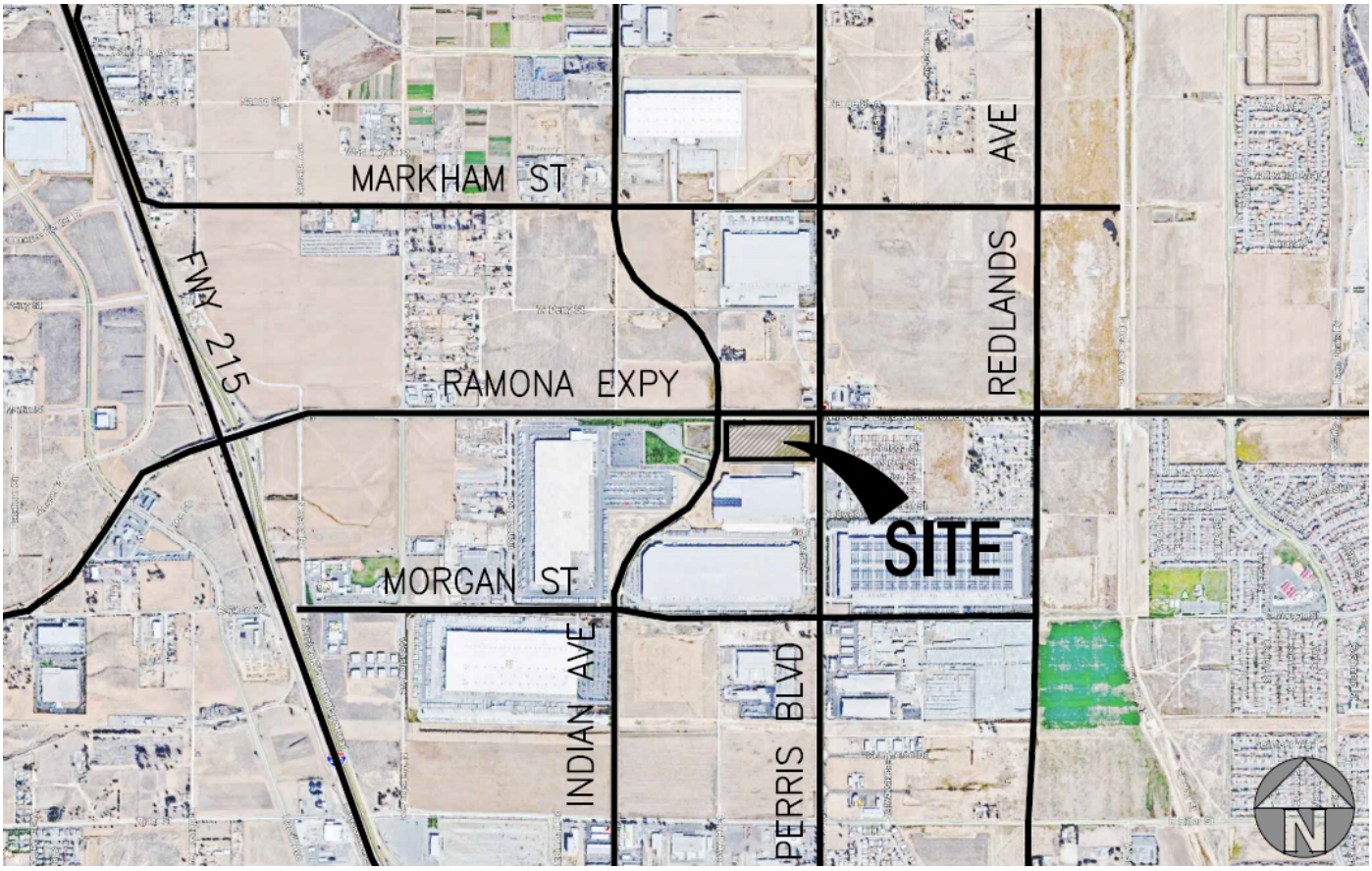
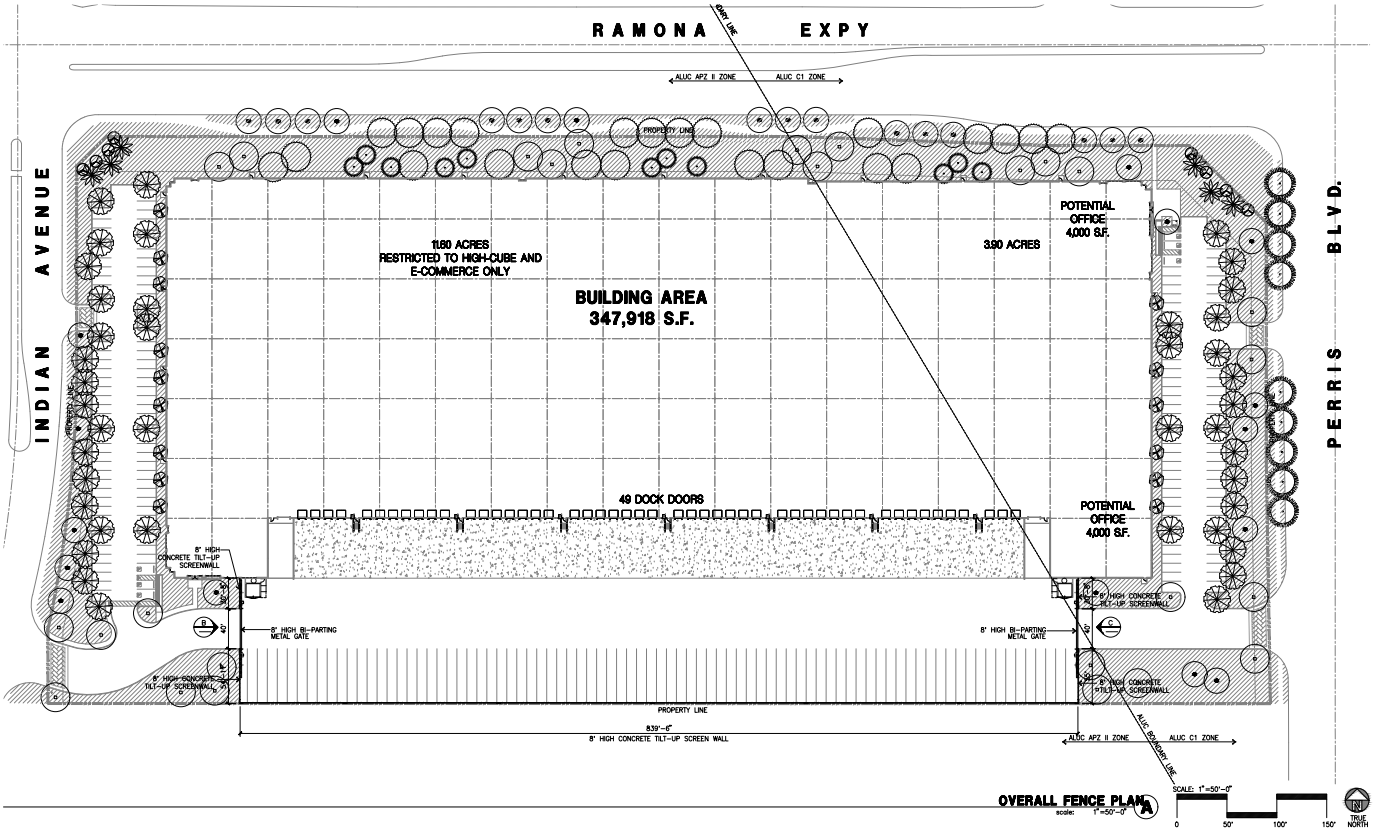
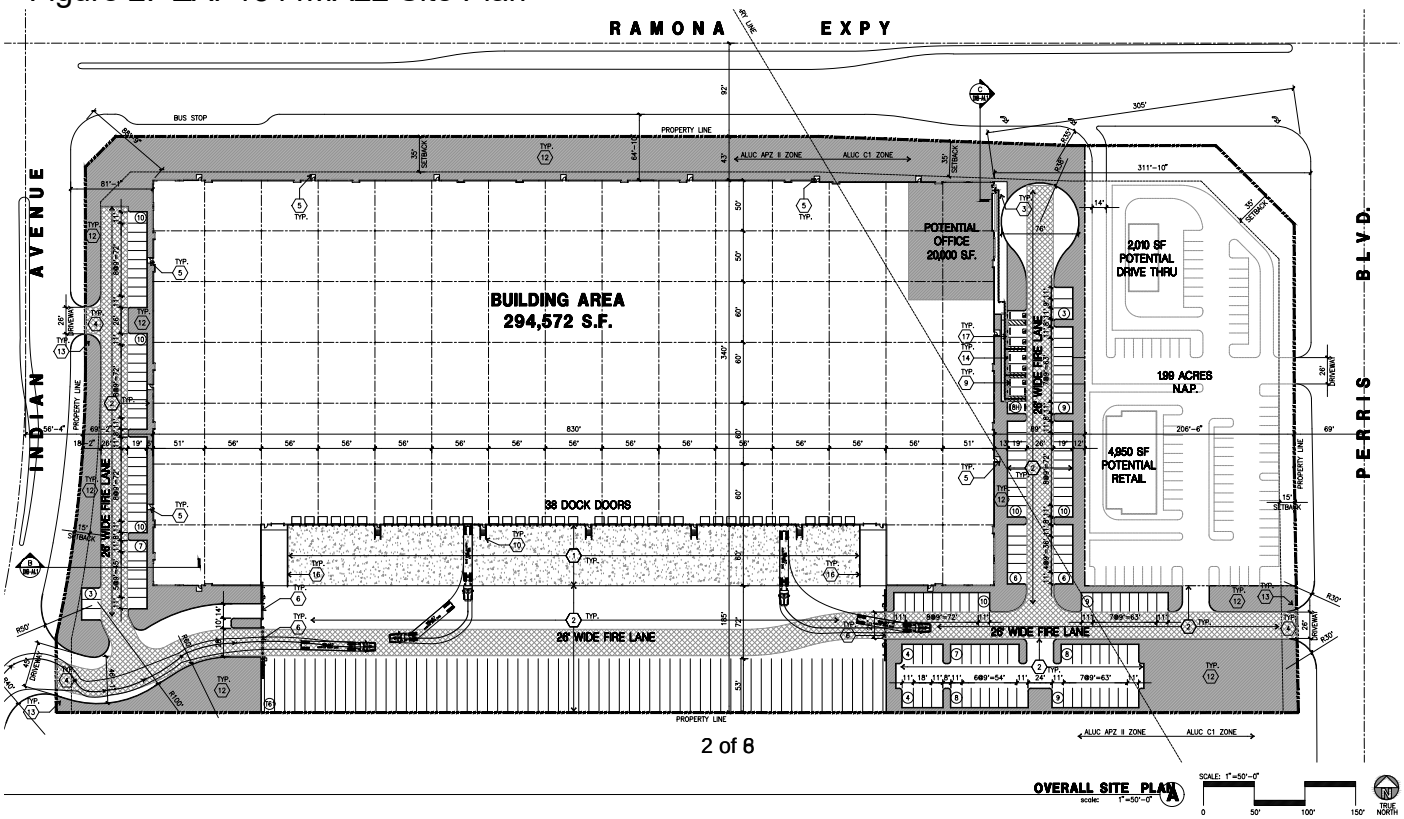


Figure 1. ZAP1390MA19 Site Plan



In response to the City Council, we submitted a revised site plan to ALUC (ZAP1544MA22) which shows 304,572 square feet (SF) of industrial warehousing of which the portion in the APZII Zone remains e-commerce and the balance warehouse in the C1 Zone. The City Council requested the project show a conceptual layout out for Commercial which now consists of two buildings totaling 6,960 SF. Should the retail component be revised in the future we will re-submit to ALUC with any proposed modifications to the Retail component.

Figure 2. ZAP1544MA22 Site Plan



The November 8, 2022, March ARB Working Comments below (in blue) have been reviewed and the response follows each comment.

1. Location of Site in Runway 14/32 Accident Potential Zone II (APZII):
In accordance with the latest Air Installation Compatible Use Zone (AICUZ) Study for MARB (published in 2018), the majority of the proposed site is contained in the Runway 14/32 APZII. The APZII area is also tracked as Compatibility Zone B-1 per the 2014 ALUC Land Use Compatibility Plan. Although the proposed 40-foot maximum height of the warehouse structure is permissible as per applicable Department of Defense (DoD) standards, Base maintains an overall heightened level of concern due to the ongoing increase of large-scale warehouse-type developments proposed on sites near and or within airfield safety zones such as the APZII/Zone B-1 area.

RESPONSE: The Maximum Building Height approved in ZAP1390MA19 was 45' per the previously approved plans. The proposed Building Height in ZAP1544MA22 is 53'6". Occupancy for the Industrial building was analyzed for e-commerce in the APZII Zone and warehouse in the C1 Zone. The ALUC Staff Report determined that these occupancy thresholds meet the ALUC requirements and the 2018 AICUZ Study for the APZII Zone. Any use for the building will need to comply with these thresholds as well as conform to the Use Requirements allowed in the AICUZ Tables and the City of Perris Zoning Codes

2. Potential Building and Temporary Construction Height Restrictions:
U.S. Air Force Reserve Command (AFRC) and MARB Terminal Instrument Procedures (TERPS) personnel would like confirmation on the following:

- Documented proof as to FAA Obstruction Evaluation Service (OES) due diligence as to finding of No Hazard to Air Navigation for the proposed project.

RESPONSE: The ALUC Staff Report analyzed Part 77 and stated that due to the project distance being 8,300 feet from the runway an FAA Review would be required for any structures with the top of roof exceeding 1,571 feet AMSL. The Site elevation is approximately 1,464 feet AMSL. With the building being 53.5' tall, the Top of Roof would be 1,517.5 feet AMSL and thus a review of the building by the FAA Obstruction Elevation Service is not required. (The commercial-retail buildings are shorter in height than the industrial building and therefore will not require FAA OES review).

- Estimated temporary construction crane heights (relative to graded surface elevation of the project site)l. This is likely not a TERPS concern, given the Proposed site NE corner is approximately 9,300 linear feet south-southwest of Runway 14/32 south end threshold, but Base would like the crane height data to confirm no obstruction issue.

RESPONSE: The cranes used to raise the Tilt-Up walls and roof structures for the industrial buildings are on site for a limited period of time. We will ensure the Contractor requests a temporary Determinations of No Hazard to Air Navigation from the FAA during the period of temporary crane use on the site.

- Discrepancy between provided site elevations (states a maximum 53.6 feet building height) and Word file project description (states a maximum 40-foot building height).

RESPONSE: The Maximum Building Height approved in ZAP1390MA19 was 45' per the previously approved plans. The proposed Building Height in ZAP1544MA22 is 53'6".

Figure 3. ZAP1390MA19 Building Elevation with Height

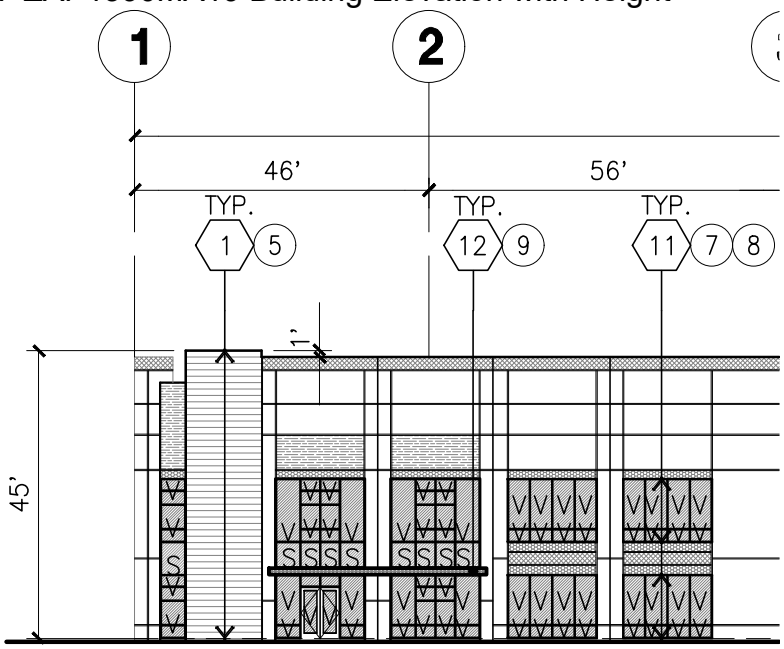
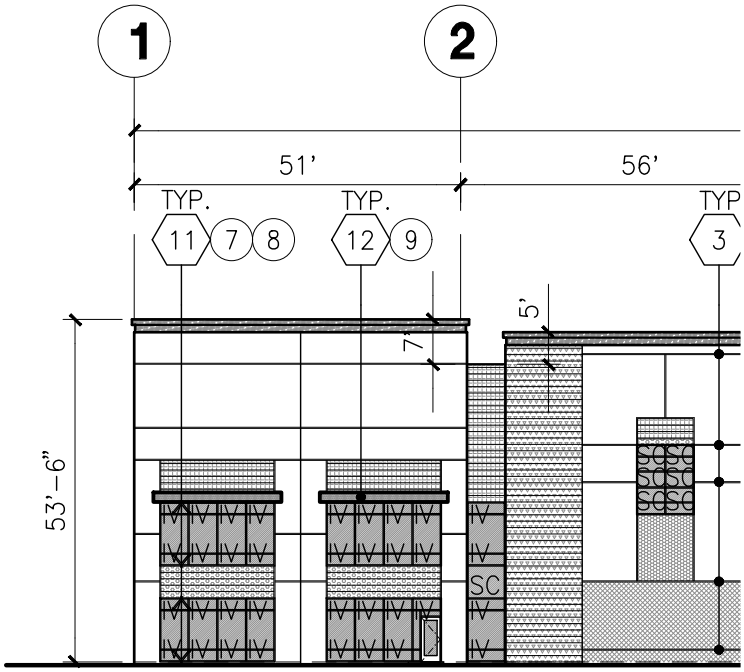


Figure 4. ZAP1544MA22 Building Elevation with Height



3. Proposed Warehouse Use: No mention of proposed or intended use within the warehouse structure contained in APZII/ALUC Zone B-1. Is this not yet determined (i.e. no tenant identified for building)? The interior use needs to be cross-checked against permissible use criteria per the DoD AICUZ land use compatibility in APZs.

RESPONSE: The Industrial building is a "spec" building. However, ALUC has analyzed this building as e-commerce for the portion in the APZII Zone and warehouse for the portion in the C1 Zone and found that the Occupancy meets both the requirements of ALUC and Table A-1. Land Use Compatibility Recommendations in the 2018 AICUZ study. It is understood that the ultimate user will need to comply with the occupancy requirements per the ALUC staff report as well as the Appendix A. Land Use Compatibility Tables from the March Air Reserve Base, Riverside CA Final AICUZ Study, 2018. In addition, any use must also be approved by the City of Perris when their Tenant Improvement Plans are submitted for review and approval. The City of Perris Conditions of Approval comply the project to meet the ALUC Conditions of Approval and that in the future any proposed changes must be submitted for review and approval by ALUC (which would include March ARB if required).

4. Bird Air Strike Hazard (BASH) Risks: If the project is approved, how would on-site stormwater detention and landscaping be managed to mitigate the risk of a bird air strike incident? For example, other warehouse projects in the surrounding area and near the MARB airfield have implemented underground detention basins and landscaping that does not typically attract fowl/wildlife.

RESPONSE: Per the City Requirements the basins utilized are not detention basins but vegetative filtration basins. Water filters through the media into underground storm drain pipes. ZAP1390MA19 approved the proposed storm water system for the original project. This was modified for ZAP1544MA22 by relocating the basins per the new site plan while maintaining the maximum size of any basin per the requirements detailed in "Wildlife Hazard Management at Riverside County Airports: Background and Policy, October 2018 by Mead & Hunt". Per the ALCU Conditions of Approval vegetation in and around the basins that would provide food or cover for birds shall not be utilized in the 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.

5. Site Drainage: How will the site drain? If to the north-northeast, this could increase runoff levels towards Base, as well as the proposed new Lateral B drainage canal project being managed by Riverside County Flood Control.

RESPONSE: Other than the location of the filtration basins the site drainage remains as shown and approved in ZAP1390MA19. The project will be installing underground storm drain pipes to connect to the existing underground systems in Perris Boulevard and Ramona Expressway. These existing systems currently accept all water run off from the existing site.

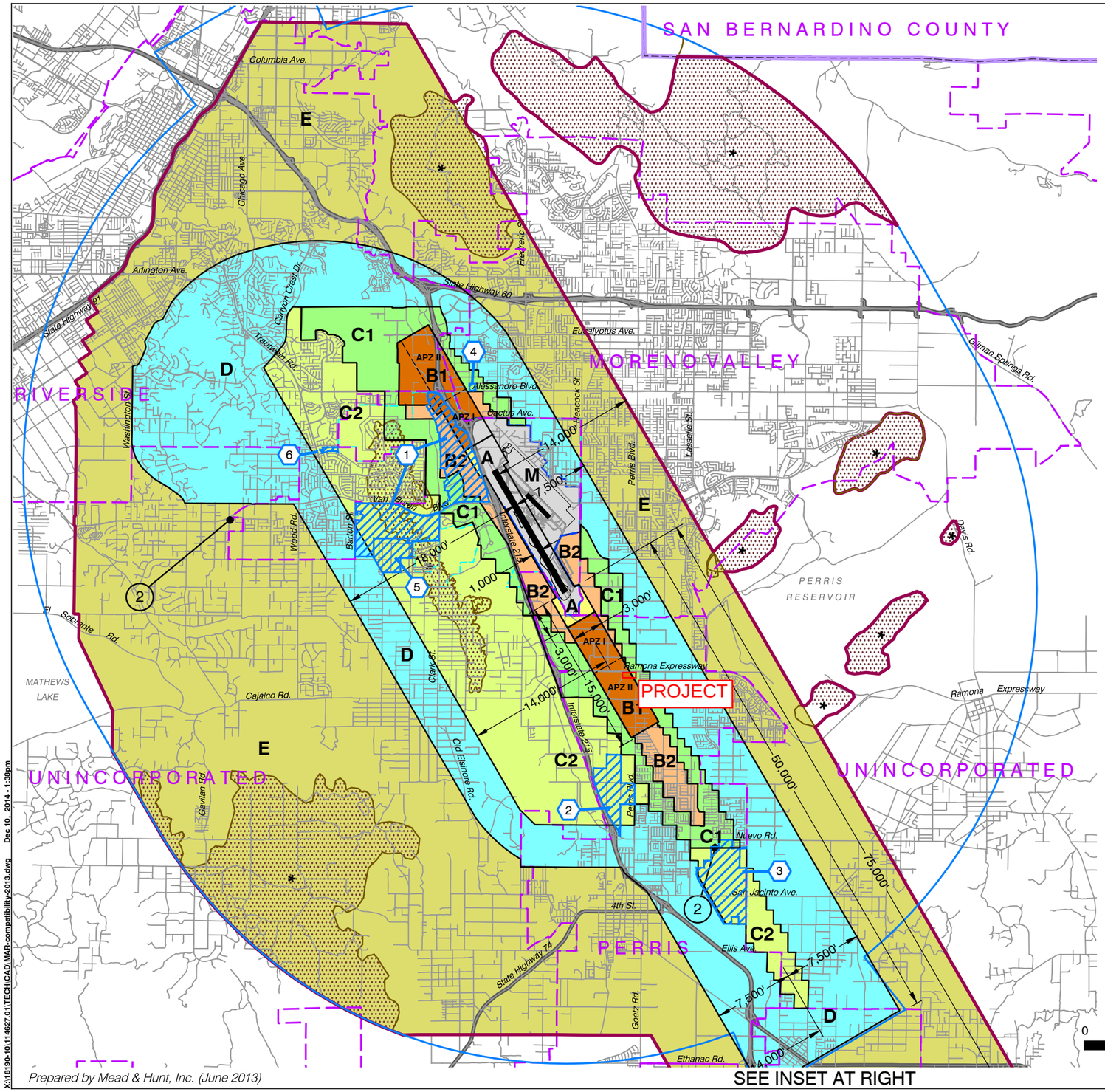
6. Glint/Glare Impacts from Potential Future Solar Panels: Although not currently proposed for this project, given the growing trend of installing rooftop solar panel arrays on warehouse facilities in the surrounding vicinity, MARB is concerned that this project shall ultimately act accordingly. The result is an operational concern in that glint/glare from the solar panels on a site near final approach patterns for Runway 32 could create a substantial operational safety hazard.

RESPONSE: Rooftop solar photovoltaic panels are not planned for this project. The ALUC Staff Report states that should solar rooftop panels be proposed 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. Proposed Site Lighting: Can the developer confirm that the proposed building and support facility (e.g. parking lots) will use lighting that mitigates increased glare levels that could create adverse impacts on night flying operations utilizing Runway 14/32?

RESPONSE: The ALUC Staff Report has the following Condition: Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection in the sky. Outdoor lighting shall be downward facing. The City of Perris has included this language in their Conditions of Approval.

Thank you for the opportunity to clarify information for our project.
Please do not hesitate to contact me for any further responses.



LEGEND

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M
- High Terrain Zone
- FAR Part 77 Military Outer Horizontal Surface Limits
- FAR Part 77 Notification Area

(1) Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.

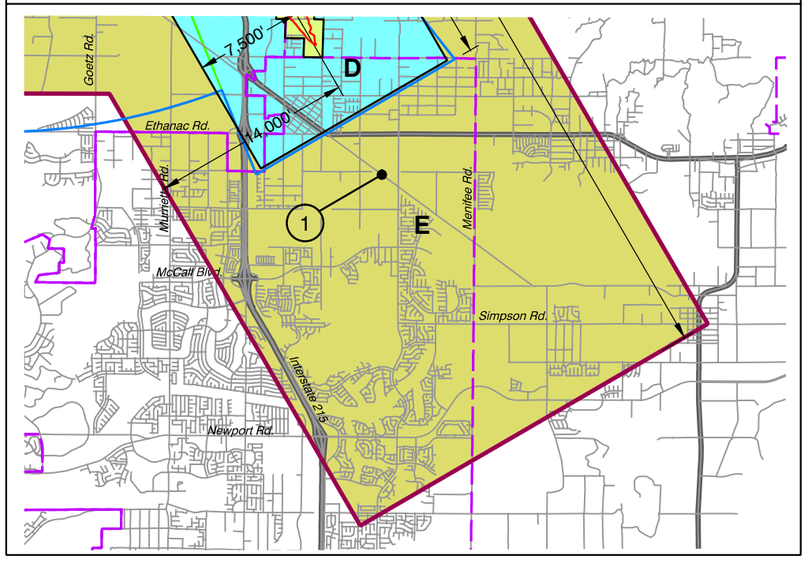
(2) Point at which departing aircraft typically reach 3,000 feet above runway end.

Boundary Lines

- March Air Reserve Base / Air Force Property
- March Joint Powers Authority Property Line
- County Boundary
- City Limits
- Site-Specific Exceptions (existing local agency commitments to development projects)

1. March JPA: March Business Center/Meridian
2. Perris: Harvest Landing
3. Perris: Park West
4. Moreno Valley: Affordable Housing
5. March JPA: Ben Clark Training Center
6. Riverside: Ridge Crest Subdivision

INSET



Riverside County
Airport Land Use Commission

March Air Reserve Base / Inland Port Airport
Land Use Compatibility Plan

(Adopted November 13, 2014)

Note:
All dimensions are measured from runway ends and centerlines.

N

0 2 4 MILES

Base map source: County of Riverside 2013

Prepared by Mead & Hunt, Inc. (June 2013)

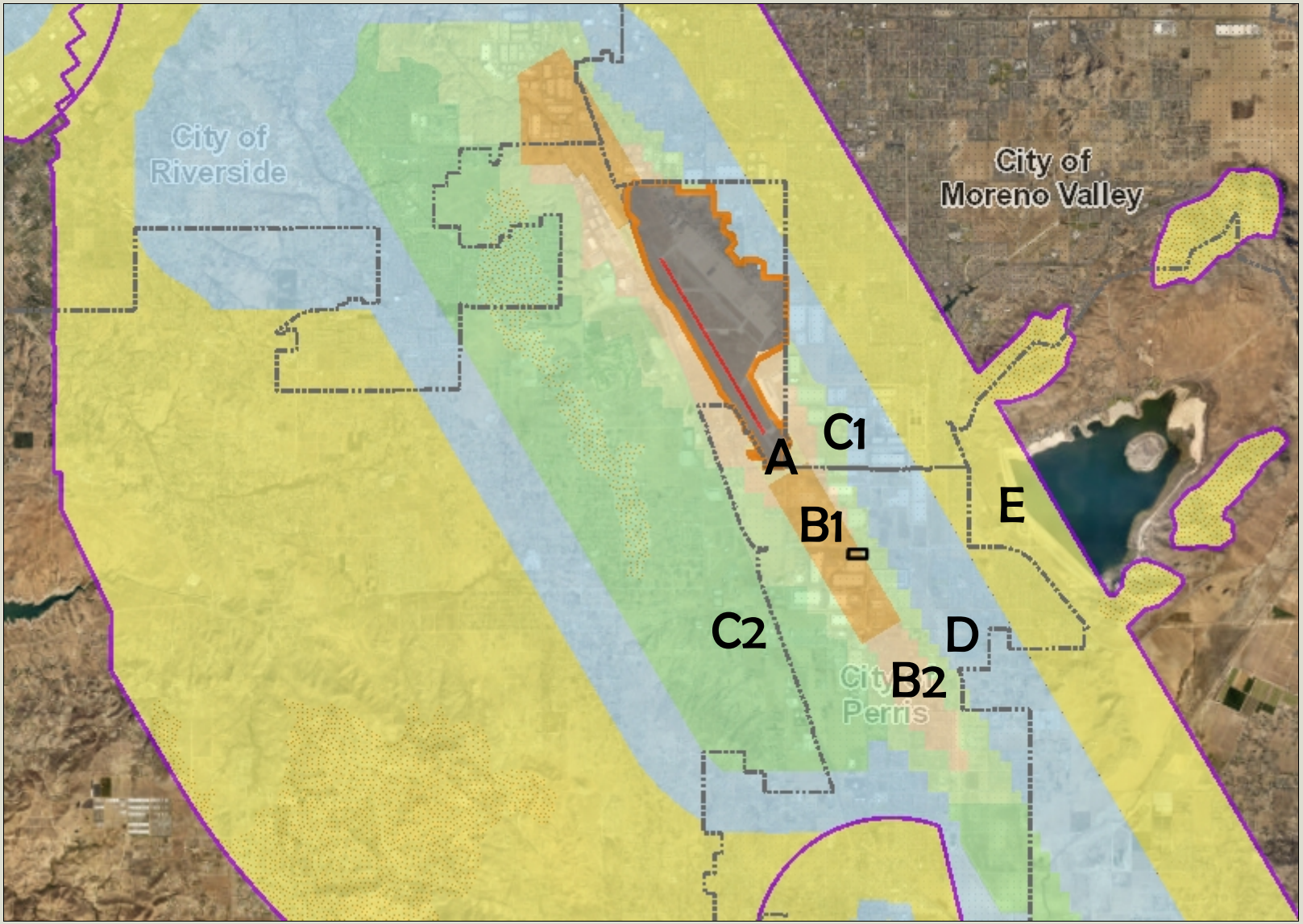
X:\18190-10\114627.01\TECH\CAD\MAR-compatibility-2013.dwg Dec 10, 2014 - 1:38pm

Map MA-1

Compatibility Map

March Air Reserve Base / Inland Port Airport

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 12,127 24,254 Feet

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Notes

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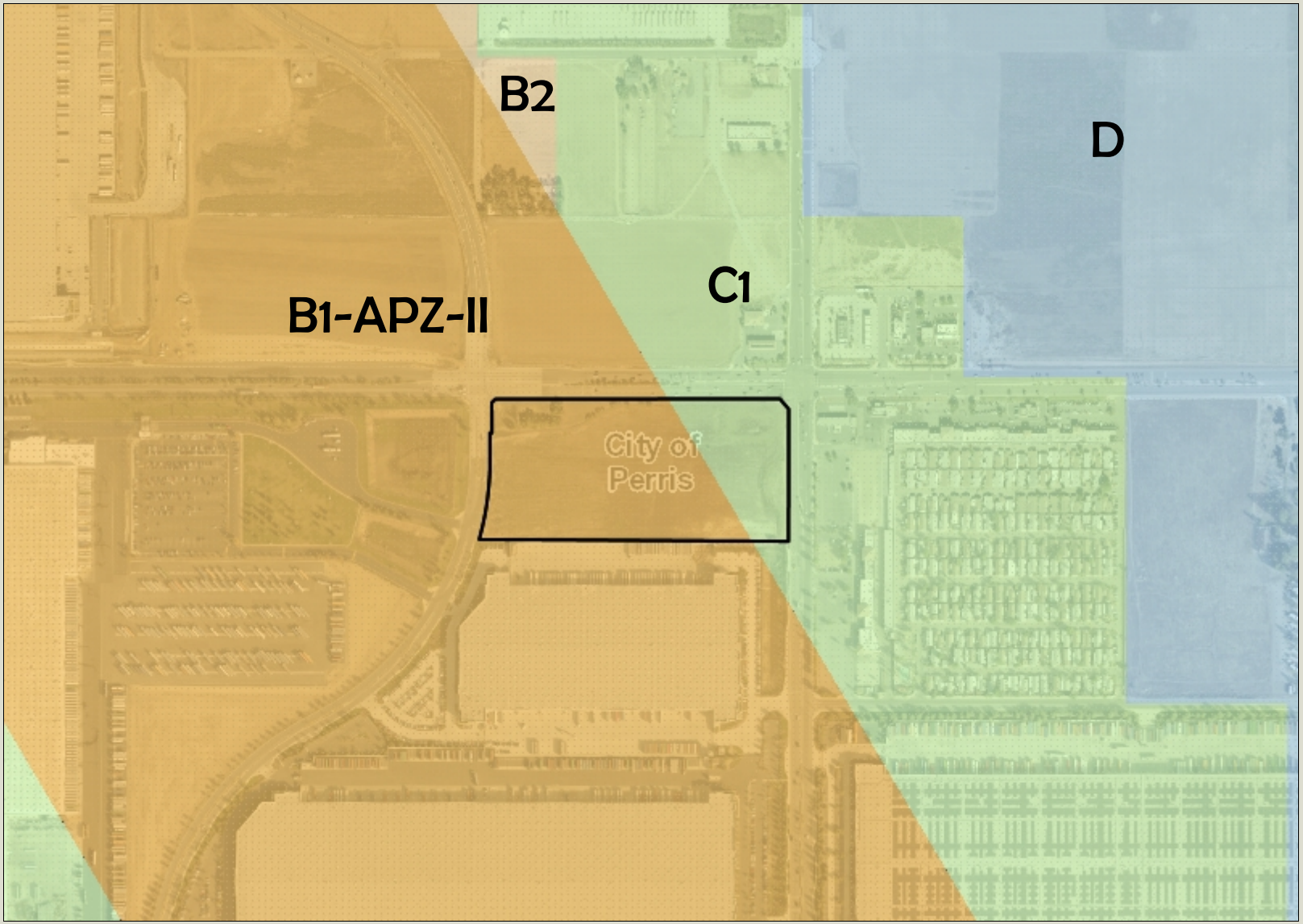

Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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Legend

City Areas

World Street Map

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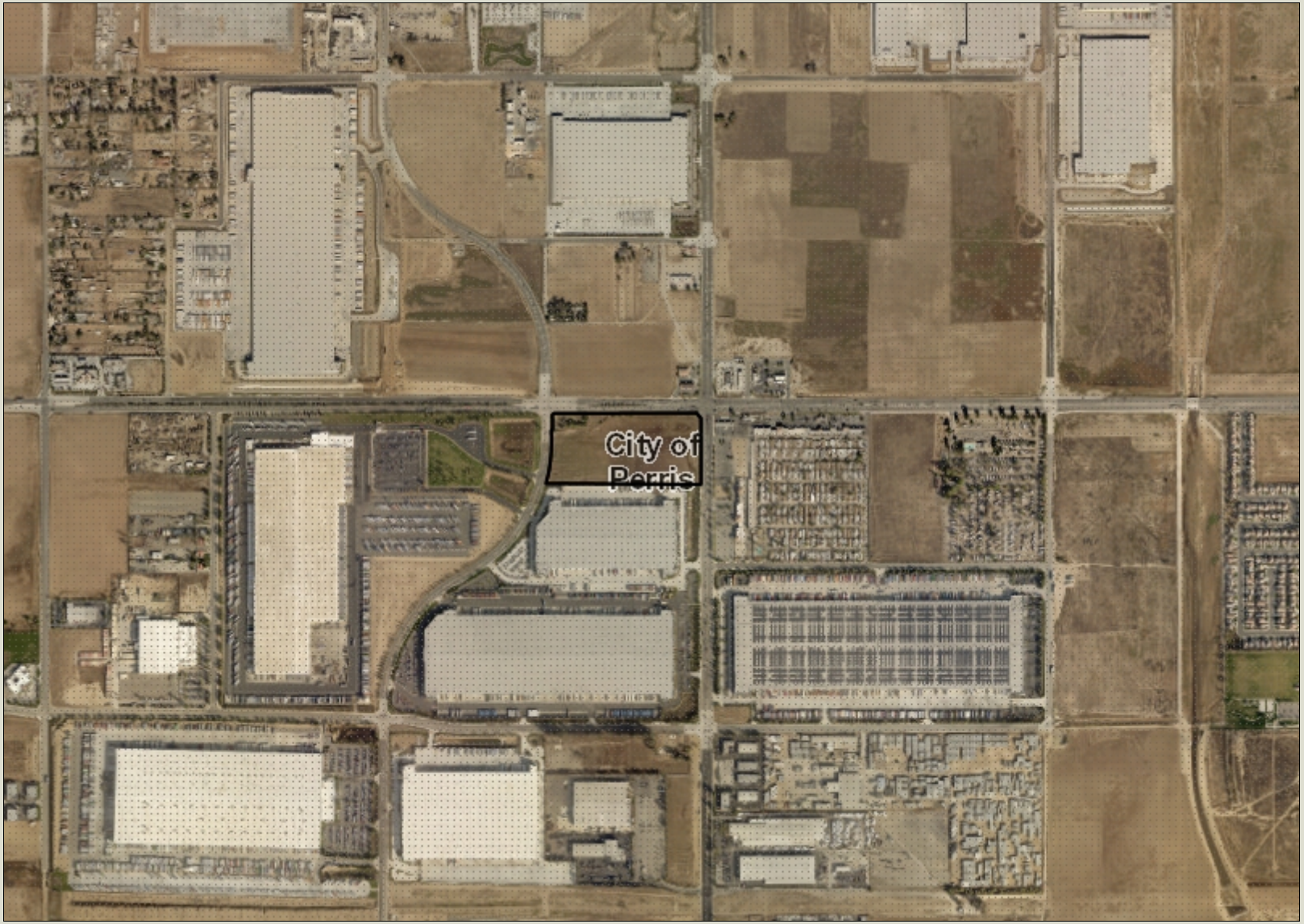

Legend

- Blueline Streams
- City Areas
- World Street Map

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Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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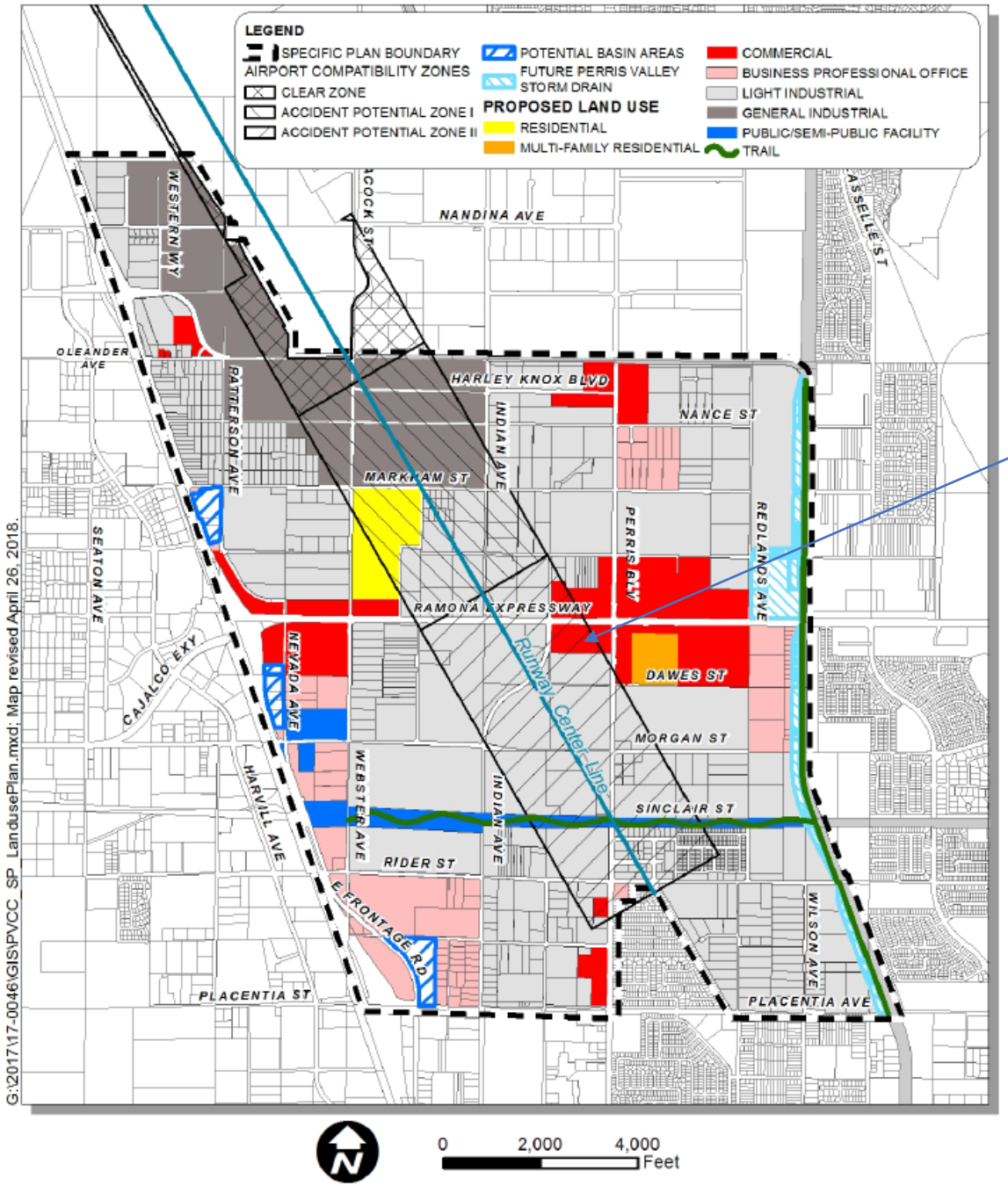
Notes

Current Specific Plan
Land Use Designation

Figure 2.0-1, Specific Plan Land Use Designation



Project Site

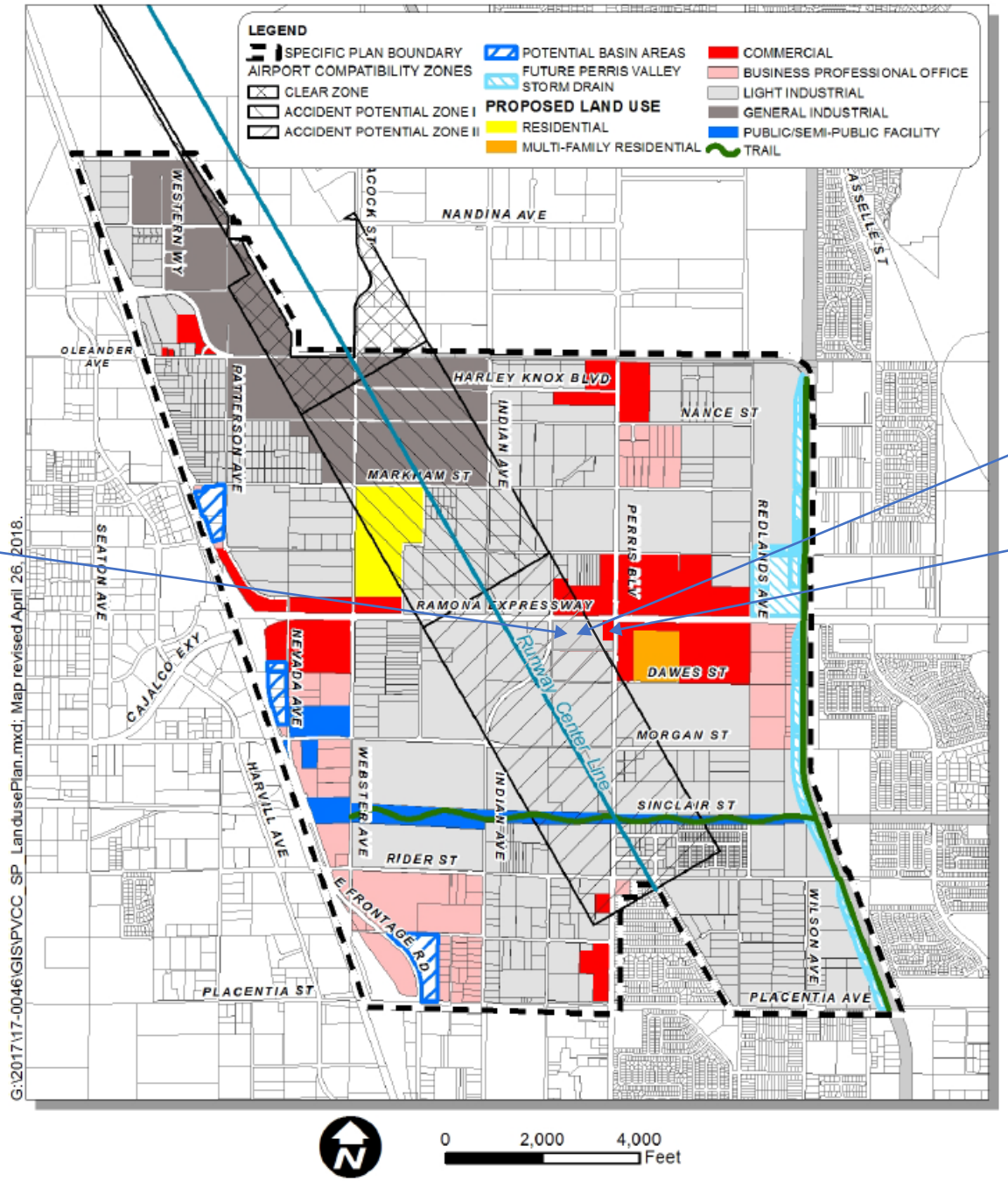
Proposed Specific Plan
Land Use Designation
1.99 Acres to remain
Commercial

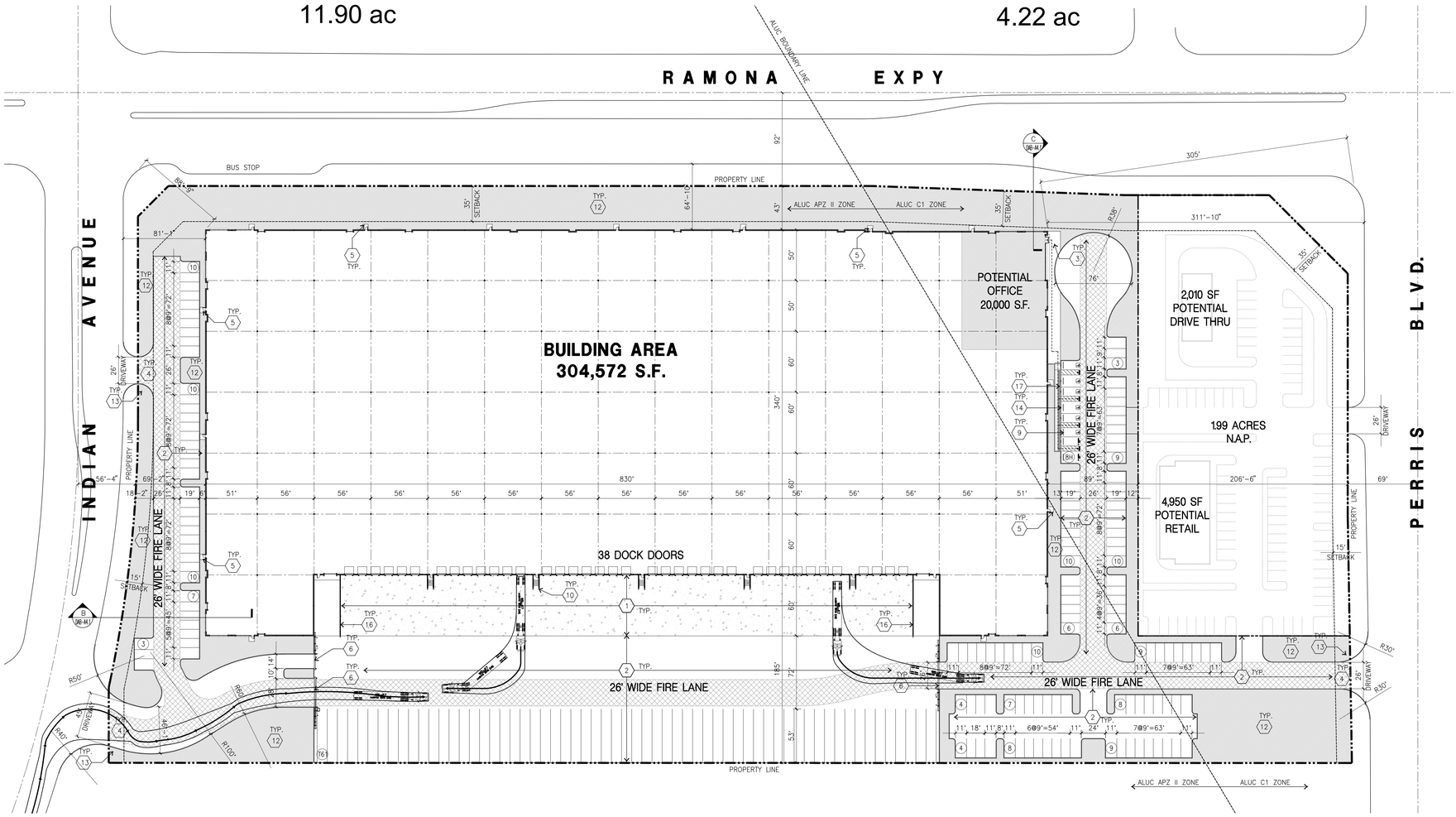
14.1 Acres to be
zoned Light
Industrial

Project Site

1.99 Acres to remain
Commercial

Figure 2.0-1, Specific Plan Land Use Designation





OVERALL SITE PLAN (A)

scale: 1"=50'-0"

SCALE: 1"=50'-0"

0 50' 100' 150'

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING.
3. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
4. DECORATIVE COLORED DRIVEWAY APRONS TO BE CONSTRUCTED.
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH.
6. PROVIDE 8' HIGH METAL GATES W/ KNOX-BOX PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
7. TRASH ENCLOSURE PER CITY STANDARD.
8. APPROXIMATE LOCATION OF TRANSFORMER.
9. PRE-CAST CONCRETE WHEEL STOP.
10. CONCRETE FILLED GUARD POST "6 DIA. U.N.O. 42" H.
11. DESIGNATED SMOKING AREA.
12. LANDSCAPE. ALL LANDSCAPE AREAS INDICATED BY SHADING.
13. ACCESSIBLE ENTRY SIGN.
14. ACCESSIBLE PARKING STALL SIGN.
15. 8' HIGH CONCRETE TILT-UP SCREEN WALL.
16. 42" HIGH CONCRETE GUARDWALL.
17. TRUNCATED DOME.
18. EMPLOYEE BREAK AREA.
19. EXTERIOR BIKE RACK.

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY: TBD
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH U.N.O.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PUBLIC FACILITIES DEVELOPMENT.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC FACILITIES DEVELOPMENT.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB.
16. ALL GROUND MOUNTED UTILITY STRUCTURES SUCH AS TRANSFORMERS, HVAC EQUIPMENT AND BACK FLOW PREVENTION VALVES SHALL BE LOCATED OUT OF VIEW FROM A PUBLIC STREET OR ADEQUATELY SCREENED THROUGH THE USE OF LANDSCAPING AND/OR MASONRY WALLS.
17. ALL LIGHTING FIXTURES TO BE FULLY SHIELDED WITH CUT-OFF FIXTURES THAT EMITS GLARE ONTO ADJACENT PROPERTIES.
18. PARKING AREA LIGHTING TO BE PROVIDED PURSUANT TO SECTION 19.02.110.a OF PVCC SPECIFIC PLAN

SITE LEGEND

- CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- ASPHALT CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL (9' X 19')
- DISABLED PARKING STALL (9' X 19') + 5' W/ ACCESSIBLE AISLE
- DISABLED PARKING (VAN) STALL (12' X 19') + 5' W/ ACCESSIBLE AISLE
- LANDSCAPED AREA
- PATH OF TRAVEL
- 26' FIRE WIDE FIRELANE
- EXISTING PUBLIC FIRE HYDRANT
- F.H. PRIVATE FIRE HYDRANT-APPROXIMATE LOCATION

ALUC CALCULATION

HIGH CUBE : 1 PER 1,428 S.F.

E-COMMERCE : 1 PER 1,000 S.F.

*NOTE

ALL SIGNAGE WILL BE REVIEWED UNDER SEPARATE PERMIT

PROJECT INFORMATION

Owner/Applicant
PR PARTNERS, LLC
30220 RANCH VIEJO RD, STE B
SAN JUAN CAPISTRANO, CA 92675
TEL : (949) 481-0463
CONTACT: LARS ANDERSON

Applicant's Representative
HPA, INC.
18831 BARDEEN AVE. - SUITE 100
IRVINE, CA 92612
PHONE: (949) 862-2138
FAX: (949) 863-0851
CONTACT: NANCY PARK

Project Address
SW CORNER OF PERRIS BLVD AND RAMONA EXPY
PERRIS, CA

Zoning
PROPOSED ZONING : (LI) INDUSTRIAL

Code Analysis
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS

Assessors Parcel Number
303-060-020

Construction Type
CONCRETE TILT-UP BUILDING

BUILDING OCCUPANCY : S-1 / B
CONSTRUCTION TYPE : III-B

ESFR SYSTEM

Legal Description

PRELIMINARY TITLE REPORT #910090999-K26

BLOCKS 9 TO 12, INCLUSIVE OF FIGADOTA FARMS NO. 17 IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AS SHOWN BY MAP ON FILE IN BOOK 17 PAGE 32 OF MAPS, RECORDS OF SAID COUNTY;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED OCTOBER 7, 1958 AS INSTRUMENT NO. 58-71763 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

VICINITY MAP

PROJECT DATA

SITE AREA	
In sq. ft.	589,160 s.f.
In acres	13.5 ac
BUILDING AREA	
Office 1st floor	10,000 s.f.
Office 2nd fllor	10,000 s.f.
Warehouse	284,572 s.f.
TOTAL	304,572 s.f.
F.A.R	0.52
COVERAGE	50.0%
AUTO PARKING REQUIRED	
1st 20K @ 1/1,000 sf	20 stalls
2nd 20K @ 1/2,000 sf	10 stalls
Over 40K @ 1/5,000 sf	53 stalls
TOTAL	83 stalls
AUTO PARKING PROVIDED	
standard (9'x19')	153 stalls
TRAILER PARKING PROVIDED	
Trailer (10'x53')	61 stalls

Zoning Ordinance for City

Current Zoning Designation - Perris Valley Commercial Center SP (PVCC-SP) - Commercial

Proposed Zoning Designation - (L.I) Industrial

MAXIMUM FLOOR AREA RATIO

F.A.R. - .75

MAXIMUM LOT COVERAGE

Coverage - 50%

SETBACKS

Indian Ave. - 15' *

Ramona Expy. - 20' *

Side / rear - 0'

* Front yards for structures shall be increased 5' for each 10' of structure height greater than setback from property line

LANDSCAPE REQUIRED	
Percentage	12%
LANDSCAPE PROVIDED	
Percentage	16.0%
In sq. ft.	94,036 s.f.

CAUTION : IF THIS SHEET IS NOT A 30" X 42" IT IS A REDUCED PRINT

HPA architecture

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

Owner:

PR PARTNERS. LLC
c/o
PACIFIC DEVELOPMENT PARTNERS, LLC
30220 RANCHO VIEJO RD
SAN JUAN CAPISTRANO, CA 92675
TEL : 949-481-0452

Project:

RAMONA EXPY.
&
INDIAN AVE.

PERRIS, CA

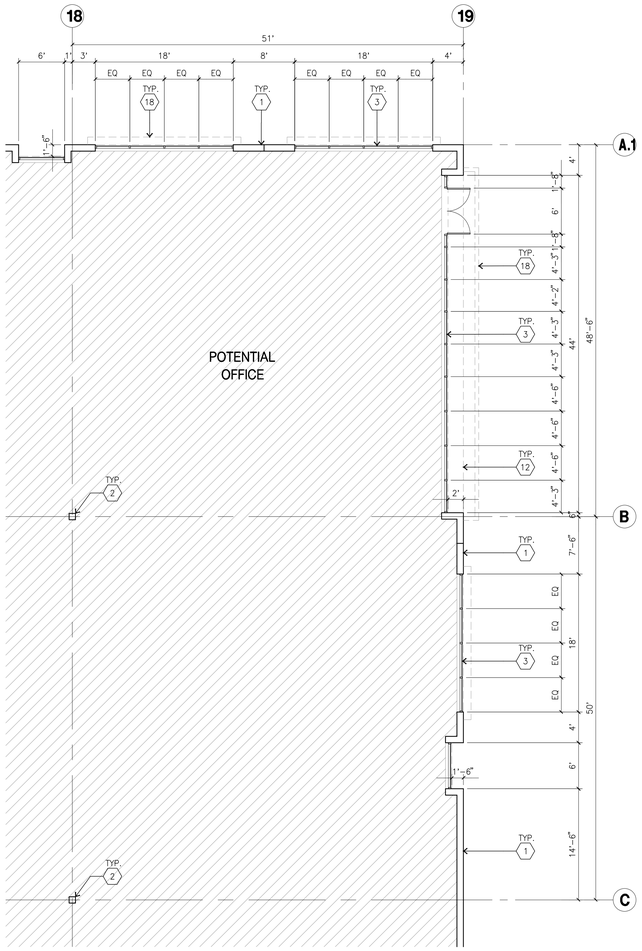
Consultants:

Civil:	UNITED ENG.
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	-
Fire Protection:	-
Soils Engineer:	-

Title:	Overall Site Plan
Project Number:	19281
Drawn by:	ML
Date:	09/08/22
Revision:	

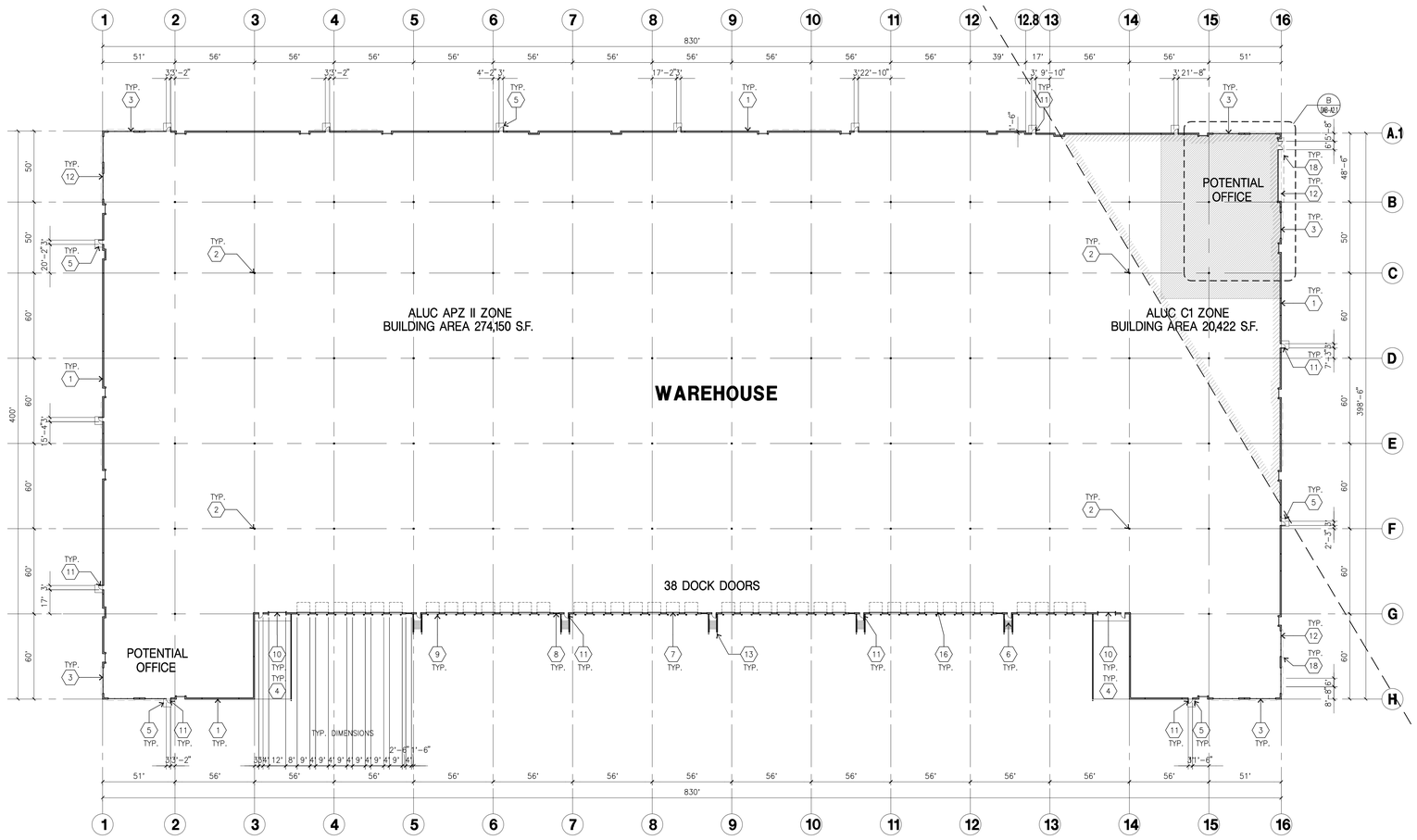
Sheet:

DAB-A1.1



ENLARGED FLOOR PLAN B
scale: 1/8" = 1'-0"

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



OVERALL FLOOR PLAN A
scale: 1"=40'-0"

SCALE: 1" = 40'-0"

FLOOR PLAN KEYNOTES

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH. PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY AS REQ. BY CITY INSPECTOR.
6. EXTERIOR CONCRETE STAIR W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
7. 9' X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
8. 4' X 8' LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER TYPICAL.
10. 12' X 14' DRIVE THRU. SECTIONAL O.H., STANDARD GRADE.
11. 3' X 7' HOLLOW METAL EXTERIOR MAN DOOR.
12. SOFFIT LINE ABOVE
13. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
14. EMPLOYEE BREAK/SMOKING AREA.
15. PRE-CAST CONCRETE WHEEL STOP.
16. Z GUARD
17. APPROXIMATE LOCATION OF ELECTRICAL ROOM
18. METAL CANOPY ABOVE.
19. INTERIOR BIKE RACK TYPICAL.
20. INTERIOR ROOF DRAIN W/ 2 OVERFLOW SCUPPERS.

FLOOR PLAN GENERAL NOTES

1. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.

2. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.

3. SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.

4. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.

5. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS. SEE "S" DRAWINGS FOR POUR STRIP LOCATION.

6. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.

7. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.

8. FOR DOOR TYPES AND SIZES, SEE DETAIL SHEET -. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.

9. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.

10. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN HARDWARE.

11. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.

12. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.

13. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1

14. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW, SEE A/A4.1 OFFICE SECTION.

FLOOR SLAB & POUR STRIPS REQ.

THESE NOTES ARE VERY MIN. REQUIREMENT. SEE "S" DWGS FOR ADDITIONAL REQUIREMENTS

1. FLOOR COMPACTION - 95%
2. TRENCH COMPACTION - 90%
3. BUILDING FLOOR SLAB:
   A. 6" THICK MIN. UN-REINFORCED CONCRETE OVER COMPACTED SOILS
   B. 3/4" - 16"LONG @ 12" O.C. DOWELS AT ALL CONSTRUCTION JOINTS
      3/4" - 16"LONG @ 24" O.C. DOWELS IN DOWEL BASKET AT ALL CONTROL JOINTS.
   C. 4,000 P.S.I. REQUIREMENT.
   D. SLUMP TO BE 4" +/- 1"
   E. JOINT SPACING PER A.C.I. 302-IR-96
   F. SAW-CUT DEPTH 1/4 T; SOFT SAW-CUTTING WITHIN 2 HRS OF FINISHING
4. CONTRACTOR TO BUILD FOR CLASS V FLOOR PER A.C.I. 302-IR-96
5. CONCRETE SLAB TO HAVE STEEL FLOAT HARD TROWEL BURNISHED FINISH.
6. CONTRACTOR TO CURE SLAB TO BE WET CURING USING BURLINE FOR 7 DAYS MIN.
7. ALL EQUIPMENT & MOVING VEHICLES SHALL BE DIAPERED.
8. NO CRANES, CONCRETE TRUCKS, OR ANYTHING HEAVIER WILL BE PLACED ON THE SLAB.
9. SLAB TO BE FF50 FL35 MEASURED WITHIN 24 HOURS.
10. NO FLY ASH IN THE CONCRETE
11. WHERE INDICATED, PROVIDE VAPOR BARRIER (15MIL STEGO OR EQUAL) UNDER THE CONCRETE SLAB. PROVIDE SAND PER SOILS ENGINEER OR MANUFACTURER'S RECOMMENDATION.

CONCRETE SLAB IN FUTURE OFFICE AREAS, WHERE SAND OVER VIQUEEN ARE REQUIRED, SHALL BE NATURALLY HYDRATED WITHOUT USE OF BURLENE, CURING COMPOUND, OR RELEASE AGENTS.
CONTROL/CONSTRUCTION JOINTS SHALL NOT BE FILLED WITH MM-80 JOINT FILLER IN FUTURE OFFICE AREAS.
12. SEAL CONCRETE SLAB W/ "LIPIDOLITH" SEALER

CAUTION : IF THIS SHEET IS NOT A 30" X 42" IT IS A REDUCED PRINT

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Project:

RAMONA EXPY.
&
INDIAN AVE.

PERRIS, CA

Consultants:

Civil:	UNITED ENG.
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	-
Fire Protection:	-
Soils Engineer:	-

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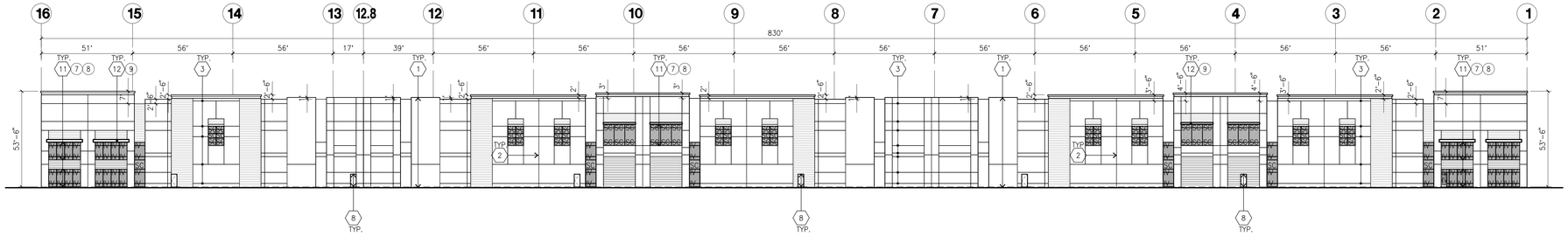
Project Number:	19281
Drawn by:	ML
Date:	09/08/22
Revision:	

Sheet:

DAB-A2.1



NORTH ELEVATION (A)
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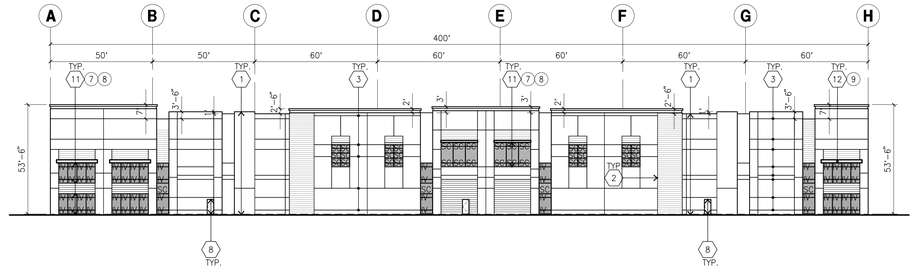

WEST ELEVATION (B)
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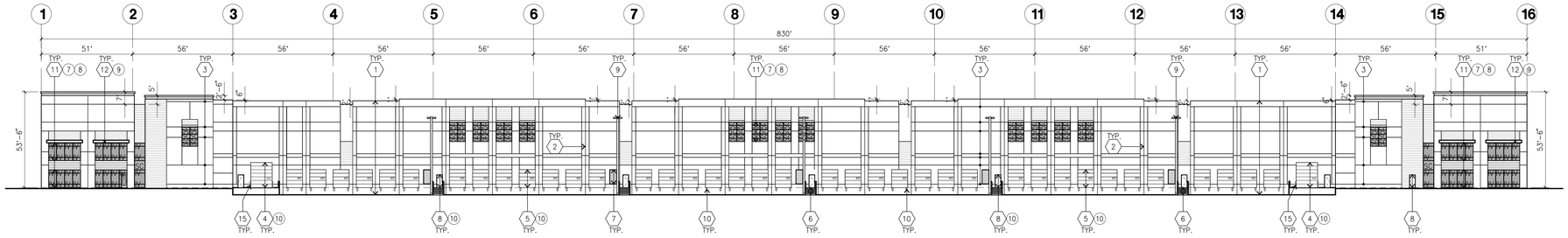

SOUTH ELEVATION (C)
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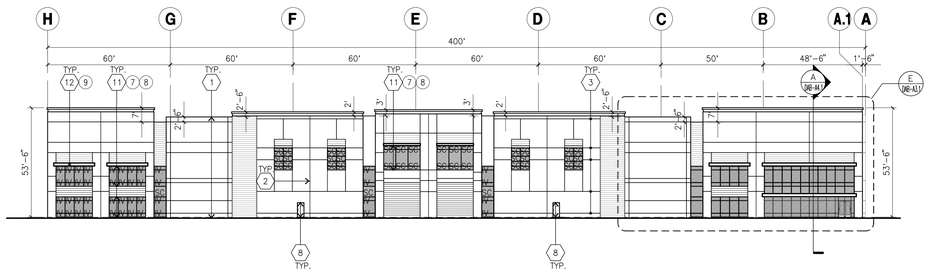

EAST ELEVATION (D)
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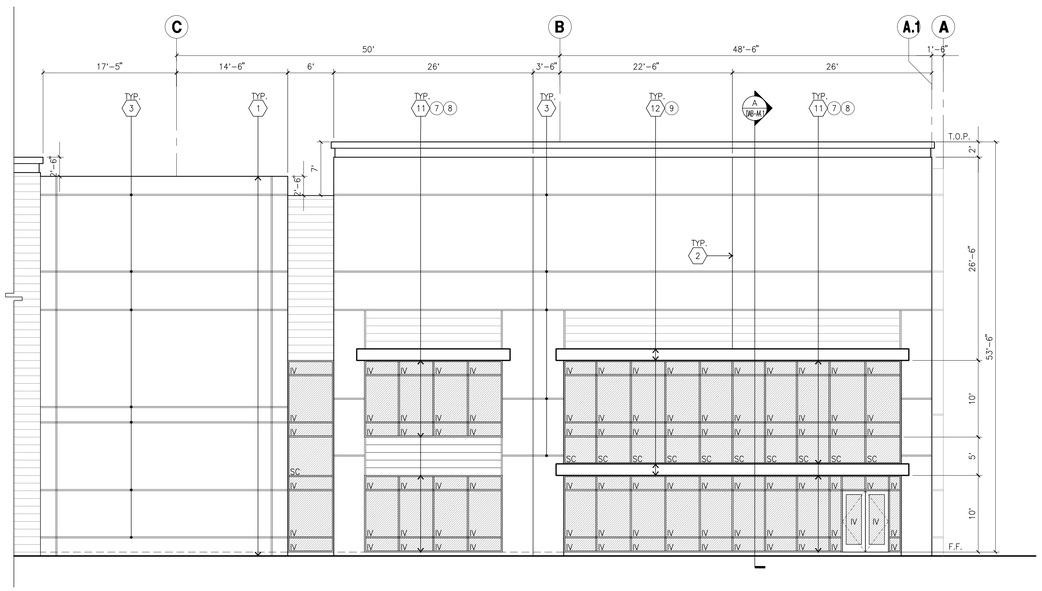

ENLARGED EAST ELEVATION (E)
scale: 1/8"=1'-0"

ELEVATION KEYNOTES

1. CONCRETE TILT-UP PANEL.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. 12' X 14' OVERHEAD DOOR @ DRIVE THRU. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. 9' X 10' OVERHEAD DOOR @ DRIVE THRU. 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.
7. 4' X 8' METAL LOUVER OPENING FOR VENTILATION. PAINT TO MATCH BUILDING COLOR.
8. HOLLOW METAL DOORS. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR.
9. EXTERIOR DOWN SPOUTS W/ 2 OVERFLOW SCUPPERS.
10. DOCK DOOR BUMPER TYPICAL.
11. 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. METAL CANOPY.
13. KNOCK OUT PANEL.
14. INTERIOR ROOF DRAIN W/ 2 OVERFLOW SCUPPERS.
15. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.

ELEVATION GENERAL NOTES

1. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
2. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
3. T.O.P. EL.= TOP OF PARAPET ELEVATION.
4. F.F. = FINISH FLOOR ELEVATION.
5. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST – MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
7. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
8. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
9. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
10. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

ELEVATION COLOR LEGEND/SCHED.

1. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7005 PURE WHITE
2. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7071 GRAY SCREEN
3. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7072 ONLINE
4. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7073 NETWORK GRAY
5. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7074 SOFTWARE
6. CONCRETE TILT-UP PANEL. COLOR : SHERWIN WILLIAMS SW 7075 WEB GRAY
7. GLAZING COLOR : BLUE REFLECTIVE GLAZING
8. MULLIONS COLOR : BLACK ANODIZED
9. METAL CANOPY : SHERWIN WILLIAMS PRO-INDUSTRIAL, WATER-BASED B53-1150 SEMI-GLOSS IN COLOR: SW 7075 WEB GRAY
10. DOOR COLORS : SHERWIN WILLIAMS SW 7005 PURE WHITE
11. CONCRETE TILT-UP PANEL. : 1X6 IPE SIDING (EASED-EDGE) LONGEST LENGTH IS 20' MINIMUM SEAMS MONOLITHIC STACKING

GLAZING LEGEND

NOTE: ALL EXTERIOR AND INTERIOR GLAZING SHALL BE TEMPERED.

S SPANDREL GLASS V VISION GLASS

ALL GLAZING TO BE TEMPERED

GLAZING : PPG SOLARCOOL (2) GRAYLITE II + SOLARBAN 60 (3) CLEAR
U: 0.29, SHGC: 0.1, VLT: 5%
1" INSULATED GLASS UNIT WITH 1/2" AIRSPACE AND (2) 1/4" LITES

SPANDREL : 1/4" SOLARCOOL GRAYLITE SPANDREL W/ HARMONY GRAY OPACICOAT PAINTED ON REFLECTIVE.

MULLIONS: ANODIZED CLEAR

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RAMONA EXPY.
&
INDIAN AVE.

PERRIS, CA

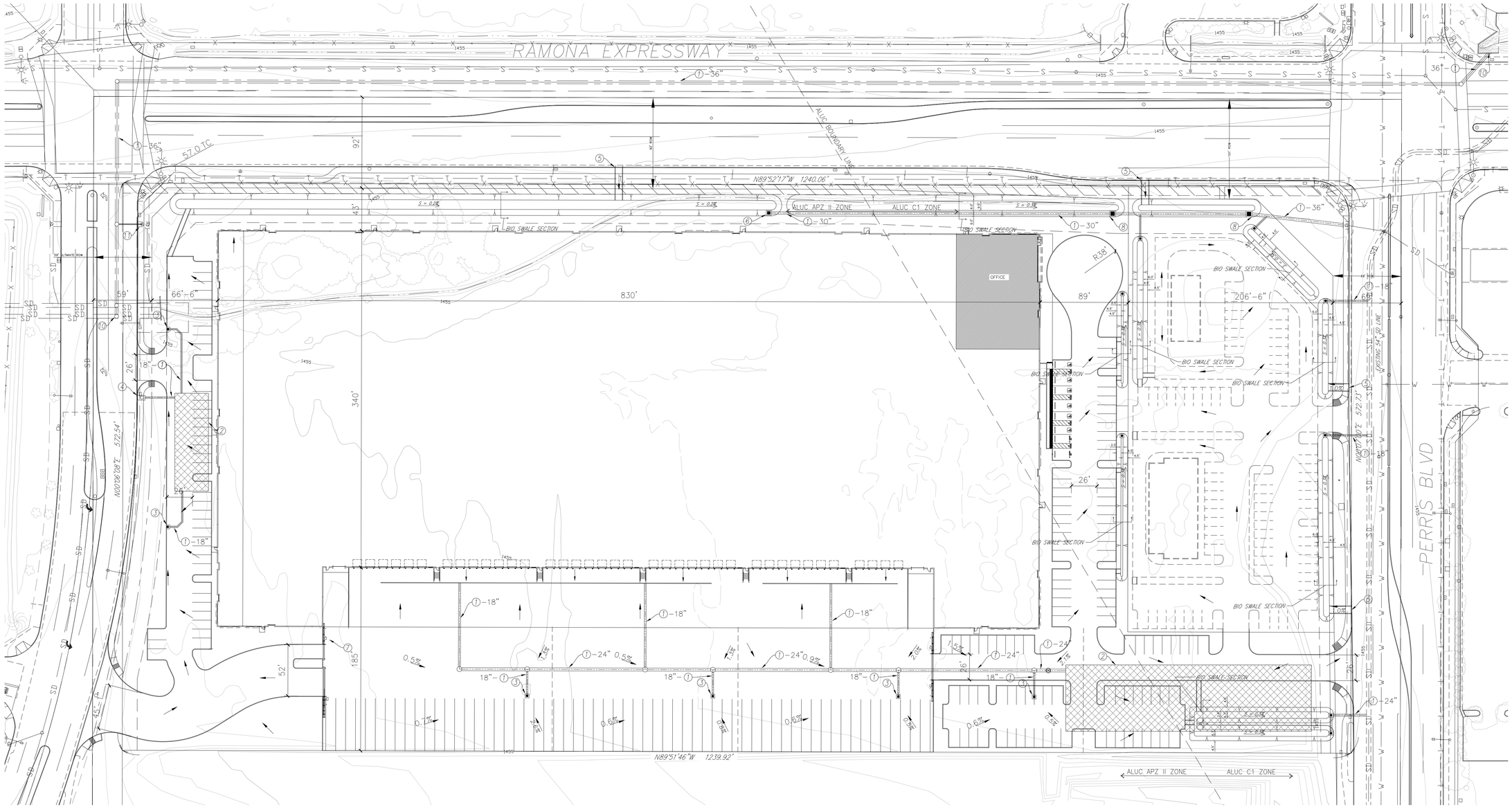
Consultants:

Civil:	UNITED ENG.
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	-
Fire Protection:	-
Soils Engineer:	-

Title:	Elevations
Project Number:	19281
Drawn by:	ML
Date:	09/08/22
Revision:	

Sheet:

DAB-A3.1



LEGEND/ABBREVIATION

CF	CURB FACE	TC	TOP OF CURB
FG	FINISH GRADE	TG	TOP OF GRATE
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	℄	PROPERTY LINE
GB	GRADE BREAK	PED.	PEDESTRIAN
HP	HIGH POINT	TYP.	TYPICAL
INV	INVERT		EXISTING FIRE HYDRANT
LP	LOW POINT		WATER VALVE
R/W	RIGHT-OF-WAY	W	WATER METER
P=XX.X	PAD ELEVATION		STREET LIGHT
FF=XX.X	FINISH FLOOR ELEVATION		PROPOSED STORM DRAIN LINE
2%	DIRECTION OF DRAINAGE/GRADE	1425	EXISTING CONTOUR

CONSTRUCTION NOTES:

1. CONSTRUCT RCP STORM DRAIN AND FITTINGS AT SIZES SHOWN.
2. CONSTRUCT CONTECH TYPE OR EQUIVALENT UNDERGROUND STORAGE SYSTEM PER PLAN.
3. CONSTRUCT GRATE INLET PER PLAN SIZING AND DETAIL PER GRADING PLAN
4. CONSTRUCT CATCH BASIN (WIDTH PER PLAN) PER COUNTY OF RIVERSIDE STD.
5. CONSTRUCT INVERTED UNDER SIDEWALK DRAIN CAST IN PLACE PER COUNTY OF RIVERSIDE STD. NO. 309.
6. INSTALL JENSEN PRECAST DROP INLET DI363636, WITH PEDESTRIAN GRATE.
7. INSTALL TRASH ENCLOSURE PER LANDSCAPE ARCHITECT PLAN.
8. INSTALL JENSEN PRECAST DROP INLET DI484848, WITH PEDESTRIAN GRATE.
9. INSTALL VALLEY GUTTER AT 0.5% SLOPE PER DETAIL B.

CONSTRUCTION NOTES:

10. CONNECT EXISTING LOWES OUTLET PIPES TO A SINGLE 36" RCP STORM DRAIN LINE AS SHOWN. CONNECT TO CLOSEST EXISTING LINE E FACILITIES AT TIME OF FINAL DESIGN.
11. RECONSTRCUT OR REPLACE CATCH BASIN TO CONNECT TO 36" RCP STORM DRIAN LINE AS SHOWN.

BGR NO. _____ WDID:

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.
THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE

ENGINEER — REVISIONS — CITY
DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS
APPROVED BY:
CITY ENGINEER DATE

SEAL-ENGINEER: REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER F. LENZ — NO. 63001 EXP. 6/30/22 — CIVIL — STATE OF CALIFORNIA

ueg united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.unitedeng.com

PREPARED UNDER THE DIRECTION OF:
CHRISTOPHER F. LENZ 63001
DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
BOLT AND WASHER, ILLEGIBLE, AT THE CENTERLINE INTERSECTION OF MARKHAM STREET AND PERRIS BOULEVARD, RIVERSIDE COUNTY BENCHMARK NUMBER BM-CSA4 AND RCM81.
ELEVATION = 1455.224'

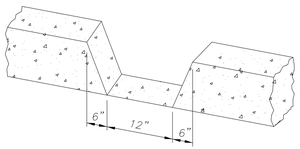
SCALE 1"=50'
FIELD BOOK
DESIGN
DRAWN
CHECKED

ZONING CASE #DPR 19-00012 I.P. No. _____
PERRIS CA, 92571
COUNTY OF RIVERSIDE

PRELIMINARY GRADING & DRAINAGE PLAN SWC RAMONA & PERRIS ALUC EXHIBIT

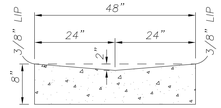
FOR: PACIFIC DEV. PARTNERS
W.O.
CITY FILE NO. DPR 19-00012

SHEET NO. 1 OF 2 SHEETS



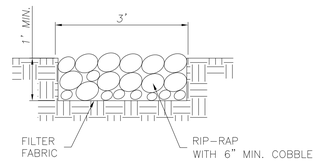
DETAIL "A" - CURB FACE OPENING

NTS



DETAIL "B" - VALLEY GUTTER

NTS



DETAIL "C" - RIP-RAP PAD

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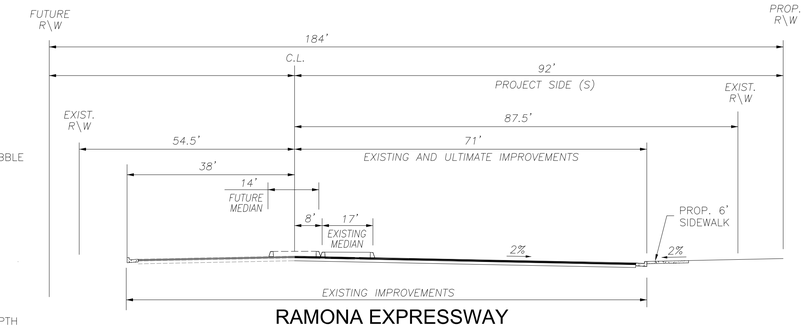
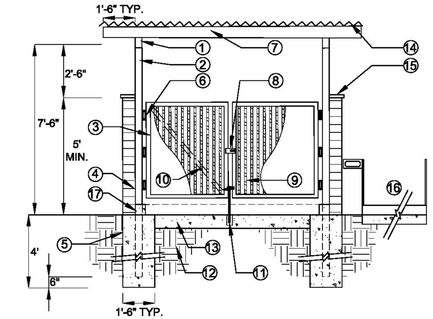


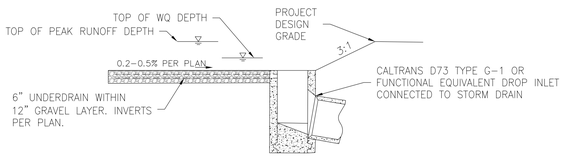
RAMONA EXPRESSWAY
STANDARD WIDTH

N.T.S.



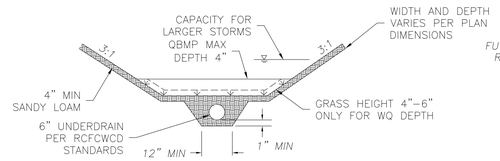
TRASH ENCLOSURE COVER (TYP.) NOTE 7

N.T.S.



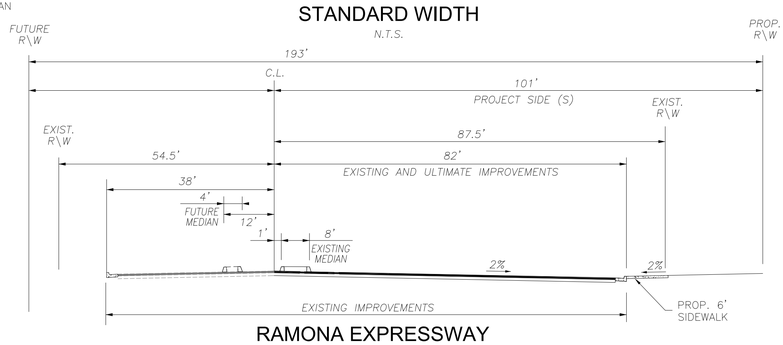
BIO-SWALE END DRAIN DETAIL

NTS



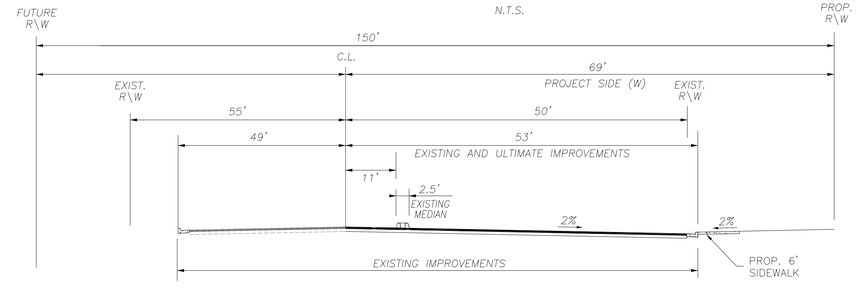
BIO-SWALE SECTION

NTS



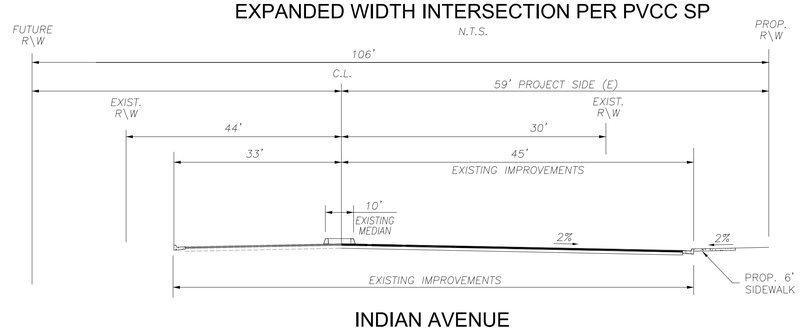
RAMONA EXPRESSWAY
EXPANDED WIDTH INTERSECTION PER PVCC SP

N.T.S.



PERRIS BOULEVARD
EXPANDED WIDTH INTERSECTION PER PVCC SP

N.T.S.



INDIAN AVENUE
EXPANDED WIDTH INTERSECTION PER PVCC SP

N.T.S.

TRASH ENCLOSRE COVER NOTES:
1. 4-INCH X 6-INCH METAL BEAM POWDER COATED
2. 4-INCH X 4-INCH TUBULAR STEEL POST. SET POST FLUSH TO WALL. GROUT FILL POST SOLID. PAINT WITH 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT.
3. GATE FRAME CONTINUOUS, ATTACH GATE FRAME TO STEEL POST WITH 3 HEAVY DUTY HINGES. CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
4. CMU WALL / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
5. CONCRETE FOOTING / REFER TO STRUCTURAL ENGINEERS SPECIFICATIONS FOR REINFORCEMENT.
6. HEAVY DUTY HINGES.
7. METAL TRELLIS POWDER COATED (OR 2 COATS ZINC PRIMER & 2 COATS SATIN FINISH PAINT); COLOR TO BE SELECTED /REFER TO SHOP DRAWINGS FOR ROOF FRAMING.
8. 3-INCH X 8-INCH X 1/4-INCH THICK GALVANIZED STEEL SJOP PLATE AND LOCKABLE KEEPER. WELD TO GATE FRAME - AS SHOWN / CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
9. MINI-V-BEAM 26 GAUGE WITH ENDURA CLAD FINISH AS MANUFACTURED BY ASC PACIFIC INC. OR APPROVED EQUAL. SPOT WELD TO ANGLE FRAME (CONTRACTOR TO SUBMIT SHOP DRAWINGS).
10. 9-INCH X 1/2-INCH GALVANIZED STEEL DIAGONAL CROSS BRACE / FILLET WELD TO FRAME AND SPOT WELD TO MINI-V-BEAM (AT BACK OF GATE).
11. HEAVY DUTY DROP CRANE BOLT. ATTACH TO GATE FRAME. SET 1-6 INCHES LONG X 1-INCH O.D. GALVANIZED PIPE SLEEVE TO ACCEPT BOLT. 'STANLY' CD 10009-18 INCHES OR APPROVED EQUAL.
12. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.
13. 6-INCH THICK PCC CONCRETE PAD WITH 6 X 6 X 10 WWM.
14. METAL ROOF; CORRUGATED STEEL - BERRIDGE LEAD-COPE STRAIGHT S-DECK / INSTALL PER MANUFACTURERS SPECIFICATIONS.
15. 8-INCH X 2-INCH X 16-INCH CMU CAP TO MATCH WALL COLOR.
16. DISABLED ACCESSIBLE RAMP AND HANDRAIL IF REQUIRED.
17. CONCRETE CURB

NOTES
A. CONCRETE FOOTING TO ACHIEVE 4300 PSI @ 28 DAYS.
B. TRASH BINS - SIZE AND NUMBER AS REQUIRED BY CITY.

CONSTRUCTION NOTES:

1. CONSTRUCT RCP STORM DRAIN AND FITTINGS PER G&D PLANS AT SIZES SHOWN.
2. CONSTRUCT CONTECH TYPE OR EQUIVALENT UNDERGROUND STORAGE SYSTEM PER PLAN.
3. CONSTRUCT GRATE INLET PER PLAN SIZING AND DETAIL PER GRADING PLAN
4. CONSTRUCT CATCH BASIN (WIDTH PER PLAN) PER COUNTY OF RIVERSIDE STD.
5. CONSTRUCT INVERTED UNDER SIDEWALK DRAIN CAST IN PLACE PER COUNTY OF RIVERSIDE STD. NO. 309.
6. INSTALL JENSEN PRECAST DROP INLET DI363636, WITH PEDESTRIAN GRATE.
7. INSTALL TRASH ENCLOSURE PER LANDSCAPE ARCHITECT PLAN.
8. INSTALL JENSEN PRECAST DROP INLET DI484848, WITH PEDESTRIAN GRATE.
9. INSTALL VALLEY GUTTER AT 0.5% SLOPE PER DETAIL B.

BGR NO. _____ WDID:

DIGALERT
DIAL BEFORE YOU DIG
TWO WORKING DAYS BEFORE YOU DIG
TOLL FREE 1-800-227-2600
A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL ENCROACHMENT PERMIT AND/OR GRADING PERMIT HAS BEEN ISSUED.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE
			ENGINEER	CITY	

DESIGN BY: DRAWN BY: CHECKED BY:

CITY OF PERRIS

APPROVED BY:

CITY ENGINEER DATE

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER F. LENZ NO. 63001 EXP. 6/30/22 CIVIL STATE OF CALIFORNIA

ueg united engineering group
8885 Haven Avenue - Suite 195
Rancho Cucamonga, CA 91730
Phone: 909.466.9240
www.uniteded.com

PREPARED UNDER THE DIRECTION OF:

CHRISTOPHER F. LENZ 63001

DATE: _____ REGISTRATION EXPIRES 6-30-24

BENCH MARK:
BOLT AND WASHER, ILLEGIBLE, AT THE CENTERLINE INTERSECTION OF MARKHAM STREET AND PERRIS BOULEVARD, RIVERSIDE COUNTY BENCHMARK NUMBER BM-CSA4 AND RCM81.

ELEVATION = 1455.224'

SCALE 1"=50'
FIELD BOOK
DESIGN
DRAWN
CHECKED

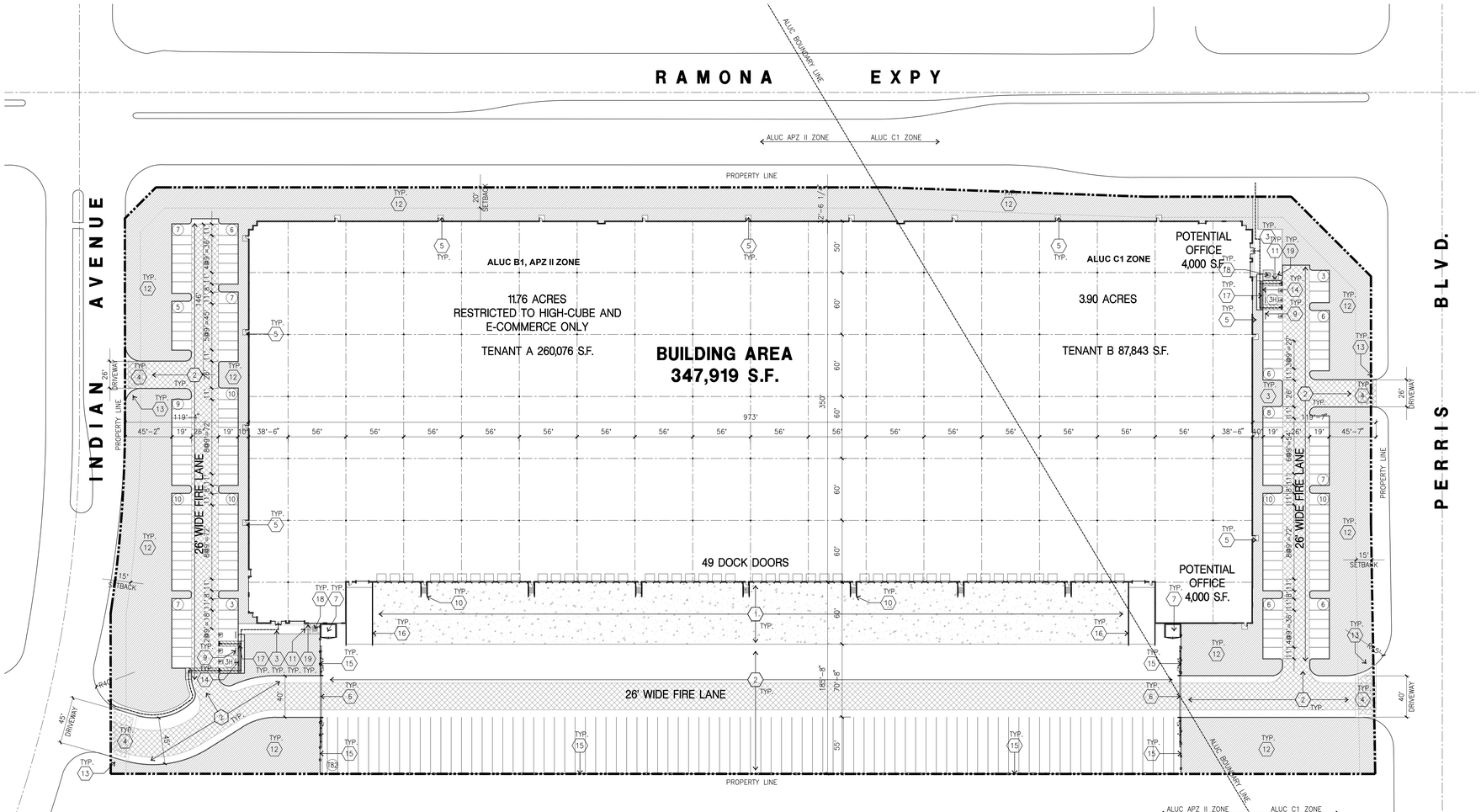
ZONING CASE #DPR 19-00012 I.P. No. _____
PERRIS CA, 92571
COUNTY OF RIVERSIDE

PRELIMINARY GRADING & DRAINAGE PLAN SWC RAMONA & PERRIS ALUC EXHIBIT DETAIL SHEET

FOR: PACIFIC DEV. PARTNERS
W.O.
CITY FILE NO. DPR 19-00012

SHEET NO. 2 OF 2 SHEETS

ZAP1390MA19 ORIGINAL PLAN



OVERALL SITE PLAN (A)

scale: 1"=50'-0"

SCALE: 1"=50'-0"

0 50' 100' 150'

TRUE NORTH

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING.
3. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
4. DRIVEWAY APRONS TO BE CONSTRUCTED.
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH.
6. PROVIDE 8' HIGH METAL GATES W/ KNOX-BOX PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
7. TRASH ENCLOSURE PER CITY STANDARD.
8. APPROXIMATE LOCATION OF TRANSFORMER.
9. PRE-CAST CONCRETE WHEEL STOP.
10. CONCRETE FILLED GUARD POST "6 DIA. U.N.O. 42" H.
11. DESIGNATED SMOKING AREA.
12. LANDSCAPE. ALL LANDSCAPE AREAS INDICATED BY SHADING.
13. ACCESSIBLE ENTRY SIGN.
14. ACCESSIBLE PARKING STALL SIGN.
15. 8' HIGH METAL FENCE.
16. 42" HIGH CONCRETE GUARDWALL.
17. TRUNCATED DOME.
18. EMPLOYEE BREAK AREA.
19. EXTERIOR BIKE RACK.

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY: TBD
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH U.N.O.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PUBLIC FACILITIES DEVELOPMENT.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC FACILITIES DEVELOPMENT.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB.
16. ALL GROUND MOUNTED UTILITY STRUCTURES SUCH AS TRANSFORMERS, HVAC EQUIPMENT AND BACK FLOW PREVENTION VALVES SHALL BE LOCATED OUT OF VIEW FROM A PUBLIC STREET OR ADEQUATELY SCREENED THROUGH THE USE OF LANDSCAPING AND/OR MASONRY WALLS.

SITE LEGEND

- CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- ASPHALT CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL (9' X 19')
- DISABLED PARKING STALL (9' X 19') + 5' W/ ACCESSIBLE AISLE
- DISABLED PARKING (VAN) STALL (12' X 19') + 5' W/ ACCESSIBLE AISLE
- LANDSCAPED AREA
- PATH OF TRAVEL
- 26' FIRE WIDE FIRELANE
- EXISTING PUBLIC FIRE HYDRANT
- F.H. PRIVATE FIRE HYDRANT-APPROXIMATE LOCATION

ALUC CALCULATION

HIGH CUBE : 1 PER 1,428 S.F.

E-COMMERCE : 1 PER 1,000 S.F.

PROJECT INFORMATION

Owner/Applicant
PR PARTNERS, LLC
30220 RANCH VIEJO RD, STE B
SAN JUAN CAPISTRANO, CA 92675
TEL : (949) 481-0463
CONTACT: LARS ANDERSON

Applicant's Representative
HPA, INC.
18831 BARDEEN AVE. - SUITE 100
IRVINE, CA 92612
PHONE: (949) 862-2138
FAX: (949) 863-0851
CONTACT: NANCY PARK

Project Address
SW CORNER OF PERRIS BLVD AND RAMONA EXPY
PERRIS, CA

Zoning
PROPOSED ZONING : (LI) INDUSTRIAL

Code Analysis
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS

Assessors Parcel Number
303-060-020

Construction Type
CONCRETE TILT-UP BUILDING

BUILDING OCCUPANCY : S-1 / B
CONSTRUCTION TYPE : III-B

ESFR SYSTEM

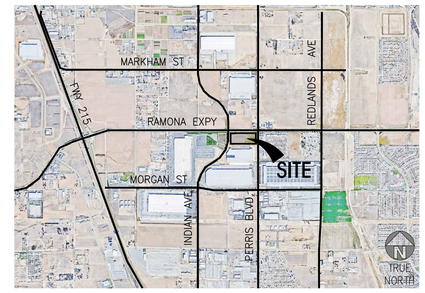
Legal Description

PRELIMINARY TITLE REPORT #910090999-K26

BLOCKS 9 TO 12, INCLUSIVE OF FIGADOTA FARMS NO. 17 IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AS SHOWN BY MAP ON FILE IN BOOK 17 PAGE 32 OF MAPS, RECORDS OF SAID COUNTY;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED OCTOBER 7, 1958 AS INSTRUMENT NO. 58-71763 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

VICINITY MAP



PROJECT DATA

SITE AREA	
In sq. ft.	682,778 s.f.
In acres	15.7 ac
BUILDING AREA	
Office	8,000 s.f.
Proposed : High Cube / Alternate : E-commerce	339,919 s.f.
TOTAL	347,919 s.f.
COVERAGE	51.0%
AUTO PARKING REQUIRED	
1st 20K @ 1/1,000 sf	20 stalls
2nd 20K @ 1/2,000 sf	10 stalls
Over 40K @ 1/5,000 sf	62 stalls
TOTAL	92 stalls
AUTO PARKING PROVIDED	
Standard (9'x19')*	136 stalls
Standard Accessible (9'x19')	3 stalls
Van Accessible (12'x19')	3 stalls
TOTAL	142 stalls
*End stalls 11'x19'	
TRAILER PARKING PROVIDED	
Trailer (10'x55')	82 stalls
Zoning Ordinance for City	
Current Zoning Designation - Perris Valley	
Commercial Center SP (PVCC-SP) - Commercial	
Proposed Zoning Designation - (L.I) Industrial	
MAXIMUM FLOOR AREA RATIO	
F.A.R. - .75	
MAXIMUM LOT COVERAGE	
Coverage - 50%	
SETBACKS	
Indian Ave. - 15' *	
Ramona Expy. - 20' *	
Side / rear - 0'	
* Front yards for structures shall be increased 5' for each 10' of structure height greater than setback from property line	
LANDSCAPE REQUIRED	
Percentage	12%
LANDSCAPE PROVIDED	
Percentage	15.9%
In sq. ft.	108,545 s.f.

CAUTION : IF THIS SHEET IS NOT A 30" X 42" IT IS A REDUCED PRINT

HPA architecture

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

Owner:

PR PARTNERS. LLC
c/o
PACIFIC DEVELOPMENT PARTNERS LLC
30220 RANCHO VIEJO RD
SAN JUAN CAPISTRANO, CA 92675
TEL : 949-481-0452

Project:

RAMONA EXPY.
&
INDIAN AVE.

PERRIS, CA

Consultants:

Civil: -
Structural: -
Mechanical: -
Plumbing: -
Electrical: -
Landscape: -
Fire Protection: -
Soils Engineer: -

Title: Overall Site Plan

Project Number: 19281
Drawn by: NP
Date: 08/19/19
Revision:

Sheet:

DAB-A1.1

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 City of Perris Planning Department should be contacted on non-ALUC issues. For more information please contact City of Perris Planner Kenneth Phung 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 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: **November 10, 2022**

TIME OF HEARING: **9:30 A.M.**

CASE DESCRIPTION:

ZAP1544MA22 – PR Partners, LLC (Representative: Mike Naggar & Associates) – City of Perris Case Nos. PLN19-00012 (Specific Plan Amendment), PLN19-05287 (Zone Change), DPR19-00012 (Development Plan Review). A proposal to construct a mixed-use industrial/commercial development including a 304,572 square foot e-commerce warehouse building with mezzanines, a 2,010 square foot restaurant building with drive-thru, and a 4,950 square foot retail/restaurant building with drive-thru on a 16.12 acre parcel, located on the southwest corner of Perris Boulevard and Ramona Expressway. The applicant also proposes amending the Perris Valley Commerce Specific Plan (SPA No. 13) and changing 14.1 acres of the site's zoning from Commercial to Light Industrial (with 1.99 acres of the site remaining Commercial). (The Commission previously found consistent on this site ZAP1390MA19, a proposal to construct a 347,919 square foot industrial e-commerce and warehouse building on 16.1 acres, and a proposal to amend the Perris Valley Commerce Center Specific Plan, and change the site's zoning from Commercial to Light Industrial (Airport Compatibility Zones B1-APZ-II and C1 of the March Air Reserve Base/Inland Port Airport Influence Area).

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

APPLICATION FOR MAJOR LAND USE ACTION REVIEW

ALUC STAFF ONLY

ALUC Case Number: ZAP1544MA22 Date Submitted: 9/14/22

AIA: March Zone: B1-APZ-II/C1 Public Hearing ☑ Staff Review ☐

Applicant

Applicant Full Name: PR Partners, LLC

Applicant Address: 11601 Wilshire Blvd. #2110. Los Angeles, CA 90025

Phone: (310) 393-4141 **Email:** mtb@pdpllc.net

Representative/ Property Owner Contact Information

Representative: Lars Andersen **Email:** lars@pdpsjc.net

Phone: (949) 481-0463 E. 111

Address: 30220 Rancho Viejo Road, B. San Juan Capistrano, CA 92675

Property Owner: PR Partners, LLC **Email:** mtb@pdpllc.net

Phone: (310) 393-4141

Address: 11601 Wilshire Blvd. #2110. Los Angeles, CA 90025

Local Jurisdiction Agency

Agency Name: City of Perris Phone: (951) 943-5003

Staff Contact: Kenneth Phung **Email:** kphung@cityofperris.org

Address: 135 N. D Street. Perris, CA 92570 : :

Local Agency Case No.: PLN1900012 (SPA), PLN19-05287 (ZC), DPR19-00012 (DPR)

Project Location

Street Address: SWC of Perris Blvd and Ramona Expressway Gross Parcel Size.: 16

Assessor's Parcel No.: 303-060-020

Solar

Is the project proposing solar Panels? Yes ☐ No ☑ If yes, please provide solar glare study. (only if in Zone C or higher)

Data

Site Elevation:(above mean sea level)	1,464 feet AMSL
Height of Building or structures:	53'
What type of drainage basins are being proposed and the square footage:	Sq Ft of vegetative Swale area.

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, County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, CA 92501, Phone: 951-955-5132 Fax: 951-955-5177 Website: www.rcaluc.org

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM:	3.1
HEARING DATE:	December 15, 2022
CASE NUMBER:	ZAP1541MA22 – Perris Land Company, LLC (Representative: Johnson Aviation)
APPROVING JURISDICTION:	City of Perris
JURISDICTION CASE NO:	PLN21-05218 (Specific Plan Amendment), DPR21-00013 (Development Plan Review), PLN21-05216 (Conditional Use Permit), PLN21-05219 (Tentative Parcel Map No. 38292)
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:	Portion between 60 – 65 CNEL contour, and portion below 60 CNEL contour
MAJOR ISSUES:	None

RECOMMENDATION: Staff recommends that the Commission CONTINUE the matter to the January 12, 2023, meeting, pending completion of the Air Force review of the project.

PROJECT DESCRIPTION: A proposal for a mixed-use commercial industrial development on 55.86 gross acres which includes: 8 commercial buildings totaling 37,215 square feet consisting of retail, restaurant, and gas station with convenience store and car wash; and a 950,224 square foot high-cube industrial warehouse building with mezzanines. The applicant also proposes to amend the Perris Valley Commerce Center to allow a rezone of 19.44 acres of Business Park Office (BPO) and 24.25 acres of Commercial (C) to Light Industrial (LI). The applicant also proposes to divide the site's 55.86 acres into 8 parcels. The applicant also proposes to construct a 550,000 square foot rooftop solar panel system on the proposed industrial building.

PROJECT LOCATION: The site is located southerly of Ramona Expressway, westerly of Webster Avenue, easterly of Nevada Avenue, and northerly of Morgan Street, approximately 7,713 feet southwesterly of the southerly end of Runway 14-32 at March Air Reserve Base.

BACKGROUND:

Non-Residential Average Acre 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 C1, where

Zone C1 limits average intensity to 100 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 (March ALUCP), the following rates were used to calculate the occupancy for the proposed project:

- High Cube Warehouse – 1 person per 1,428 square feet,
- Office – 1 person per 200 square feet,
- Retail – 1 person per 115 square feet,
- Restaurant dining area – 1 person per 15 square feet, and
- Restaurant kitchen area – 1 person per 200 square feet.

The project proposes to construct a mixed-use commercial industrial development on 55.86 acres which includes: 8 commercial buildings totaling 37,215 square feet consisting of retail, restaurant, and gas station with convenience store and car wash; and a 950,224 square foot high-cube industrial warehouse building with mezzanines. The project also proposes to divide the site's 49.97 acres into 8 parcels. Therefore, the average intensity must be considered on a lot-by-lot basis:

- Parcel 1 (1.50 acres) Building 1 proposes a 4,500 square foot restaurant building with 16 car-stack drive thru, which includes 720 square feet of dining area and 450 square feet of kitchen area, accommodating 74 people, resulting in an average intensity of 49 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 2 (1.40 acres) Building 2 proposes a 7,200 square foot retail building (no food), accommodating 63 people, resulting in an average intensity of 45 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 3 (1.16 acres) Building 3 proposes a 4,500 square foot restaurant building with a 24 car-stack drive thru and 20-outdoor dining seats, which includes 720 square feet of dining area, 450 square feet of kitchen area, accommodating 106 people, resulting in an average intensity of 91 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 4 (1.49 acres) Building 4 proposes a 4,500 square foot restaurant building with a 24 car-stack drive thru and 20-outdoor dining seats, which includes 720 square feet of dining area, 450 square feet of kitchen area, accommodating 106 people, resulting in an average intensity of 71 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 5 (1.62 acres) Building 5 proposes a 6,000 square foot retail/restaurant building with a 13 car-stack drive thru and 20-outdoor dining seats, which includes 3,000 square feet of retail area, 480 square feet of dining area, and 300 square feet of kitchen area, accommodating 99 people, resulting in an average intensity of 61 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 6 (1.15 acres) Building 6 proposes a 2,400 square foot (coffee) restaurant building

with a 7 car-stack drive thru and 20-outdoor dining seats, which includes 360 square feet of dining area, 624 square feet of kitchen area, accommodating 58 people, resulting in an average intensity of 50 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 7 (3.08 acres) Buildings 7 and 8 proposes a 4,600 square foot gas station convenience store with 16 fueling spaces and a 3,515 square foot car wash building, accommodating 95 people, resulting in an average intensity of 31 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 people per acre.

- Parcel 8 (44.46 acres) proposes a 950,224 square foot high-cube industrial warehouse building with mezzanines, which includes 840,224 square feet of high-cube warehouse area, 10,000 square feet of office area, 90,000 square feet of high-cube warehouse mezzanine area, and 10,000 square feet of office mezzanine area, accommodating 751 people, resulting in an average intensity of 17 people per acre, which is consistent with Compatibility Zone C1 average intensity criterion of 100 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 (568 standard vehicles, 314 trailer spaces), the total occupancy would be estimated at 1,166 people for an average intensity of 21 people per acre, which is consistent with the Compatibility Zone C1 average intensity criterion of 100 people per acre.

Non-Residential Single-Acre Intensity: Compatibility Zone C1 limits maximum single-acre intensity to 250 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 for the proposed 950,224 square foot high-cube industrial warehouse building with mezzanines, would include 33,560 square feet of first floor high-cube warehouse area,10,000 square feet of first floor office area, 33,560 square feet of second floor high-cube warehouse area, and 10,000 square feet of second floor office area, resulting in a single acre occupancy of 147 people which is consistent with the Compatibility Zone C1 single acre criterion of 250 people.

The project also proposes to construct 8 commercial buildings on separate parcels totaling 37,215 square feet consisting of retail, restaurant, and gas station with convenience store and car wash. A separate single acre intensity analysis was performed:

- The entire Building 1 including 16 car-stack drive thru, 720 square feet of dining area and 450 square feet of kitchen area, and a portion of Building 2 which includes 4,114 square feet of retail area, accommodating 110 people, which is consistent with Compatibility Zone C1 maximum single acre criterion of 250 people.

- Building 3 including 24 car-stack drive thru and 20-outdoor dining seats, 720 square feet of dining area, 450 square feet of kitchen area, and Building 4 including 24 car-stack drive thru and 20-outdoor dining seats, 720 square feet of dining area, 450 square feet of kitchen area, accommodating 212 people, which is consistent with Compatibility Zone C1 maximum single acre criterion of 250 people.

- Building 5 including 13 car-stack drive thru and 20-outdoor dining seats, 3,000 square feet of retail area, 480 square feet of dining area, and 300 square feet of kitchen area, and Building 6 including 7 car-stack drive thru and 20-outdoor dining seats, 360 square feet of dining area, 624 square feet of kitchen area, accommodating 157 people, which is consistent with Compatibility Zone C1 maximum single acre criterion of 250 people.

- Building 7 including a 4,600 square foot gas station convenience store with 16 fueling spaces, and Building 8 which includes a 3,515 square foot car wash building, accommodating 95 people, which is consistent with Compatibility Zone C1 maximum single acre criterion of 250 people.

March Air Reserve Base/United States Air Force Input: Given that the project site is located in Zone C1 south of the southerly runway of March Air Reserve Base, and proposes rooftop solar panels, the March Air Reserve Base staff was notified of the proposed project and sent plans and a solar glare hazard study for their review. Comments from the Air Force regarding this project are still pending.

Prohibited and Discouraged Uses: The applicant does not propose any uses prohibited or discouraged in Compatibility Zone C1 (children's schools, day care centers, hospitals, nursing homes, libraries, places of assembly, highly noise-sensitive outdoor nonresidential uses and hazards to flight).

Flight Hazard Issues: Structure height, electrical interference, and reflectivity/glare are among the issues that solar panels in the airport influence area must address. The project's photovoltaic (PV) panel structures would be located on the rooftop of the proposed industrial building 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 after-image ("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 solar panels on the proposed 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 no 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 totaling 25,249 minutes of 'green' level glare, lasting up to 150 minutes a day, between October to March, from 7:00 a.m. to 10:00 a.m.

- Runway 14/32 C-17/KC-135 traffic pattern totaling 6,861 minutes of 'green' level glare, lasting up to 35 minutes a day, throughout the year, from 6:00 a.m. to 6:00 p.m.

- Runway 14/32 Overhead Aviation traffic pattern totaling 10,174 minutes of 'green' level glare lasting up to 55 minutes a day, throughout the year, from 6:00 a.m. to 5:00 p.m.

The total of 42,284 minutes of "green" level glare represents less than 16 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.

Noise: The March ALUCP depicts the northerly portion of the site as being between the 60 – 65 CNEL contour range from aircraft noise, and the remainder southerly portion of the site as being below the 60 CNEL contour. Warehouse and office uses are identified as normally acceptable and marginally acceptable within the 60 – 65 CNEL contour range. Retail uses are also identified as marginally acceptable. Staff is recommending a condition to incorporate noise attenuation measures into the design of the office and retail areas of the buildings to such extent as may be required to ensure that interior noise levels from aircraft operations are at or below 45 CNEL.

Part 77: The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level (AMSL). At a distance of approximately 7,713 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 1,565 feet AMSL. The site's finished floor elevation is 1,491 feet AMSL and proposed building height is 47 feet, resulting in a top point elevation of 1,538 feet AMSL. Although, review of the building for height/elevation reasons by the FAA Obstruction Evaluation Service (FAAOES) is not required, the applicant submitted their Form 7460-1, and the FAA OES issued their Determination of No Hazard letter dated August 3, 2022 (2022-AWP-12523-OE thru2022-AWP-12526-OE) indicating that the project would not be an impact to air navigation.

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

Hazards to Flight: 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 7,713 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 7,713 feet), the project utilizes underground basins which will not contain surface water or attract wildlife and, therefore, would not constitute a hazard to flight.

Specific Plan Amendment: The applicant also proposes to amend the Perris Valley Commerce Center to allow a rezone of 19.44 acres of Business Park Office (BPO) and 24.25 acres of Commercial (C) 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, 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. The project proposes underground basins. 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.

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.

6. Noise attenuation measures shall be incorporated into the design of the office and retail areas of the structure, to the extent such measures are necessary to ensure that interior noise levels from aircraft operations are at or below 45 CNEL.

7. The project has been evaluated to construct a mixed-use commercial industrial development on 55.86 acres which includes: 8 commercial buildings totaling 37,215 square feet consisting of retail, restaurant, and gas station with convenience store and car wash; and a 950,224 square foot high-cube industrial warehouse 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.

8. 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 550,000 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.

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 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.

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, "near-miss," 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.

X:\AIRPORT CASE FILES\March\ZAP1541MA22\ZAP1541MA22sr.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

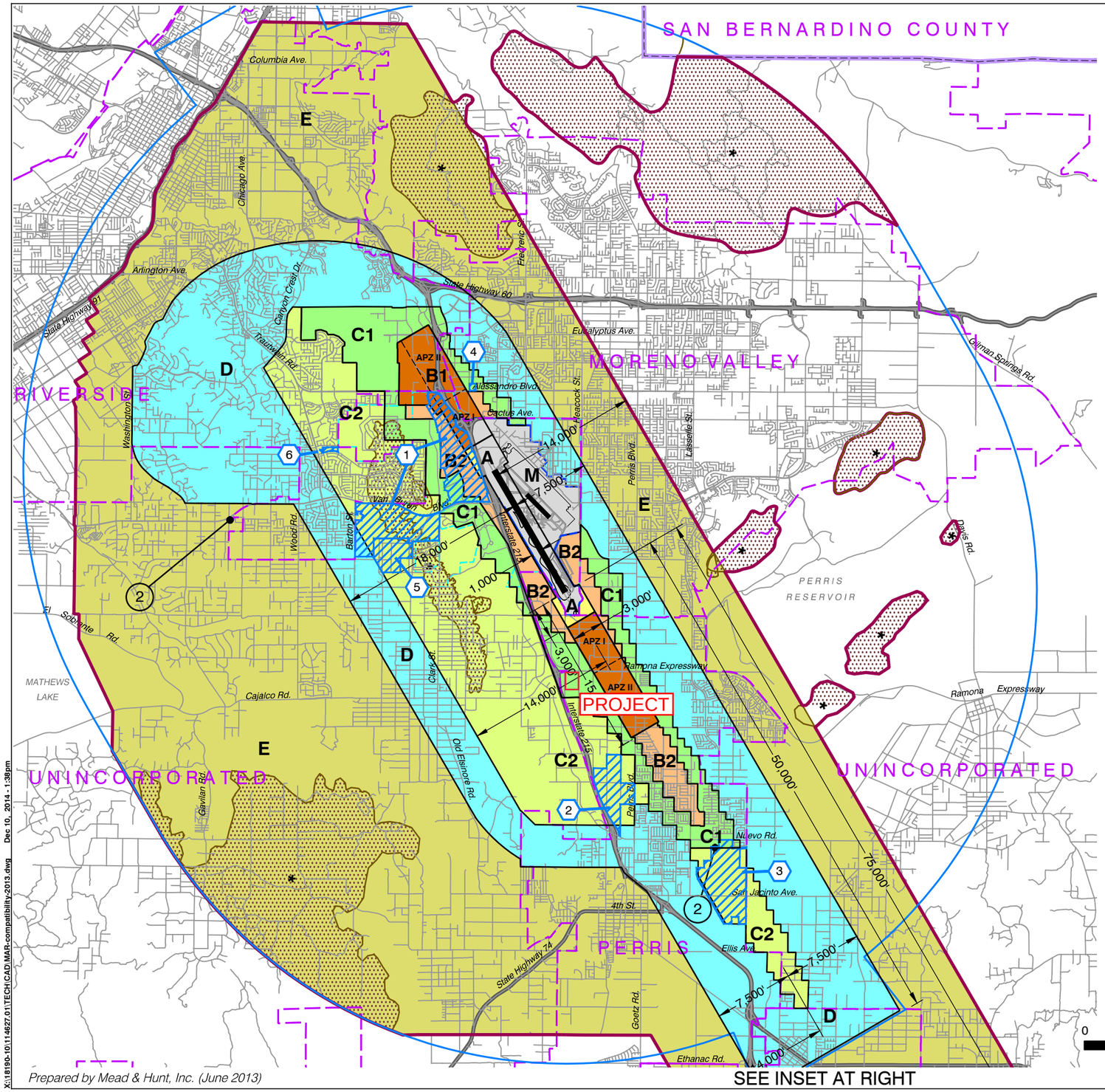
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



LEGEND

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M
- High Terrain Zone
- FAR Part 77 Military Outer Horizontal Surface Limits
- FAR Part 77 Notification Area

(1) Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.

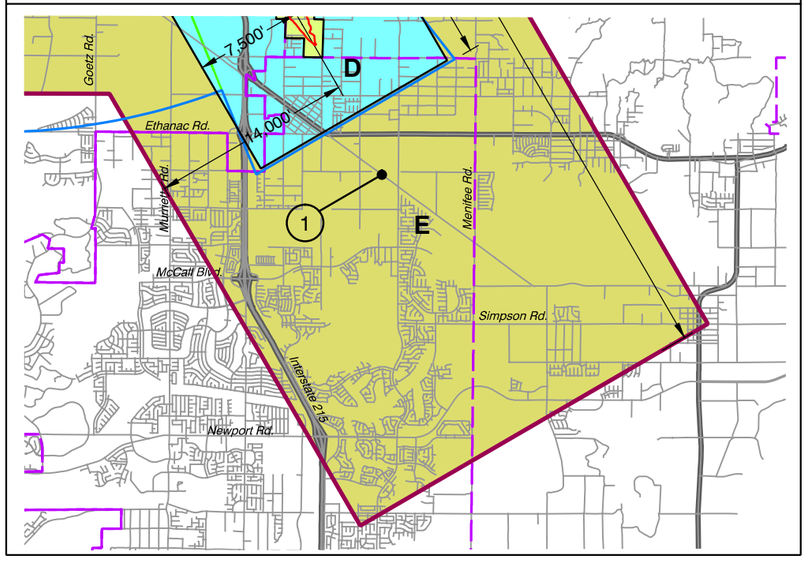
(2) Point at which departing aircraft typically reach 3,000 feet above runway end.

Boundary Lines

- March Air Reserve Base / Air Force Property
- March Joint Powers Authority Property Line
- County Boundary
- City Limits
- Site-Specific Exceptions (existing local agency commitments to development projects)

(1) March JPA: March Business Center/Meridian
(2) Perris: Harvest Landing
(3) Perris: Park West
(4) Moreno Valley: Affordable Housing
(5) March JPA: Ben Clark Training Center
(6) Riverside: Ridge Crest Subdivision

INSET



Riverside County
Airport Land Use Commission

March Air Reserve Base / Inland Port Airport
Land Use Compatibility Plan

(Adopted November 13, 2014)

Note:
All dimensions are measured from runway ends and centerlines.

N

0 2 4 MILES

Base map source: County of Riverside 2013

Prepared by Mead & Hunt, Inc. (June 2013)

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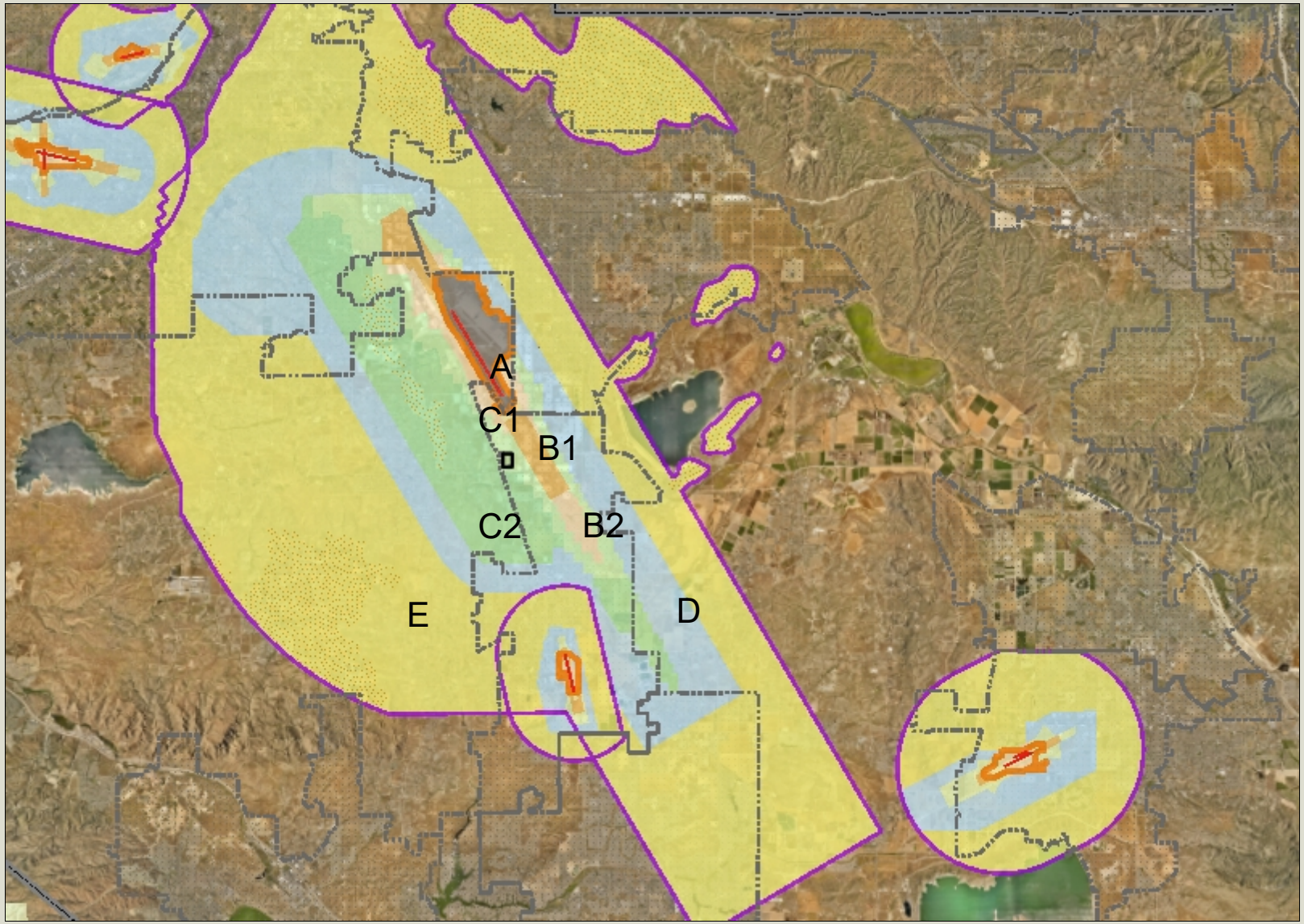
Map MA-1

Compatibility Map

March Air Reserve Base / Inland Port Airport

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 24,629 49,257 Feet

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Notes

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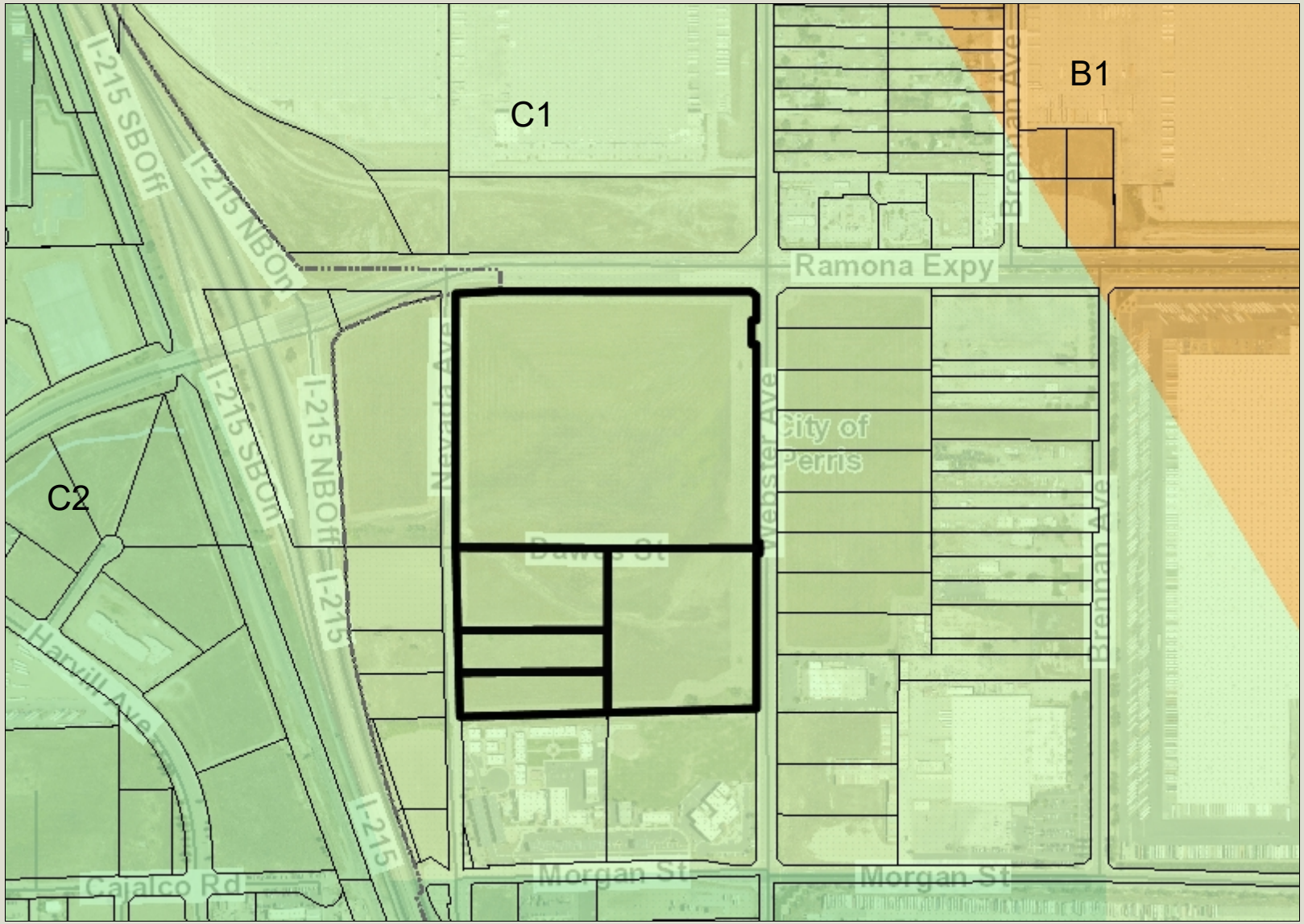

Legend

- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5

0 770 1,539 Feet

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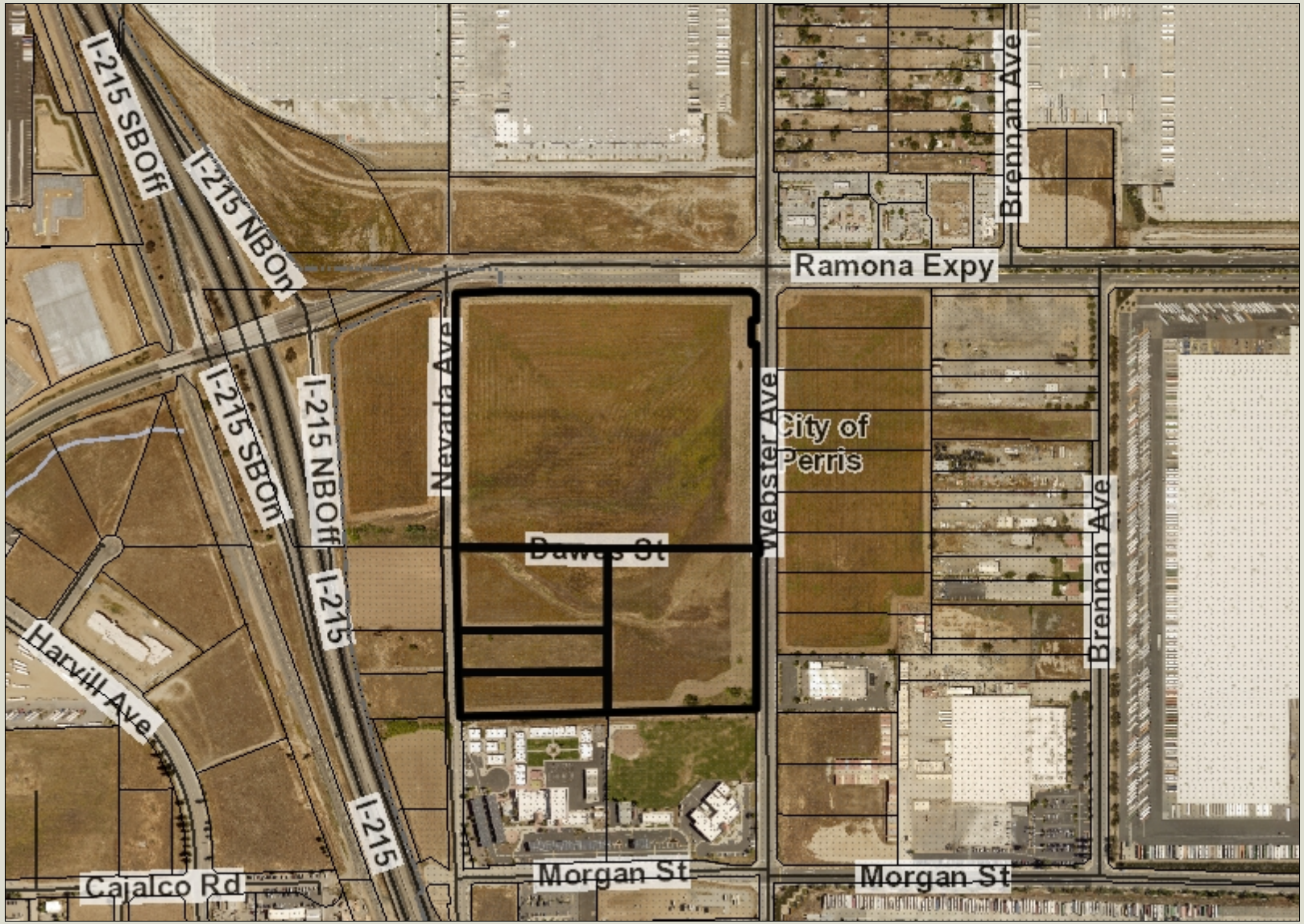

Legend

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

0 770 1,539 Feet

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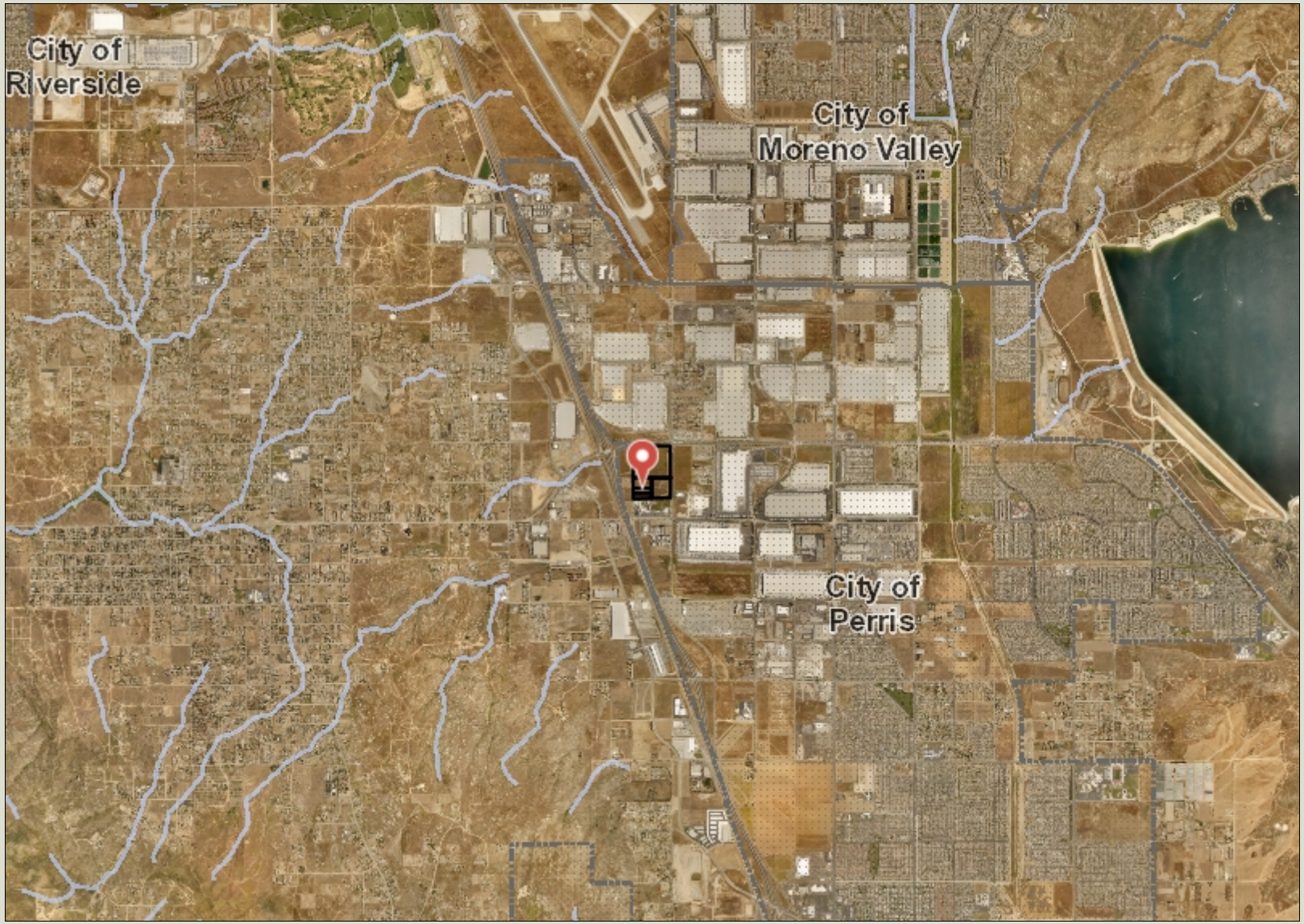

Legend

- Blueline Streams
- City Areas
- World Street Map

0 6,157 12,314 Feet

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Legend

- Blueline Streams
- City Areas
- World Street Map

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0 1,539 3,079 Feet

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Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

0 770 1,539 Feet

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Notes

Technical Memorandum

To: Jon Yolles, Covus Development
From: Nick Johnson, Johnson Aviation, Inc.
Date: October 26, 2022

Subject: Ramona Gateway Project - Airport Land Use Compatibility

A. Introduction and Finding

The Ramona Gateway Project (Project) is a proposed mixed-use retail and industrial development located in the City of Perris, California (City) and within the Airport Influence Area (AIA) of the March Air Reserve Base/Inland Port Airport (MARB/IPA or Airport). The Airport Land Use Compatibility Plan[1] (ALUCP) for MARB/IPA was adopted by the Riverside County Airport Land Use Commission (ALUC) in 2014. The March ALUCP provides specific airport land use guidance in addition to the ALUC's Countywide Policies[2] adopted in 2004. The City adopted its General Plan Land Use Element in 2005 and amended it in 2016[3] to incorporate the 2014 MARB/IPA ALUCP. The City adopted the Perris Valley Commerce Center Specific Plan[4] (PVCCSP) in 2012, with the latest amendment occurring in 2022. In 2018 the March Air Reserve Base (March ARB) Air Installations Compatible Use Zones (2018 AICUZ) Study[5] was updated from the original 2005 AICUZ. The 2018 AICUZ study provides the latest aircraft noise impact information associated with aircraft operations at the Base. The City adopted Chapter 19.51, March ARB/IP Airport Overlay Zone (MAOZ)[6] within the City's Zoning Code. The MAOZ ensures that the policies in the MARB/IPA ALUCP are adhered to when new development projects are proposed, and incompatible land uses are prevented. The Federal Aviation Administration (FAA) is required under 14 Code of Federal Regulations (CFR) Part 77[7] to protect navigable airspace by studying proposed developments and issuing determinations that a project would not be a hazard to air navigation.

The Project site is within the boundaries of the PVCCSP. The existing General Plan land use designation and zoning for the Project site is Specific Plan (i.e., the PVCCSP). The Project site has a PVCCSP land use designation of Commercial (northern portion of the Project site) and Business Professional Office (BPO) (southern portion of the Project). A Specific Plan Amendment is required for the proposed industrial use portion of the Project (to change the PVCCSP land use designation from Commercial and BPO to Light Industrial). Countywide ALUC Policies, Section 1.5.1(a) and State Law require an ALUC determination of consistency with the ALUCP prior to the approval by the City.

The intended use of the Project site is compatible within the AIA, and the ALUCP Zone C1. The occupancy analysis using the ALUCP guidance indicates that the total site intensity (people per acre) is less than the allowable parameters and both average and single-acre intensity are consistent with the ALUCP Zone C1 limits. ***Therefore, the proposed Project is found to be compatible with the parameters of the General Plan, the PVCCSP, the 2014 MARB/IPA ALUCP, MOAZ and the 2018 AICUZ study.***

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[1] https://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700
[2] https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/04-%20Vol.%201%20County%20wide%20Policies.pdf
[3] https://www.cityofperris.org/home/showpublisheddocument/457/637203139714030000
[4] https://www.cityofperris.org/home/showpublisheddocument/2647/637799977032200000
[5] https://www.marchjpa.com/documents/docs_forms/AICUZ_2018.pdf
[6] https://www.cityofperris.org/Home/ShowDocument?id=1835
[7] 14 CFR Part 77 – *Safe, Efficient Use, and Preservation of the Navigable Airspace*, https://www.ecfr.gov/current/title-14/chapter-I/subchapter-E/part-77

B. Purpose and Project Description

The purpose of this Technical Memorandum is to complete an airport land use compatibility assessment for the Project that addresses aviation safety, aircraft noise impacts, aircraft overflight, and airspace protection that addresses the operational risk to people and property within the Project site. This assessment is based on a review of relevant documents, local knowledge, and publicly available information.

The Project site is 55.86 gross acres located in the western portion of the PVCCSP planning area, in the City of Perris, in Riverside County. As per the ALUCP, gross acreage includes the property plus a share of adjacent roads and permanently dedicated open lands. Thus, the gross acreage calculations for this Project include right-of-ways (ROWS) and the stilling basin (concrete bypass channel).

The Project site consists of five Assessor Parcel Numbers (APNs), which includes 317-120-021; 317-130-048, -025, -021, and -017. The Project site is located south of Ramona Expressway; west of Webster Avenue; east of Nevada Avenue; and north of Val Verde Academy, Val Verde High School, and the Val Verde Regional Learning Center. The Project also includes off-site improvements along the site-adjacent roadways; the off-site improvement area encompasses approximately 11 acres. A natural gas line would also be extended off-site along Ramona Expressway between Webster Avenue and Brennan Avenue. The Project site is located approximately 600 feet east of Interstate (I)-215 and approximately 6.7 miles south of State Route (SR)-60.

The Project site is also located approximately 1.2 miles south of the MARB/IPA, is within the AIA, and is within the City's AOZ. MARB/IPA consists of two runways. The primary runway (Runway 14-32) is 13,300 feet in length and is jointly use for both military and civilian use. The second smaller runway, Runway 12-30, is just over 3,000 feet in length and its use is restricted to military-related light aircraft. Figure 1 shows the Property (outlined in red) in relation to the Airport.

Figure 1 - Project Site Relative to MARB/IPA

The Ramona Gateway Project proposes a mixed-use retail and industrial development in the western portion of the City of Perris, near existing transportation facilities and truck routes.

The Project site is proposed to have eight retail buildings (totaling 37,215 square feet [sf]) on 11.4 gross acres within the northern portion of the Project site, and a 950,224-sf industrial warehouse building on 44.46 gross acres within the southern portion of the Project site. Retail and industrial space details are shown in Tables 1 and 2.

The conceptual site plan (Figure 2) includes 37,215 sf of retail space consisting of three drive-thru restaurant buildings; two multi-tenant buildings, one of which would include a drive-thru; one coffee shop with drive-thru; one convenience store with a gas station; and one drive-thru express carwash facility (Table 1).

Table 1 – Project Retail Space Detail

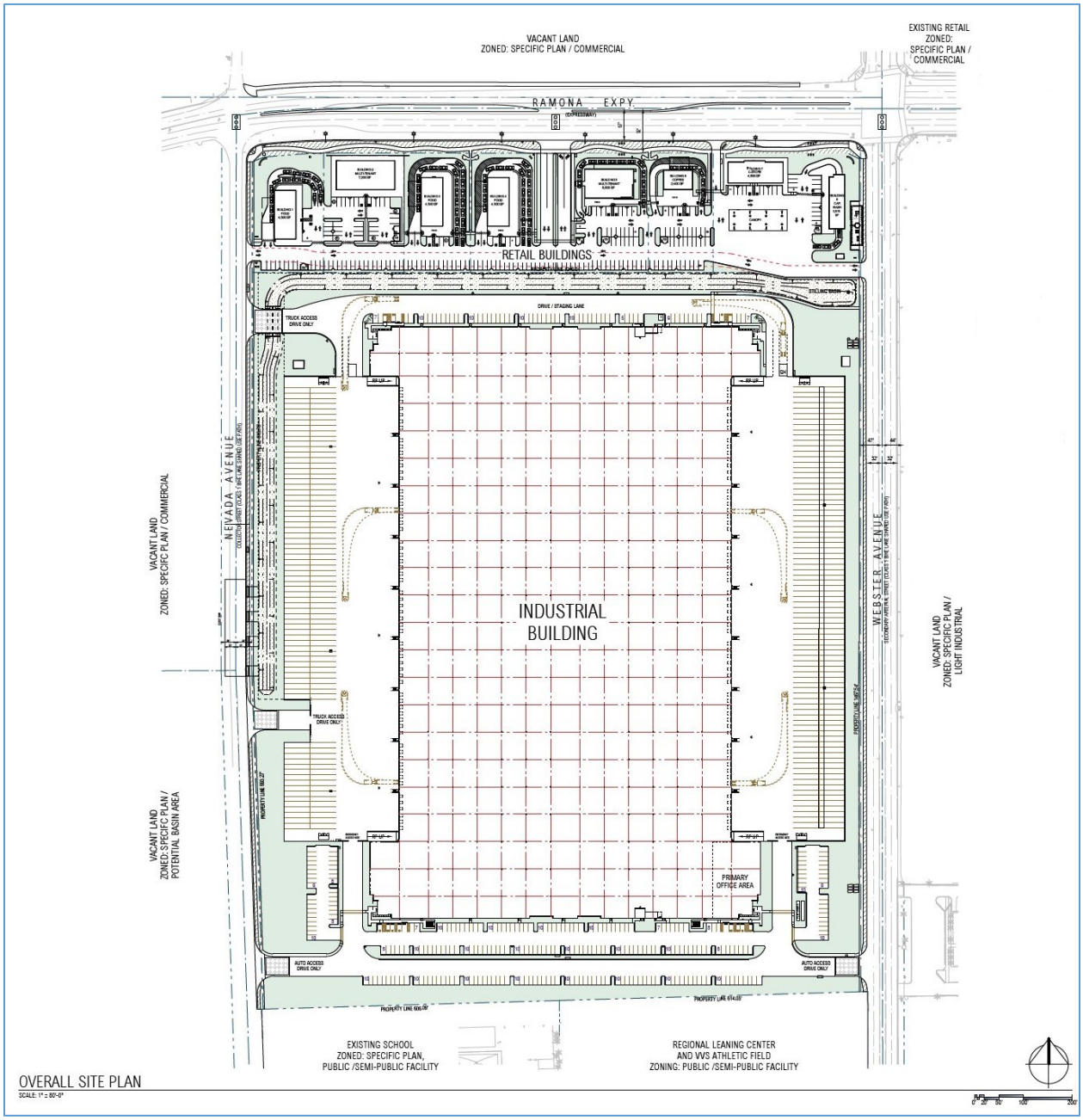
Building No.	Proposed Use	Area (sf)	Floor Area Ratio (FAR)	Lot Coverage (%)
Building 1	Drive-thru Restaurant	4,500	0.11	11.28
Building 2	Multi-Tenant	7,200		
Building 3	Drive-thru Restaurant	4,500		
Building 4	Drive-thru Restaurant	4,500		
Building 5	Multi-Tenant with drive-thru	6,000		
Building 6	Drive-thru Coffee	2,400		
Building 7	Convenience Store and Gas Station	4,600		
Building 8	Car Wash	3,515		
	Total Building Area	***37,215***		

The industrial component of the Project involves the construction and operation of a Class A high-cube warehouse building on 44.46 gross acres in the southern portion of the Project site. It is assumed that 95% of the building square footage would be operated as a high-cube non-sort fulfillment center warehouse and the remaining 5% would be operated as a high-cube cold storage warehouse. This industrial component may include up to 20,000 sf of ancillary office space.

Table 2 – Project Industrial Space Detail

Space Type	Area (sf)	FAR	Lot Coverage (%)
Building Footprint (ground level)	850,224	0.52	46.5
Mezzanine	100,000		
Total Building Area	***950,224***		

Figure 2 – Site Plan

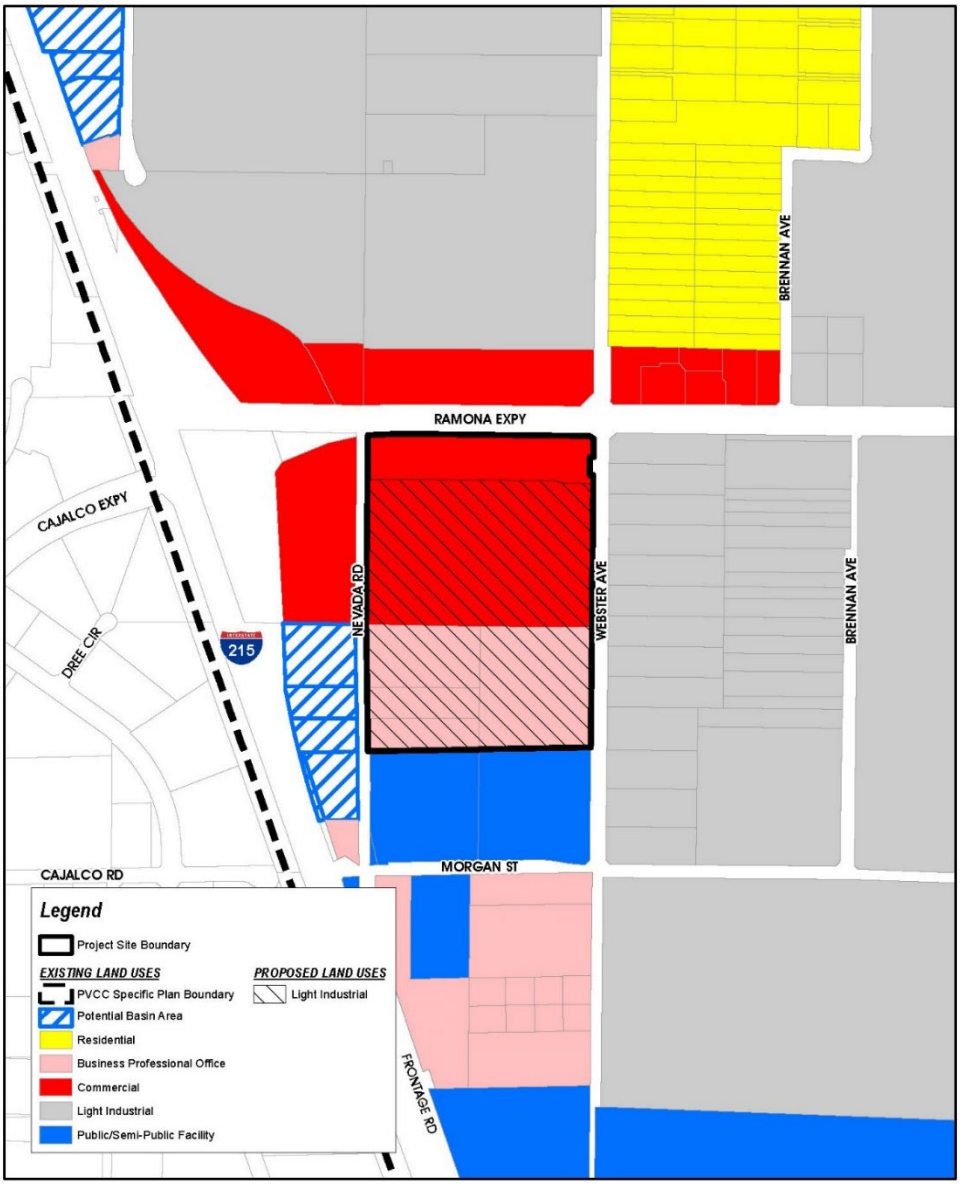


C. Land Use Jurisdiction and Compatibility

On January 10, 2012, the City of Perris City Council adopted the PVCCSP. The PVCCSP land uses allow for the development of approximately 3,500 acres which consist of industrial, commercial, and office uses, as well as public facilities.

The Project site is within the boundaries of the PVCCSP. The existing General Plan land use designation and zoning for the Project site is Specific Plan (i.e., the PVCCSP). The Project site has a PVCCSP land use designation of Commercial (northern portion of the Project site) and Business Professional Office (BPO) (southern portion of the Project). A Specific Plan Amendment is required for the proposed industrial use as shown in Figure 3.

Figure 3 – PVCCSP Existing and Proposed Land Use Designations



The PVCCSP and the Project site are within the City's AOZ, as shown on Figure 4. The City's General Plan Land Use Element and subsequently the PVCCSP incorporate the AOZ to ensure that the policies in the MARB/IPA ALUCP are adhered to when new development projects are proposed, and incompatible land uses are prevented. The MARB/IPA ALUCP was adopted in 2014 and is based on the U.S. Air Force's Air Installation Compatibility Use Zones Study for March Air Reserve Base (AICUZ) dated August 2005. The AICUZ was updated in 2018 because of the introduction of new aircraft, operational changes, and new flight tracks. This update provides new noise contours and information on accident potential. It does not change the dimensions of the clear zones or accident potential zones that are the basis for the ALUCP's compatibility zones used to evaluate land use compatibility.

The ALUCP is used to evaluate land use compatibility and development proposals in the vicinity of the Airport. The primary compatibility concerns are aircraft noise, the safety of people and property on the ground and in aircraft, the protection of airspace, and concerns related to overflights. The development restrictions associated with each zone consider the compatibility concerns of noise, safety, overflight, and airspace protection.

Specifically, the Project site is within Compatibility Zone C1. Zone C1 is the Primary Approach/ Departure Zone. Zone C1 is within or near the 60-CNEL contour. Accident potential risks are moderate in that aircraft fly at low altitudes over or near the zone. Single-event noise levels are potentially disruptive in this zone. Table 3 and 4 summarize the noise, safety, and land use compatibility criteria in the ALUCP for Zone C1.

Figure 4 – PVCCSP Boundary, Project Site, and MARB/IP Safety Zones

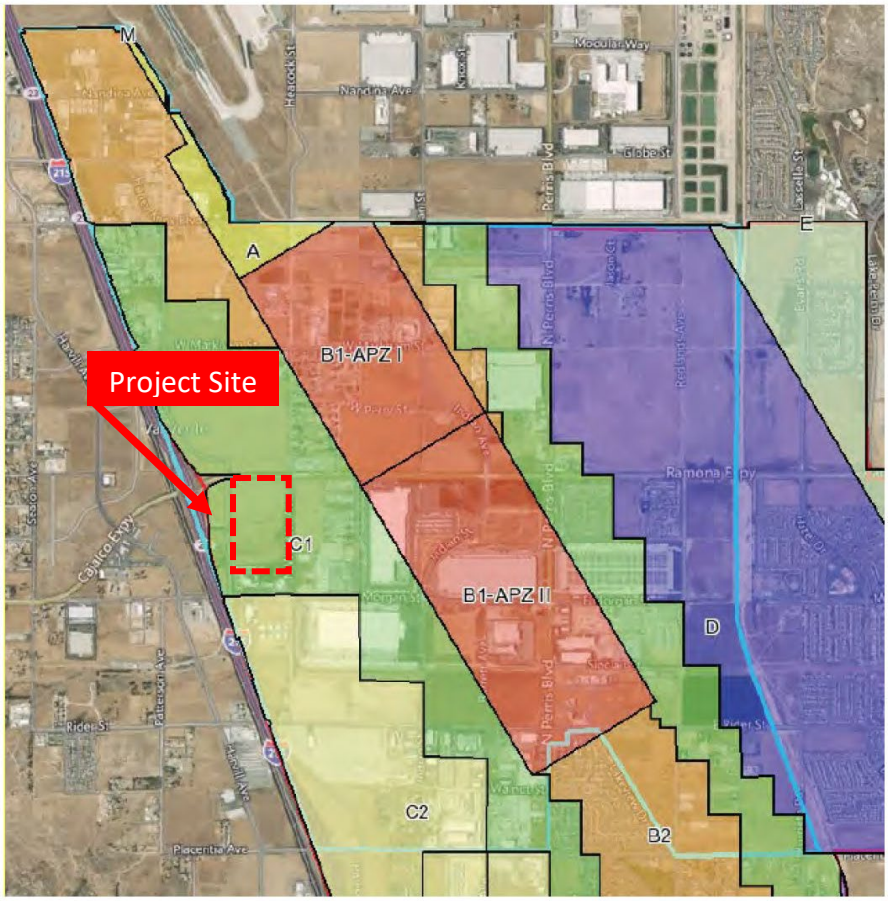


Table 3 – ALUCP Noise and Safety in C1

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
C1 *Primary Approach/ Departure Zone*	*Noise Impact: Moderate to High* ▸ Within or near 60-CNEL contour ▸ Single-event noise may be disruptive to noise-sensitive land use activities; aircraft <2,000 feet above runway elevation on arrival and generally <3,000 feet above runway elevation on departure	*Risk Level: Moderate* ▸ Beneath or adjacent to low altitude overflight corridors

Table 4 – ALUCP Land Use Compatibility Zone C1

		Density / Intensity Standards				Additional Criteria	
Zone	Locations	Residential (d.u./ac) [1]	Other Uses (people/ac) [2] Average [5]	Other Uses (people/ac) [2] Single Acre [6]	Req'd Open Land	Prohibited Uses [3]	Other Development Conditions [4]
C1	Primary Approach/ Departure Zone	≤3.0	100	250	No Req't	› Children's schools, day care centers, libraries › Hospitals, congregate care facilities, places of assembly › Noise-sensitive outdoor nonresidential uses [15] › Hazards to flight [8]	› Critical community infrastructure facilities discouraged [16, 20] › Aboveground bulk storage of hazardous materials discouraged [14, 20] › Sound attenuation as necessary to meet interior noise level criteria [18] › Airspace review req'd for objects >70 ft. tall [19] › Electromagnetic radiation notification [9] › Deed notice and disclosure [4]

With regards to the maximum density for "other uses" in Zone C1, the ALUCP allows an average intensity (people per acre) of 100. This means the total number of people permitted on a project site at any time, except rare special events, must not exceed the indicated usage intensity times the gross acreage of the site. The ALUCP allows a single acre intensity of 250. Clustering of nonresidential development is permitted; however no single acre of a project site shall exceed the indicated number of people per acre. Special risk-reduction building design measures are not applicable to MARB/IPA.

Prohibited noise-sensitive outdoor nonresidential uses in Zone C1 include major spectator-oriented sports stadiums, amphitheaters, concert halls and drive-in theaters. Prohibited hazards to flight in Zone C1 include physical, visual, and electronic forms of interference to aircraft operations, land uses that attract birds, and certain farming activities. In Zone C1, aboveground storage of more than 6,000 gallons of hazardous or flammable materials per tank is discouraged. Office space must have sound attenuation features sufficient to reduce the exterior aviation-related noise level to no more than CNEL 45 dB.

The Ramona Gateway Project proposes a mixed-use retail and industrial development in the western portion of the City of Perris, near existing transportation facilities and truck routes. The Project site is proposed to have eight retail buildings on 11.4 gross acres within the northern portion of the Project site, and a high-cube warehouse building on 44.46 gross acres within the southern portion of the Project site. A mixed-use retail and industrial development are considered compatible within Zone C1.

D. Maximum Occupancy

The intended use of the Property is a mix of retail and industrial. The Project site is proposed to have eight retail buildings (totaling 37,215 square feet [sf]) on 11.4 gross acres within the northern portion of the Project site, and a 950,224-sf industrial warehouse building on 44.46 gross acres within the southern portion of the Project site.

The industrial component of the Project (Figure 5 and Figure 6) involves the construction and operation of a Class A high-cube warehouse building. It is assumed that 95% of the building square footage would be operated as a high-cube non-sort fulfillment center warehouse and the remaining 5% would be operated as a high-cube cold storage warehouse. The Project proposes including 20,000 sf of ancillary office space.

Figure 5 – Industrial Site Plan

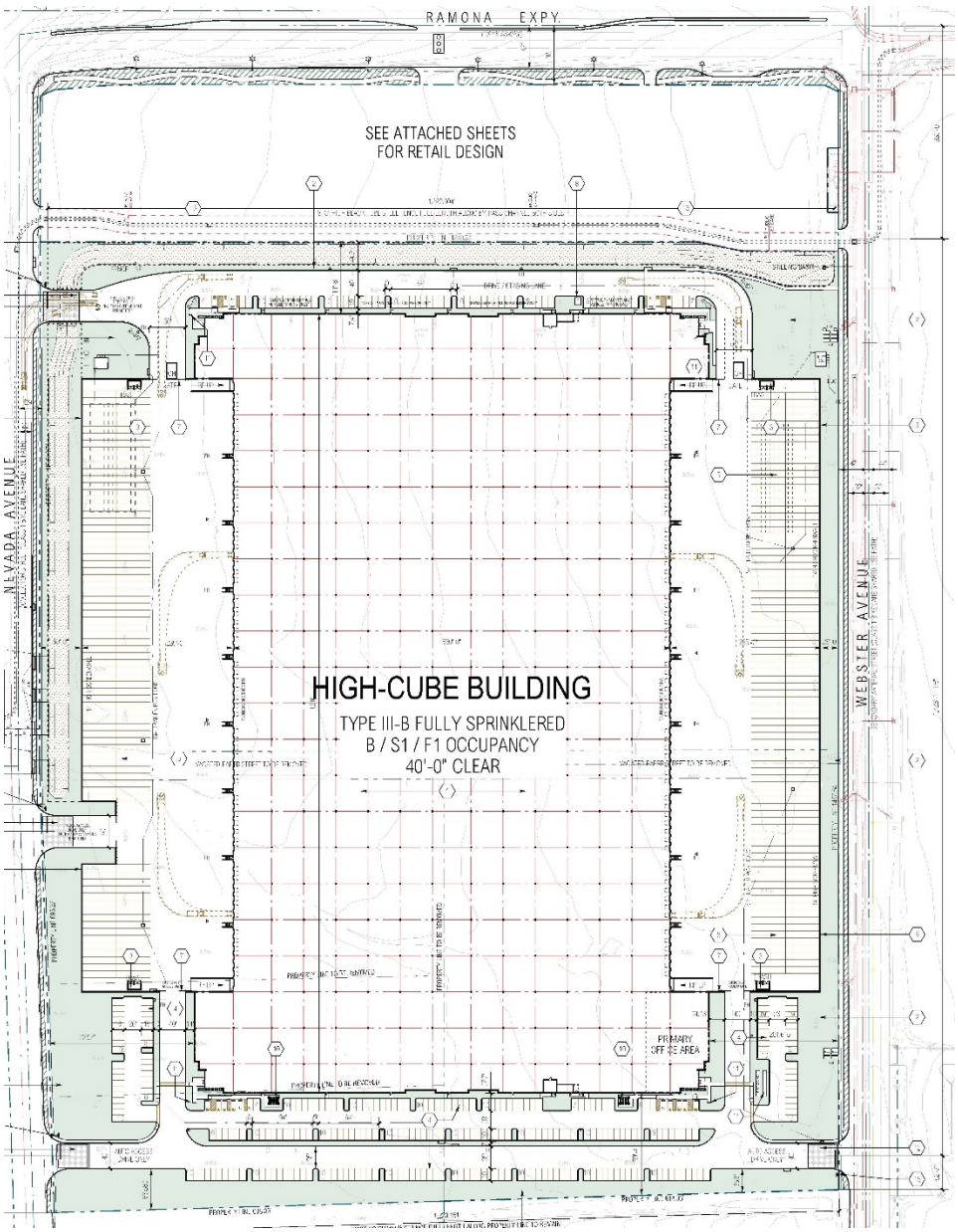


Figure 6 – Industrial Building Project Data

PROJECT DATA

INDUSTRIAL SITE AREA:	
NET SITE AREA:	1,838,978 SF / 42.22 AC
BUILDING AREA:	
FOOTPRINT	850,224 SF
FIRE PUMP HOUSE	00 SF
OFFICE MEZZANINE	10,000 SF
STORAGE MEZZANINE	90,000 SF
GUARD HOUSE	00 SF
TOTAL	950,224 SF
TOTAL INCLUDED PLANNED OFFICE AREA	20,000 SF
LOT COVERAGE: (50% MAX)	46.46 %
FAR COVERAGE:	51.67 %
AUTO PARKING REQUIRED: (HIGH CUBE PARKING STANDARDS)	
20,000 OFFICE PARKING (LESS THAN 10%)	00 STALLS
WAREHOUSE	
0-20,000 SF (1/1000 SF)	20 STALLS
20K + 40K (1/2000 SF)	10 STALLS
ABOVE 40K (1/5000 SF)	182 STALLS
TOTAL	212 STALLS
AUTO PARKING PROVIDED	
ACCESSIBLE STALLS	19 STALLS
STANDARD STALLS	267 STALLS
EV PARKING STALLS (CHARGERS)	5 STALLS
EV PARKING STALLS (INFRASTRUCTURE)	57 STALLS
TOTAL PROVIDED	348 STALLS
REQUIRED BICYCLE PARKING (5% OF REQUIRED AUTO PARKING)	10 BIKE LOCATIONS
PROVIDED BICYCLE PARKING	10 BIKE LOCATIONS
DOCK DOORS PROVIDED	124 DOORS
GRADE DOORS PROVIDED	4 DOOR
TRAILER PARKING 1/5,000 SF: (172 REQUIRED)	312 TRAILERS
LANDSCAPE AREA PROVIDED ON DEVELOPED SITE	236,011 SF / 13.00 %

The MARB/IPA ALUCP provides methods for determining concentrations of people using either the number of parking spaces provided or the California Building Code. Table 5 provides the occupancy levels for the Industrial Building of this Project.

Table 5 – Industrial Project Occupancy

Industrial Building Occupancy

Industrial Building (Zone C1)	Land Use	Building Size (sqft)	Site Area (gross acreage)[2]	Occupancy Rate (sqft/occupant)	Maximum on Site Permitted (people)	Maximum on Site (people) with High-Cube Adjustment	ALUCP Average Intensity (people/acre)	Occupancy (average people/acre)
1	High-Cube Warehouse Ground Level	840,224		500		588		**13.23**
	High-Cube Warehouse Ground Floor - Office	10,000		100		50		**1.12**
1	High-Cube Warehouse Mezzanine	90,000		500		63		**1.42**
1	High-Cube Warehouse Mezzanine - Office	10,000		100		50		**1.12**
	Industrial TOTAL	***950,224***	***44.46***		***4,446***	***751***	***100***	**16.90**

1 - Occupancy rates, adjustments, and intensity standards as per the MARB/IPA ALUCP and County of Riverside ALUC. High-cube warehouses and distribution centers greater than 200,000 square feet shall be evaluated on the basis of 35% of the usage intensity. Office space in these industrial buildings shall be evaluated on the basis of 50% of the usage intensity from the CBC.

2 - Includes half-widths of the roads

The retail space consists of three drive-thru restaurant buildings; two multi-tenant buildings, one of which would include a drive-thru; one coffee shop with drive-thru; one convenience store with a gas station; and one drive-thru express carwash facility.

Figure 7 – Retail Site Plan

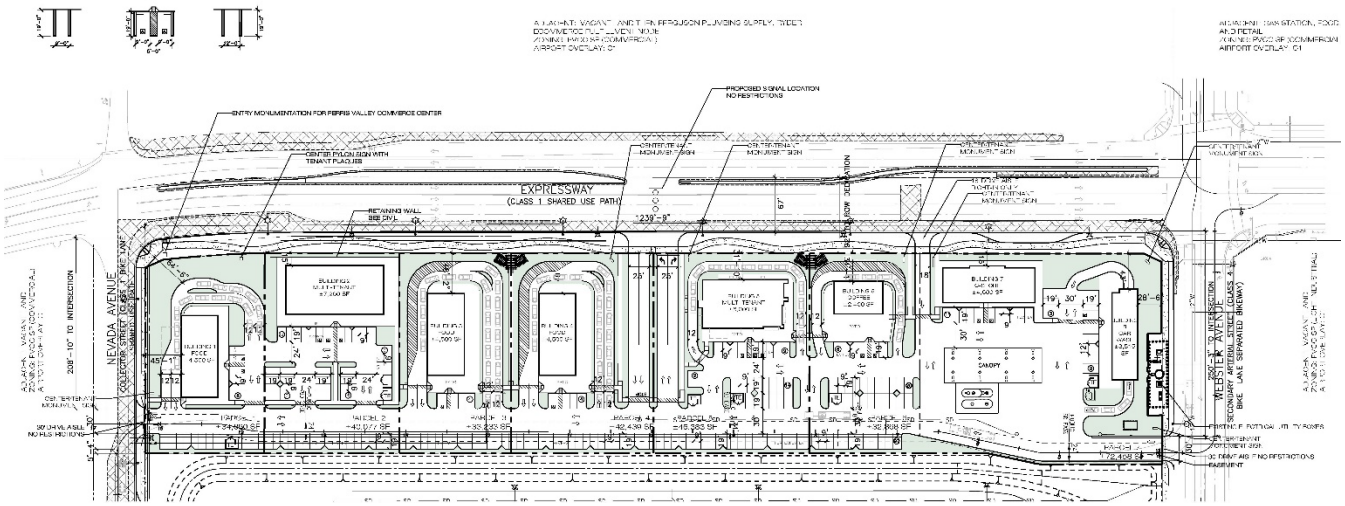


Figure 8 – Retail Project Data

BUILDING INFORMATION:

- BUILDING 1: FOOD, ±4,500 SQ FT
- BUILDING 2: MULTI-TENANT, ±7,200 SQ FT
- BUILDING 3: FOOD, ±4,500 SQ FT
- BUILDING 4: FOOD, ±4,500 SQ FT
- BUILDING 5: MULTI-TENANT, ±6,000 SQ FT
- BUILDING 6: COFFEE, ±2,400 SQ FT
- BUILDING 7: C-STORE, ±4,600 SQ FT
- BUILDING 8: CAR WASH, ±3,515 SQ FT

TOTAL SQUARE FOOTAGE: ±37,215 SQ FT

- MAXIMUM LOT COVERAGE BY STRUCTURE ALLOWED: 50%
- RETAIL LOT COVERAGE PROVIDED: 11.28%

PARKING INFORMATION:

- COMMUNITY SHOPPING CENTER: 1/ 200 SF
- PARKING DIMENSIONS: 9' x 19' (VACUUM STALLS 12' x 19')
- TOTAL STALLS REQUIRED: 187 STALLS
- TOTAL STALLS PROVIDED:
  - ACCESSIBLE STALLS: 15 STALLS
  - STANDARD STALLS: 165 STALLS
  - VACUUM STALLS: 11 STALLS
  - EV STALLS: 22 STALLS
  - EVCS STALLS: 2 STALLS

  TOTAL PROVIDED: 215 STALLS
  PARKING RATIO: APPROX. 5.8/ 1000SF

The typical floor plan for a fast-food restaurant (Figure 9) is approximately 3,500 square feet. The dining room area is approximately 550 square feet (or 16 percent of the floor space), and the kitchen is approximately 350 square feet (or ten percent of the floor space). The remainder of the space is occupied by bathrooms, coolers, freezers, stock areas, and storage. The typical floor plan for a coffee restaurant (Figure 10) is approximately 1,670 square feet. The dining room area is approximately 250 square feet (or 15 percent of the floor space), and the beverage prep area ("kitchen") is approximately 430 square feet (or 26 percent of the floor space). The remainder of the space is occupied by bathrooms, retail, coolers, stock areas, and storage.

Figure 9 – Typical Fast-Food Floorplan

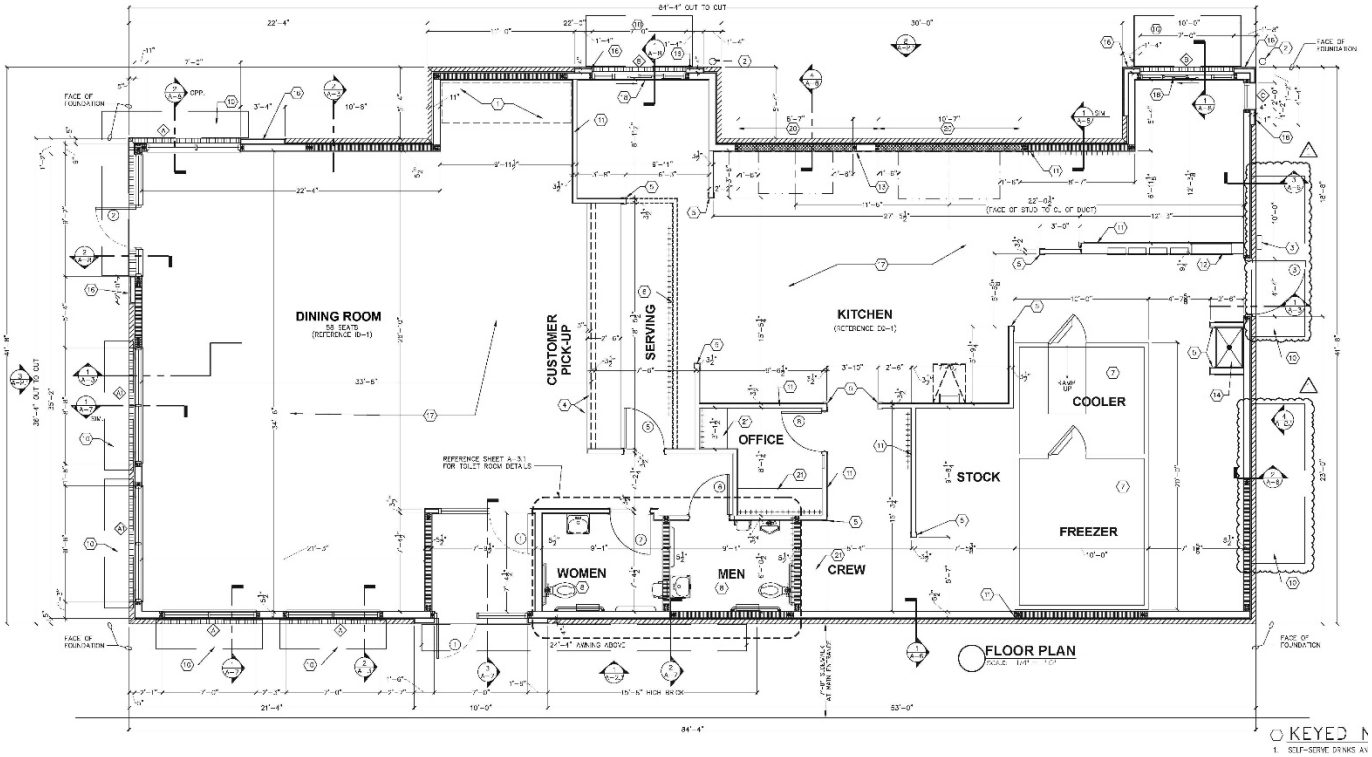
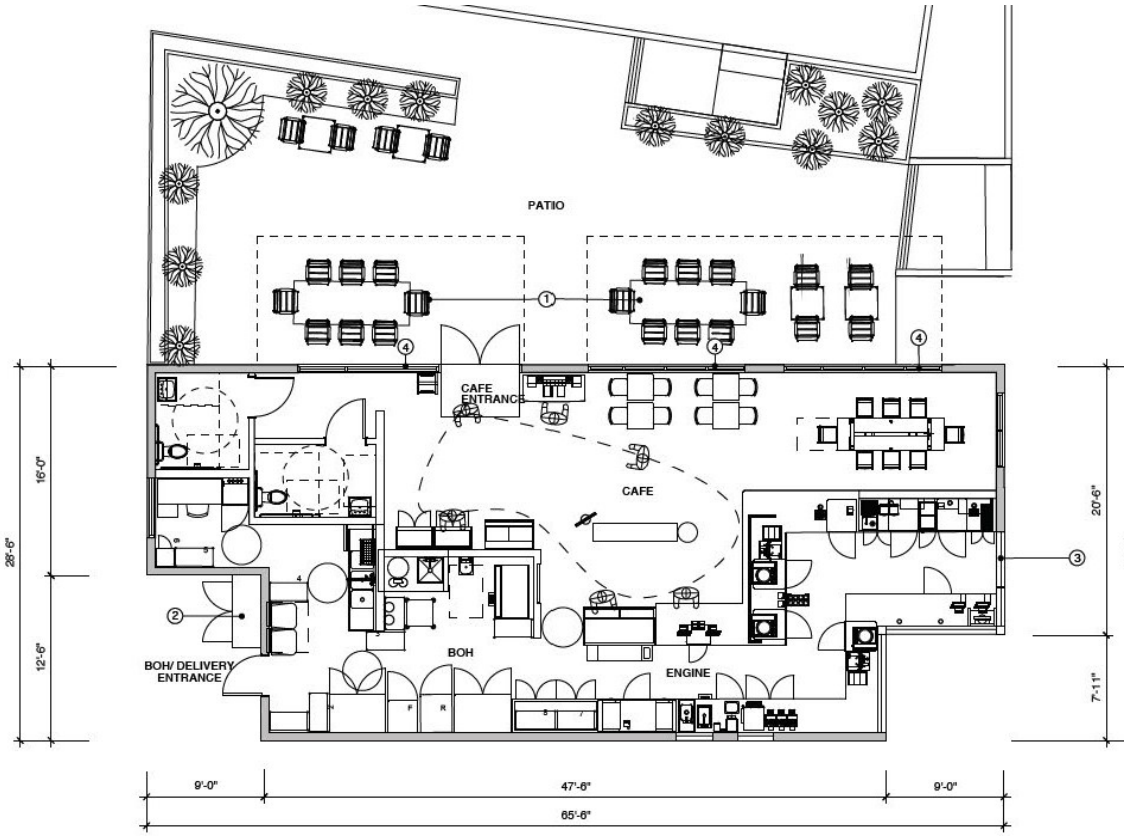


Figure 10 – Typical Coffee Floorplan



The MARB/IPA ALUCP provides methods for determining concentrations of people using either the number of parking spaces provided or the California Building Code. The Riverside ALUC also provided the following guidance for determining concentration of people:

- Restaurant dine in area is 1 person / 15 sq.ft.
- Restaurant kitchen area is 1 person / 200 sq.ft.
- Drive thru is 1.5 people per every stacking space
- Outdoor dining is 1 per 1 seat of outdoor dining space
- Gas station convenience store is 1 person / 115 sq.ft.
- Every fueling space is 1.5 persons
- Car wash is 1.5 person per stacking space; or if with retail, office, and tunnel, 1 person / 115 sq.ft.

Table 6 and 7 provide the occupancy levels for the Retail Buildings of this Project.

Table 6 – Retail Building Detail Occupancy

Retail Building Detail Occupancy									
Retail Buildings and Parcels (Zone C1)	Land Use	Building Size (sqft) or Spaces	Parcel Area (gross acreage)	Occupancy Rate (sqft/occupant or space per occupant)	ALUCP Single Acre Intensity (people/acre)	Maximum on Site Permitted (people)	Maximum on Site (people)	ALUCP Average Intensity (people/acre)	Occupancy (average people/acre)
1	Drive-thru Restaurant (dine-in	720		15			48		
	Kitchen Area	450		200			2		
	Stacking Spaces	16		1.5			24		
	Unoccupied Accessory Uses [3]	3,330							
	**See note 4		**1.50**		**250**	**150**	**74**	**100**	**49.50**
2	Multi-Tenant [4]	7,200	1.40	115	250	**140**	**63**	100	**44.72**
3	Drive-thru Restaurant (dine-in	720		15			48		
	Kitchen Area	450		200			2		
	Stacking Spaces	24		1.5			36		
	Seats for Outdoor Dining	20		1			20		
	Unoccupied Accessory Uses [3]	3,330							
	**See note 4		1.16		250	**116**	**106**	100	**91.59**
4	Drive-thru Restaurant (dine-in	720		15			48		
	Kitchen Area	450		200			2		
	Stacking Spaces	24		1.5			36		
	Seats for Outdoor Dining	20		1			20		
	Unoccupied Accessory Uses [3]	3,330							
	**See note 4		1.49		250	**149**	**106**	100	**71.31**
5	Multi-Tenant	3,000		115			26		
	Drive-thru Restaurant (dine-in	480		15			32		
	Kitchen Area	300		200			2		
	Stacking Spaces	13		1.5			20		
	Seats for Outdoor Dining	20		1			20		
	Unoccupied Accessory Uses [3]	2,220							
	**See note 4		1.62		250	**162**	**99**	100	**61.16**
6	Drive-thru Coffee (dine-in)	360		15			24		
	Kitchen Area	624		200			3		
	Stacking Spaces	7		1.5			11		
	Seats for Outdoor Dining	20		1			20		
	Unoccupied Accessory Uses [3]	1,416							
	**See note 4		1.15		250	**115**	**58**	100	**50.10**
7 [2]	Convenience Store	4,600		115			40		
	Gas station pumps	16		1.5			24		
							64		
8	Car Wash	3,515		115			31		
Parcel TOTAL	**See note 4		3.08		250	**308**	95	100	**30.70**

1 - Occupancy rates, adjustments, and intensity standards as per the MARB/IPA ALUCP and County of Riverside ALUC
2 - Building 7 and 8 are on one parcel (Parcel 7 as shown on Figure 7)
3 - Bathrooms, storage, walk-in coolers, etc.
4 - Includes ROWs and stilling basin (concrete bypass channel) areas in gross acreage

Table 7 – Retail Building Total Occupancy

	Building Size (sqft)	Site Area (gross acreage)	ALUCP Single Acre Intensity (people/acre)	Maximum on Site Permitted (people)	Maximum on Site (people)	ALUCP Average Intensity (people/acre)	Occupancy (average people/acre)
RETAIL TOTAL	***37,215***	***11.40***	***250***	***1,140***	***601***	***100***	**52.69**

1 - Occupancy rates, adjustments, and intensity standards as per the MARB/IPA ALUCP and County of Riverside ALUC

For both the industrial portion of the Project and retail portion of the Project, the total site intensity falls within the allowable parameters.

As shown in Table 6, Building #3 is the most intense acre with 106 people on 1.16 gross acres compared with an allowable 116 people on site and a maximum single acre intensity of 250 people as per the ALUCP. The maximum single-acre intensity and average people per acre are also within the allowable parameters of the ALUCP.

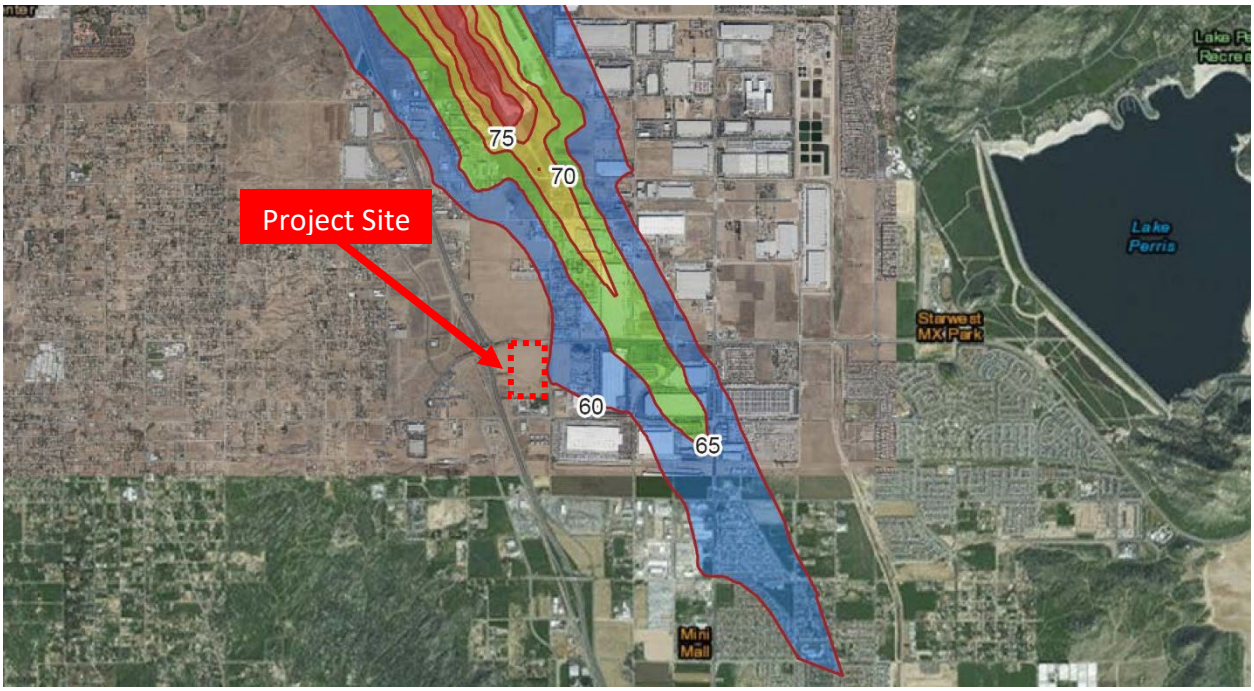
E. Aircraft Noise Impacts

Federal and state regulations set 65 decibels (dB) as the normally acceptable limit for aircraft noise, especially in urban areas. The AICUZ updated in 2018 provides the most recent noise contours for MARP/IPA. As shown in Figure 11, the Property is outside the 60 dB community noise equivalent level (CNEL) contour. This indicates that there are no anticipated significant noise impacts to the Property, especially since the Property will be used for retail and industrial purposes.

Current and projected nighttime activity by large aircraft at MARB/IPA may warrant consideration for a greater degree of sound attenuation for the interiors of buildings because single-event noise levels from aircraft operations can be particularly intrusive at night. The maximum aircraft-related, interior noise level considered acceptable for office uses is CNEL 45 dB. An acoustical study is required for any development proposed to be situated where the aviation-related noise exposure is more than 20 dB above the interior standard. This Project does not require an acoustical study.

The noise contours presented in the updated 2018 AICUZ (Figure 11) are based on total annual aircraft operations of 21,000 as noted in the noise contour assumptions of the 2018 AICUZ.

Figure 11 – 2018 MARB/IP AICUZ Noise Contours

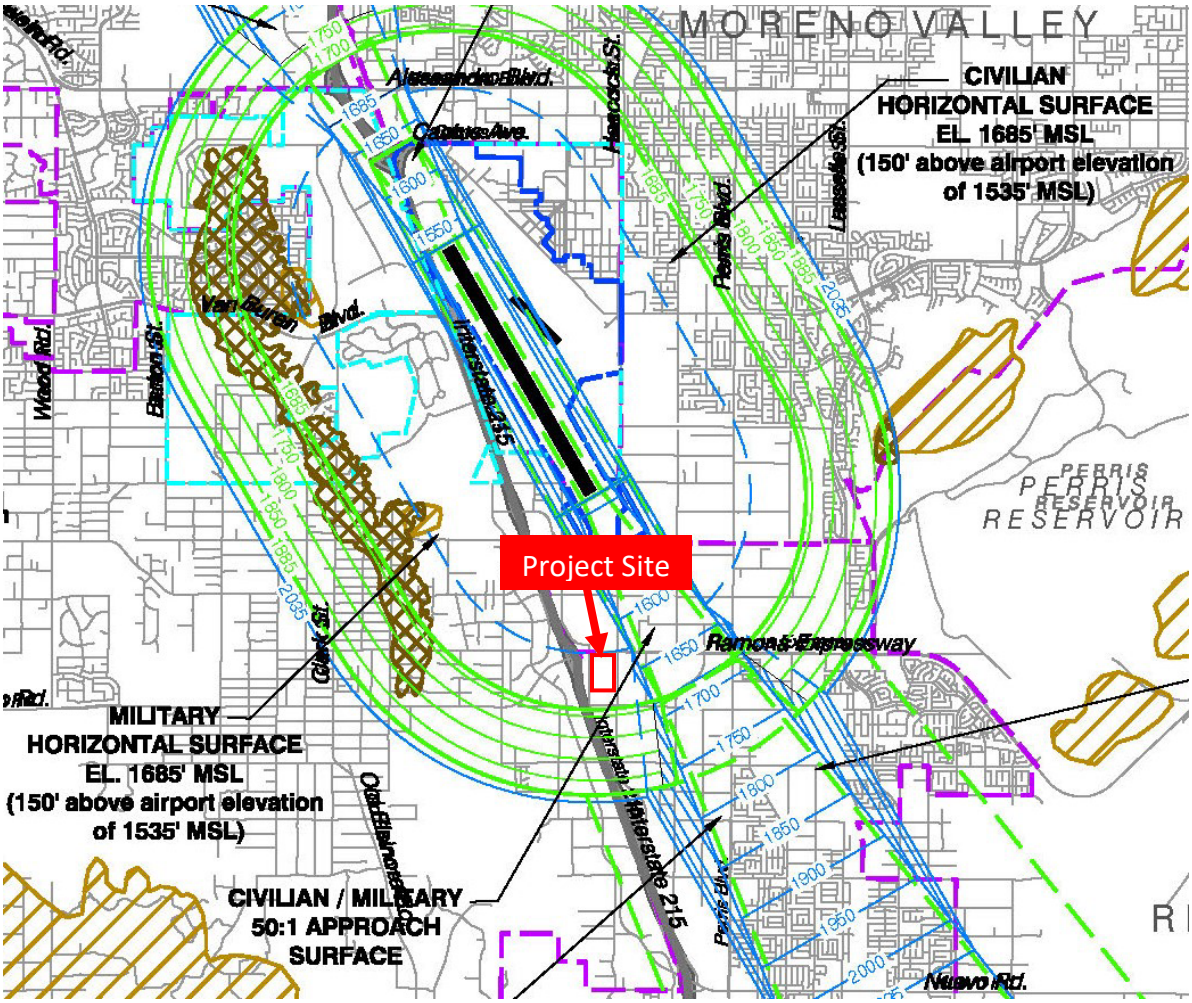


F. Airspace Protection/Height Zoning/Hazards to Air Navigation

The FAA is responsible for protecting and preserving airspace from hazards to air navigation. Title 14 of the United States Code of Federal Regulations Part 77 defines the regulations and process for providing these protections. 14 CFR § 77.19 establishes civil airport imaginary surfaces around each runway to ensure that proposed temporary and permanent structures and activities near airports will be studied by the FAA for their effects on the safe and efficient use of navigable airspace. Specifically, the Project site is below the Horizontal Surface, as shown in Figure 12.

The building height above finish floor elevation for the industrial warehouse is 48 feet; for the retail buildings it is a maximum of 26 feet. The ALUCP states that Airspace review is required for objects greater than 70 feet tall, however, that is considered general guidance. An Aeronautical Study by the FAA was initiated for the buildings associated with the Property. The study assessed the building locations, planned heights and whether there is a need for any associated lighting or markings to ensure that the buildings are conspicuous at night and during low visibility weather conditions. The FAA's Aeronautical Study made a "Determination of No Hazard to Air Navigation" for the proposed buildings on the Property (Appendix A).

Figure 12 – ALUCP Part 77 Surfaces



The Project proposes a potential solar PV installation on a portion of the roof of the industrial building. The potential solar PV installation would be located on the southerly portion of the industrial building roof in a total site area on the roof of the building of approximately 550,000 square feet. A Solar Glare Analysis was performed for the Project (Appendix B). The findings of the Solar Glare Analysis are that the Project **PASSES** the FAA's recommended solar glare tests and **PASSES** these same tests for four critical flight paths required by the March Air Reserve Base.

A deed notice and disclosure are required within Zone C1 as a condition of residential development, which does not apply to this Project. Hazards to flight are prohibited in Zone C1; this includes physical, visual, and electronic forms of interference to aircraft operations, land uses that attract birds, and certain farming activities. In Zone C1, aboveground storage of more than 6,000 gallons of hazardous or flammable materials per tank is discouraged.

G. Aircraft Overflight

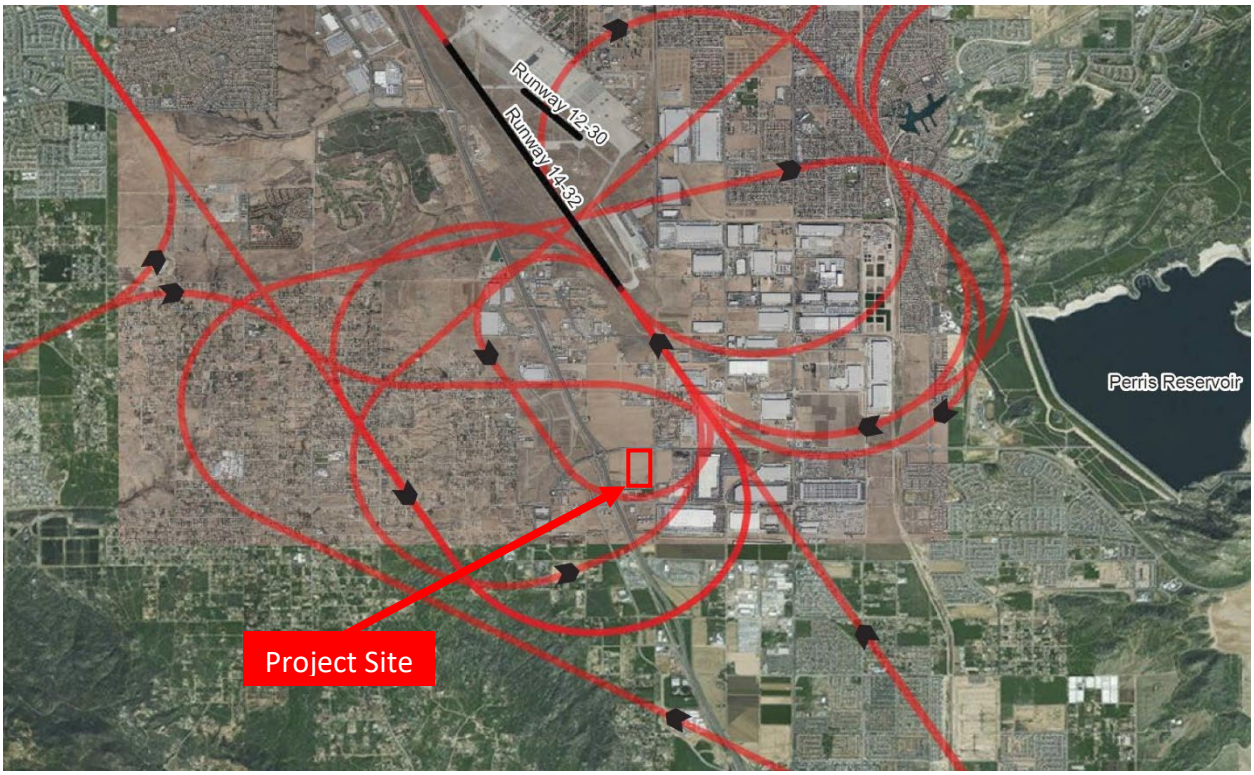
March Air Reserve Base supports both military and civilian aircraft operations. Through the Base Realignment and Closure Commission (BRAC) the Airport's role evolved from supporting various war efforts to supporting joint use military missions along with air cargo and general aviation.

The Airport's primary runway (Runway 14-32), which is oriented north-northwest/south-southeast, is 13,300 feet in length, making it one of the longest in the state of California. The length, width, and pavement strength of Runway 14-32 enables the accommodation of nearly any type of military or civilian aircraft. The length of Runway 12-30 (the secondary runway) was reduced to just over 3,000 feet and its use is restricted to light military aircraft (helicopters and Aero Club airplanes). Civilian use of Runway 12-30 is not permitted.

MARB/IPA is bordered by the City of Riverside to the northwest, the City of Moreno Valley to the northeast, the City of Perris to the south, and the County of Riverside to the west. The land uses in the vicinity of March ARB/IPA are generally compatible with base operations.

Compared to the years when March operated as an Air Force Base, aircraft activity levels are substantially lower, however, all property within the airport influence area (AIA) is subject to routine aircraft overflight. As shown in Figure 13, the Project site is located within the closed-circuit traffic pattern envelope, which means large aircraft overflights can be expected. Significant noise issues to the Property are not expected as per the noise contours presented in Figure 11 and based on the use of the Property for retail and industrial purposes.

Figure 13 – MARB/IPA 2018 AICUZ Overflight



H. Findings

The following airport land use compatibility findings for the Project are provided for consideration during the environmental review and discretionary permitting processes.

Findings of Fact

- The Ramona Gateway Project proposes the development of a mixed-use retail and industrial development.
- The Project site is within the boundaries of the PVCCSP.
- The Project site has a PVCCSP land use designation of Commercial and Business Professional Office. A Specific Plan Amendment is required for the proposed industrial use.
- The PVCCSP and the Project site are within the City's AOZ. The AOZ ensures that the policies in the MARB/IPA ALUCP are adhered to when new development projects are proposed, and incompatible land uses are prevented.
- The Project site is within ALUCP Compatibility Zone C1. Zone C1 is the Primary Approach/Departure Zone. Accident potential risks are moderate in Zone C1 in that aircraft fly at low altitudes over or near the zone. A mixed-use retail and industrial development is generally compatible with the allowable uses in Zone C1.
- The total site intensity falls within the allowable parameters of the ALUCP; the maximum single-acre intensity and average people per acre are also within the allowable parameters of the ALUCP.

- The Project is outside of the 2018 AICUZ 60 dB CNEL noise contour. This indicates that there are no anticipated significant aircraft noise impacts to the Property, especially since the Property will be used for retail and industrial purposes.
- The proposed buildings are less than 70 feet in height and outside of the 14 CFR Part 77 surface areas for March ARB. The FAA's Aeronautical Study made a "Determination of No Hazard to Air Navigation" for the proposed buildings on the Property (Appendix A).
- The Project proposes a potential solar PV installation on a portion of the roof of the industrial building. A Solar Glare Analysis was performed for the Project (Appendix B). The findings of the Solar Glare Analysis are that the Project **PASSES** the FAA's recommended solar glare tests and **PASSES** these same tests for four critical flight paths required by the March Air Reserve Base.
- The Project site is located under the traffic pattern area for March ARB and would therefore experience regular overflight by large aircraft at low altitudes maneuvering for landing and turning after takeoff.
- A deed notice and disclosure are not required for the proposed commercial and industrial land uses of the Project within ALUCP Zone C1.

Client PERRIS LANDCO LLC
Project Address Ramona Ave/Webster, Perris, CA
Airport Influence Area March Air Reserve Base
Distance From Runway 7,550
Structure Data for FAA Form 7460-1

Structure Name	(a) Finish Floor Elevation (AMSL)	(b) Building Height above Finish Floor Elevation (Feet)	(c) Top of Building Elevation (AMSL) (a + b = c)	**(d) Existing Site Elevation (AMSL) (Survey)**	**(e) Structure Height (Feet) (c - d = e) (rounded up)**	FAA Case Number
RGCC I-1	1489.10	48	1,537.10	**1491**	**47.00**	**2022-AWP-12523-OE**
RGCC I-2	1489.10	48	1,537.10	**1483**	**55.00**	**2022-AWP-12524-OE**
RGCC I-3	1489.10	48	1,537.10	**1486**	**52.00**	**2022-AWP-12525-OE**
RGCC I-4	1489.10	48	1,537.10	**1491**	**47.00**	**2022-AWP-12526-OE**

Notes:

(AMSL)	Above mean sea level
Structure Name	Added for FAA 7460-1 Case Identification
(a) Finish Floor Elevation (AMSL)	From building floor plan
(b) Building Height above Finish Floor Elevation (Feet)	From building floor plan
(c) Top of Building Elevation (AMSL)	From building elevations
(d) Existing Site Elevation (AMSL)	**For FAA 7460-1 Application - From grading plan**
(e) Structure Height (Feet)	**For FAA 7460-1 Application - calculated**

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-12523-OE

Issued Date: 08/03/2022

Jon Yolles
PERRIS LANDCO LLC
201 Spear Street
#1100
San Francisco, CA 94105

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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:	Building RGCC I-1
Location:	Perris, CA
Latitude:	33-50-35.96N NAD 83
Longitude:	117-14-50.27W
Heights:	1491 feet site elevation (SE) 47 feet above ground level (AGL) 1538 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

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.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 02/03/2024 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.

(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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.

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, effective 21 Nov 2007, 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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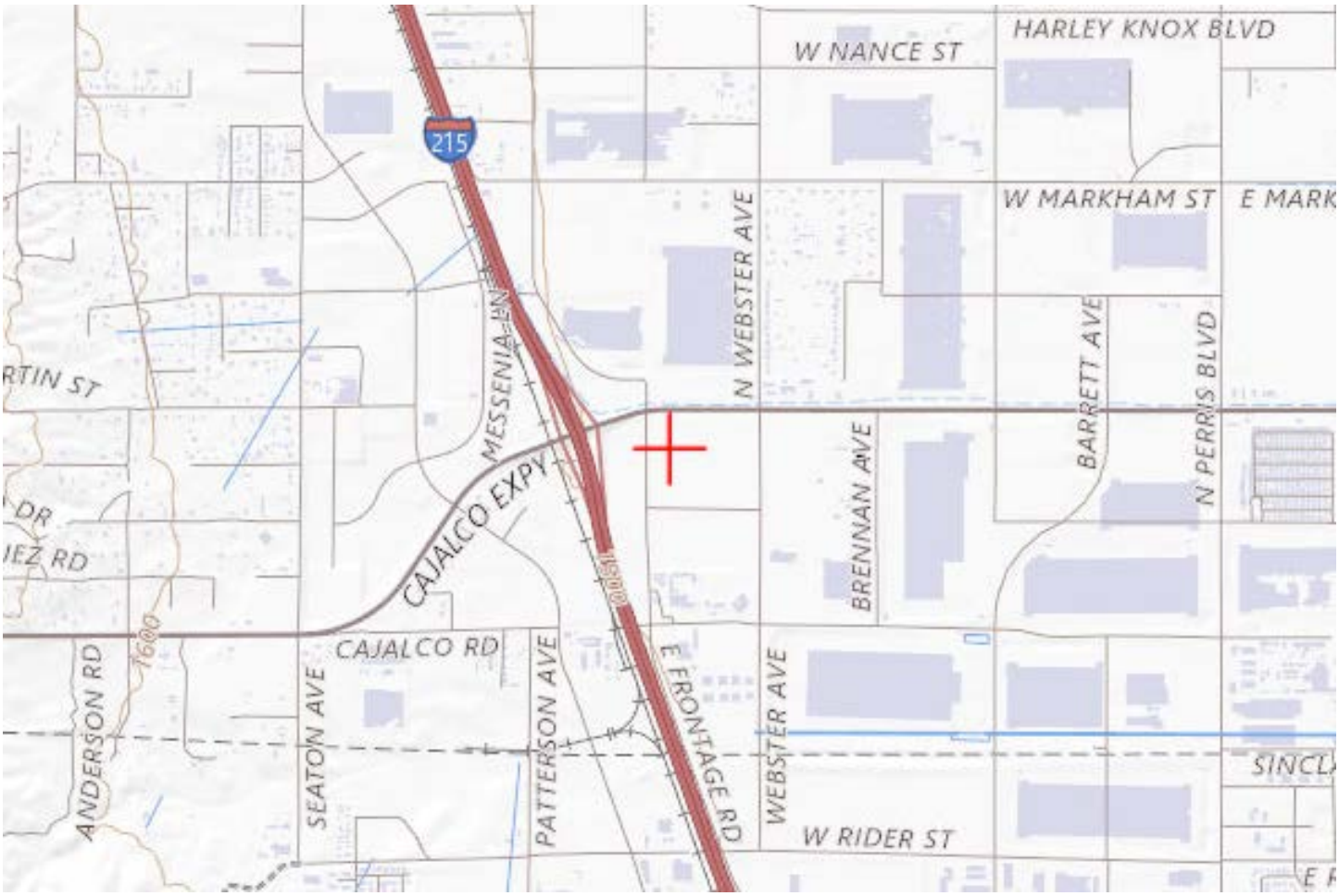
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, 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 2022-AWP-12523-OE.

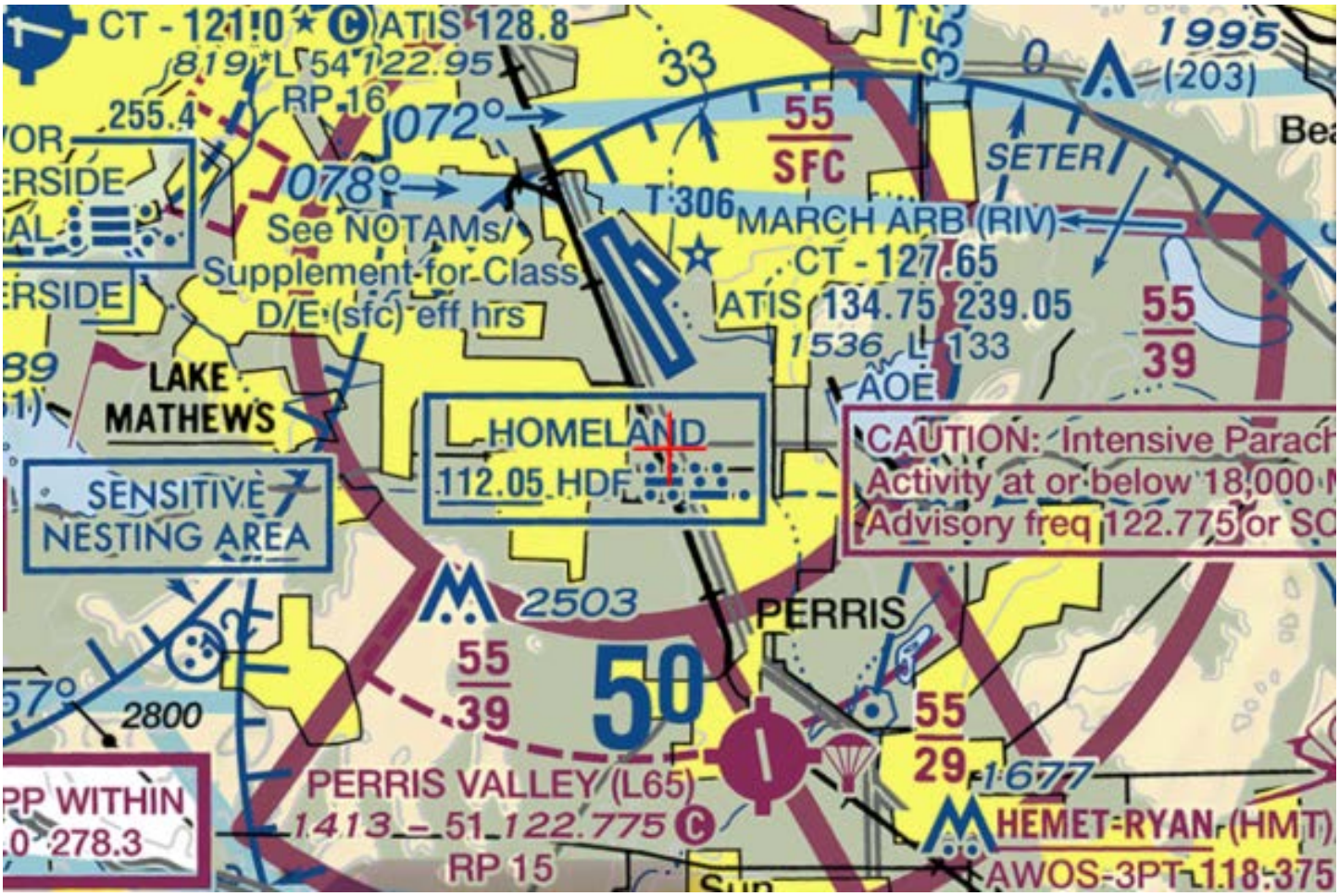
Signature Control No: 537974892-546524521 (DNE)
Vivian Vilaro
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-12523-OE



Sectional Map for ASN 2022-AWP-12523-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-12524-OE

Issued Date: 08/03/2022

Jon Yolles
PERRIS LANDCO LLC
201 Spear Street
#1100
San Francisco, CA 94105

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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:	Building RGCC I-2
Location:	Perris, CA
Latitude:	33-50-35.96N NAD 83
Longitude:	117-14-40.93W
Heights:	1483 feet site elevation (SE) 55 feet above ground level (AGL) 1538 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

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.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 02/03/2024 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
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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, effective 21 Nov 2007, 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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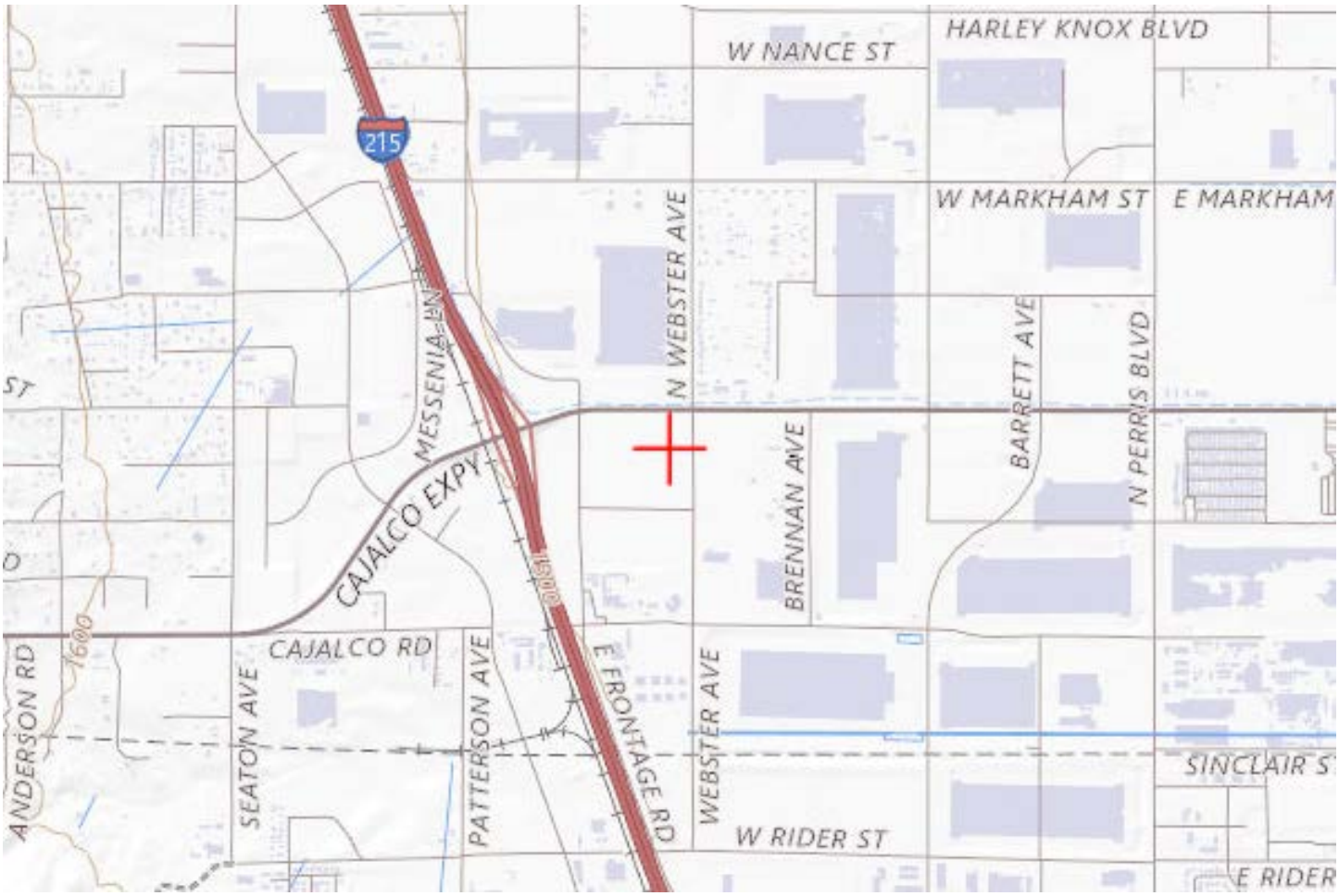
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, 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 2022-AWP-12524-OE.

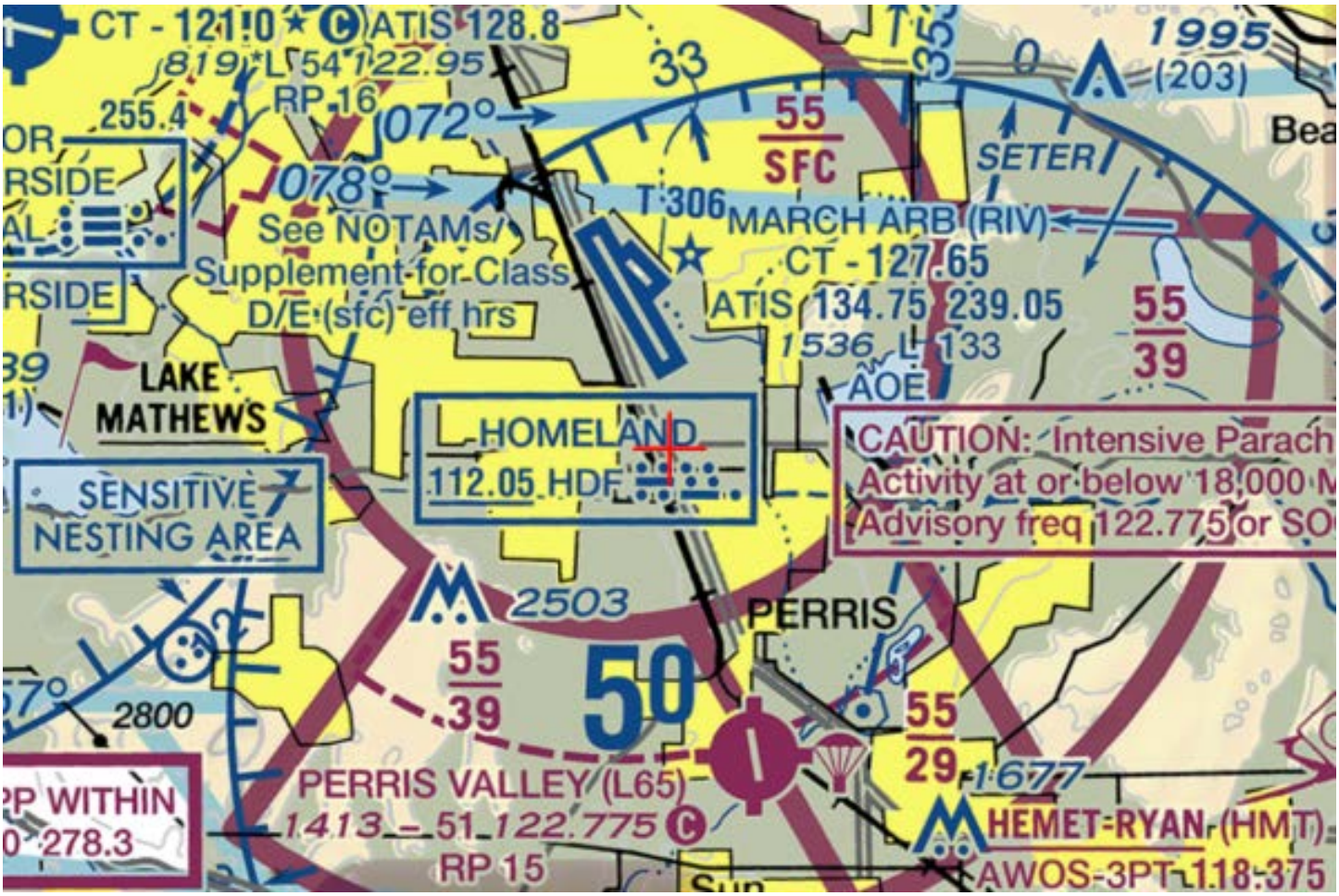
Signature Control No: 537974893-546524523 (DNE)
Vivian Vilaro
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-12524-OE



Sectional Map for ASN 2022-AWP-12524-OE



Mail Processing Center
Federal Aviation Administration
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Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-12525-OE

Issued Date: 08/03/2022

Jon Yolles
PERRIS LANDCO LLC
201 Spear Street
#1100
San Francisco, CA 94105

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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:	Building RGCC I-3
Location:	Perris, CA
Latitude:	33-50-24.07N NAD 83
Longitude:	117-14-40.93W
Heights:	1486 feet site elevation (SE)
	52 feet above ground level (AGL)
	1538 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

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__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

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The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 02/03/2024 unless:

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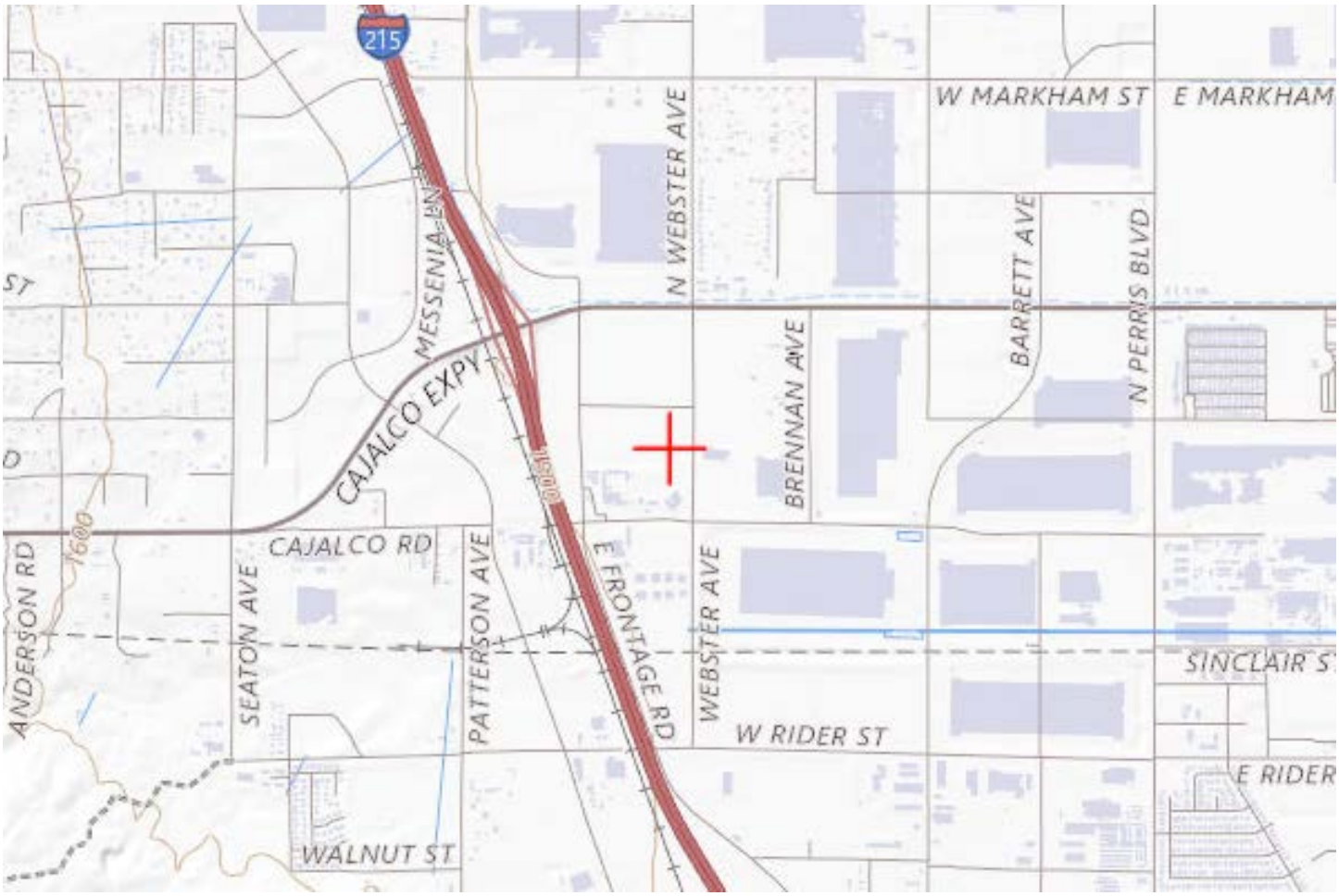
If we can be of further assistance, please contact our office at (847) 294-7575, or vivian.vilaro@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-12525-OE.

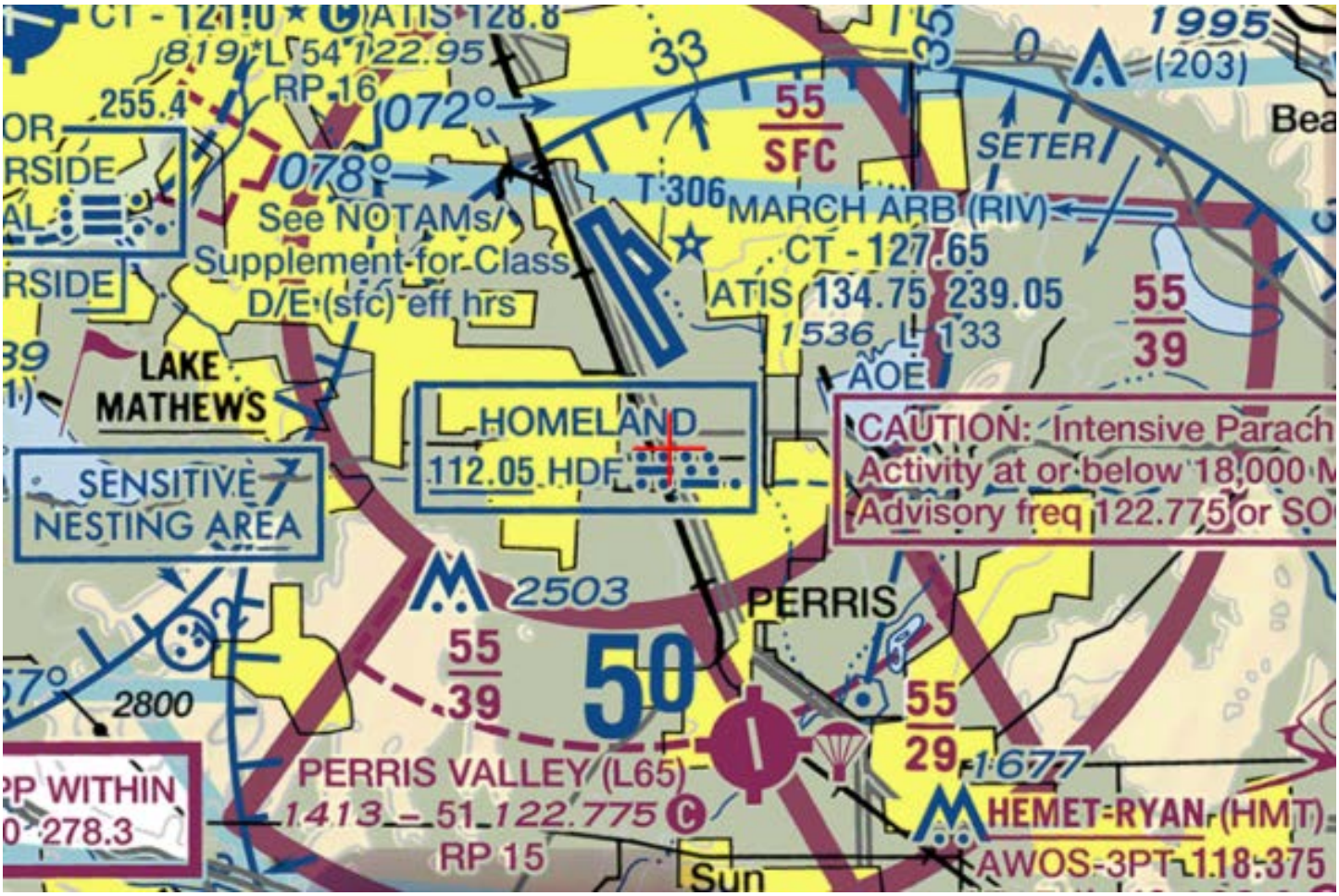
Signature Control No: 537974894-546524522 (DNE)
Vivian Vilaro
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-12525-OE



Sectional Map for ASN 2022-AWP-12525-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-12526-OE

Issued Date: 08/03/2022

Jon Yolles
PERRIS LANDCO LLC
201 Spear Street
#1100
San Francisco, CA 94105

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

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:	Building RGCC I-4
Location:	Perris, CA
Latitude:	33-50-24.07N NAD 83
Longitude:	117-14-50.27W
Heights:	1491 feet site elevation (SE) 47 feet above ground level (AGL) 1538 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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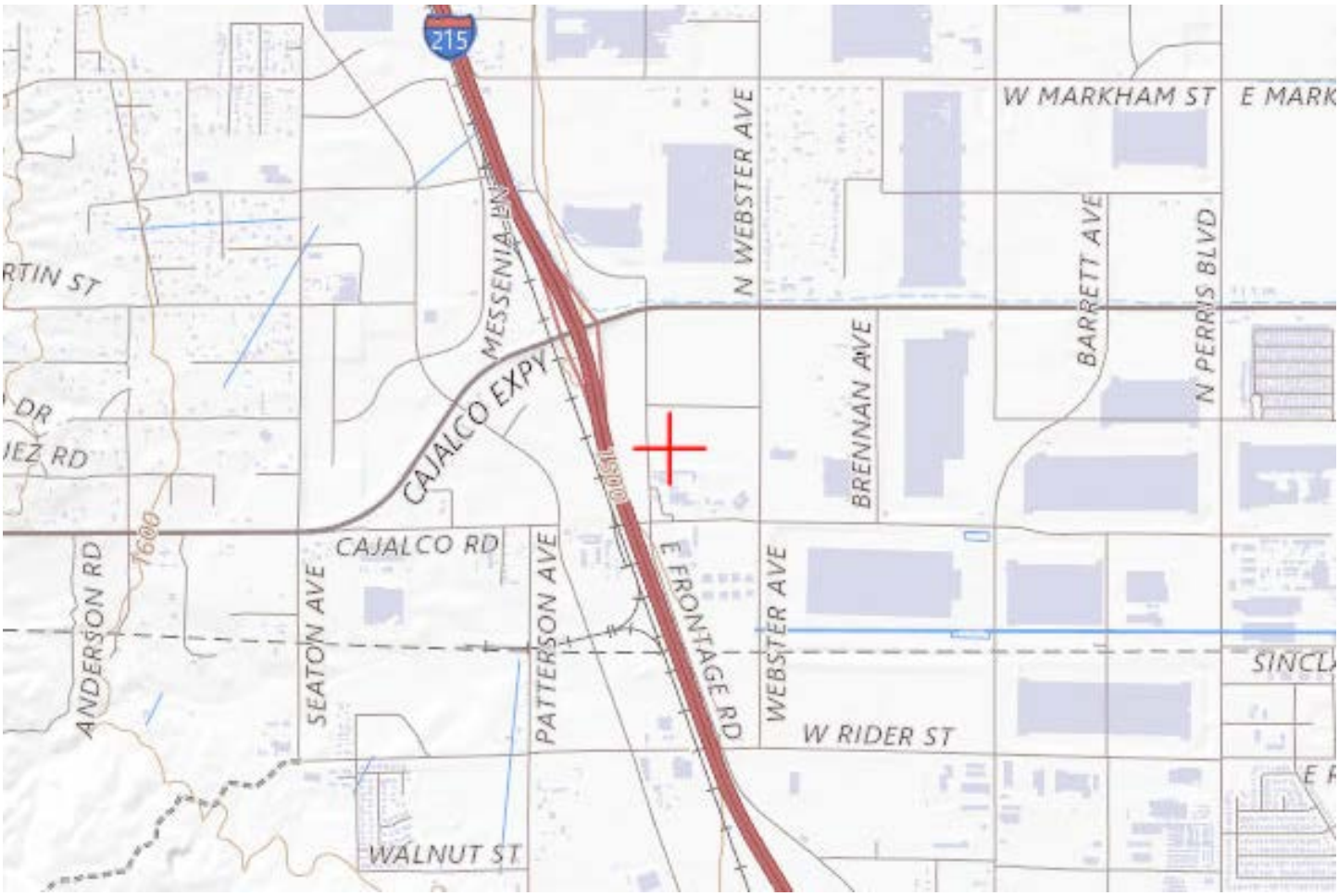
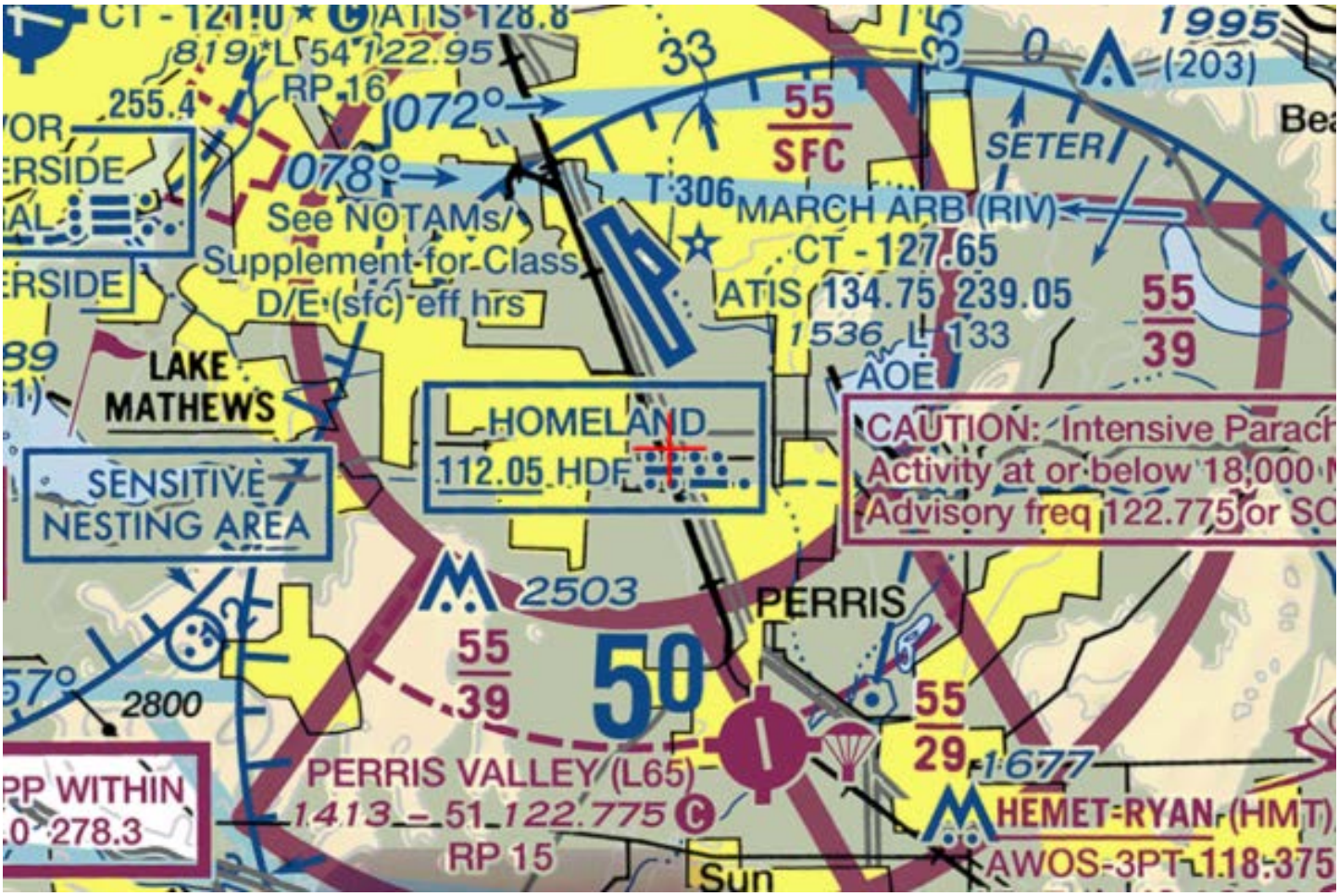
Signature Control No: 537974895-546524524 (DNE)
Vivian Vilaro
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-12526-OE

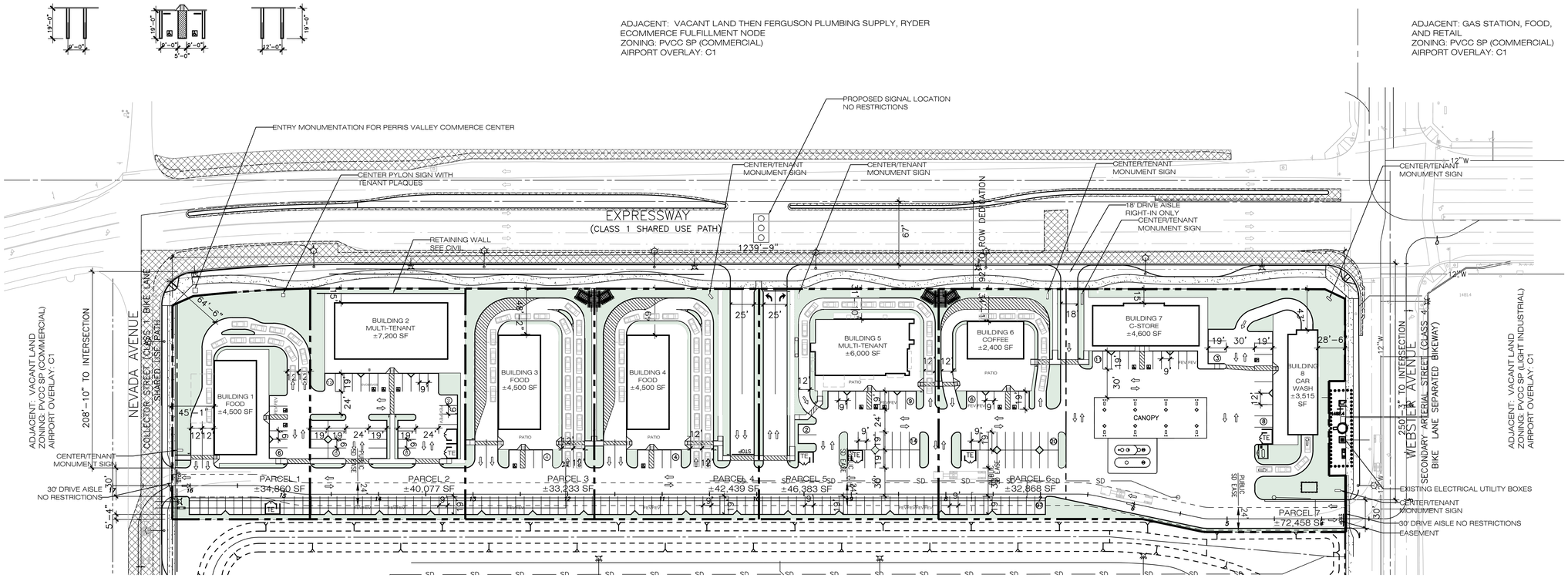


Sectional Map for ASN 2022-AWP-12526-OE



SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTER LINES
- ON-SITE CURB LINES
- ON-SITE PARKING
- FEV — FUTURE ELECTRICAL VEHICLE STALLS
- EVCS — ELECTRICAL VEHICLE CHARGING STATION



SITE INFORMATION:

APPLICANT/ PROPERTY OWNER:
PERRIS LANDCO, LLC
201 SPEAR STREET, SUITE 1100
SAN FRANCISCO, CA 94105
DANIEL SACHS
EMAIL: daniel.sachs@decaco.com

LEGAL DESCRIPTION:
THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
A PTN OF LOT 20 PERRY'S SUBDIVISION, BK 7/PG 25 OF MAPS, TOGETHER WITH A PTNS OF LOT 22 PERRY'S RE-SUBDIVISION, BK 7/PG 45 OF MAPS, ALL OF OFFICIAL RECORDS, COUNTY OF RIVERSIDE.

ZONING: PVCC SP (PERRIS VALLEY COMMERCE CENTER SPECIFIC PLAN: COMMERCIAL)
AIRPORT OVERLAY: C1

ASSESSOR'S PARCEL NO.: 317120021

PROJECT INFORMATION:
SITE INFORMATION:

- TOTAL GROSS SITE AREA: ±2,176,883 SF (49.97 AC)
- TOTAL NET SITE AREA: ±2,141,645 SF (49.17 AC)
- RETAIL GROSS SITE AREA: ±329,012 (7.55 AC)
- RETAIL NET SITE AREA: ±302,667 (6.95 AC)

LANDSCAPE INFORMATION:

- MINIMUM LANDSCAPE COVERAGE REQUIRED: 10%
- TOTAL LANDSCAPE COVERAGE PROVIDED: ±54,291 SQ FT (18% OF TOTAL SITE) (4.4% OF PARKING AREA)

BUILDING INFORMATION:

- BUILDING 1: FOOD, ±4,500 SQ FT
- BUILDING 2: MULTI-TENANT, ±7,200 SQ FT
- BUILDING 3: FOOD, ±4,500 SQ FT
- BUILDING 4: FOOD, ±4,500 SQ FT
- BUILDING 5: MULTI-TENANT, ±6,000 SQ FT
- BUILDING 6: COFFEE, ±2,400 SQ FT
- BUILDING 7: C-STORE, ±4,600 SQ FT
- BUILDING 8: CAR WASH, ±3,515 SQ FT

TOTAL SQUARE FOOTAGE: ±37,215 SQ FT

- MAXIMUM LOT COVERAGE BY STRUCTURE ALLOWED: 50%
- RETAIL LOT COVERAGE PROVIDED: 11.28%

PARKING INFORMATION:

- COMMUNITY SHOPPING CENTER: 1/ 200 SF
- PARKING DIMENSIONS: 9' x 19' (VACUUM STALLS 12' x 19')
- TOTAL STALLS REQUIRED: 187 STALLS
- TOTAL STALLS PROVIDED:
  - ACCESSIBLE STALLS: 15 STALLS
  - STANDARD STALLS: 165 STALLS
  - VACUUM STALLS: 11 STALLS
  - EV STALLS: 22 STALLS
  - EVCS STALLS: 2 STALLS

  TOTAL PROVIDED: 215 STALLS
  PARKING RATIO: APPROX. 5.8/ 1000SF

NOTE:

- LOADING ZONES, CAV/FEV/EVCS STALL INFORMATION TO BE CONFIRMED PRIOR TO PLAN CHECK
- SIGNAGE FOR PEDESTRAIN/BICYCLE CROSSING AND STOP SIGN

BICKEL GROUP ARCHITECTURE
BICKEL GROUP INCORPORATED
3600 BIRCH STREET, SUITE 120
NEWPORT BEACH, CA 92660
P: 949.757.0411 F: 949.757.0511
www.bickelgrp.com

RAMONA GATEWAY COMMERCE CENTER

PERRIS RAMONA EXPRESSWAY AND WEBSTER AVENUE

PERRIS, CALIFORNIA

1-RETAIL SITE PLAN

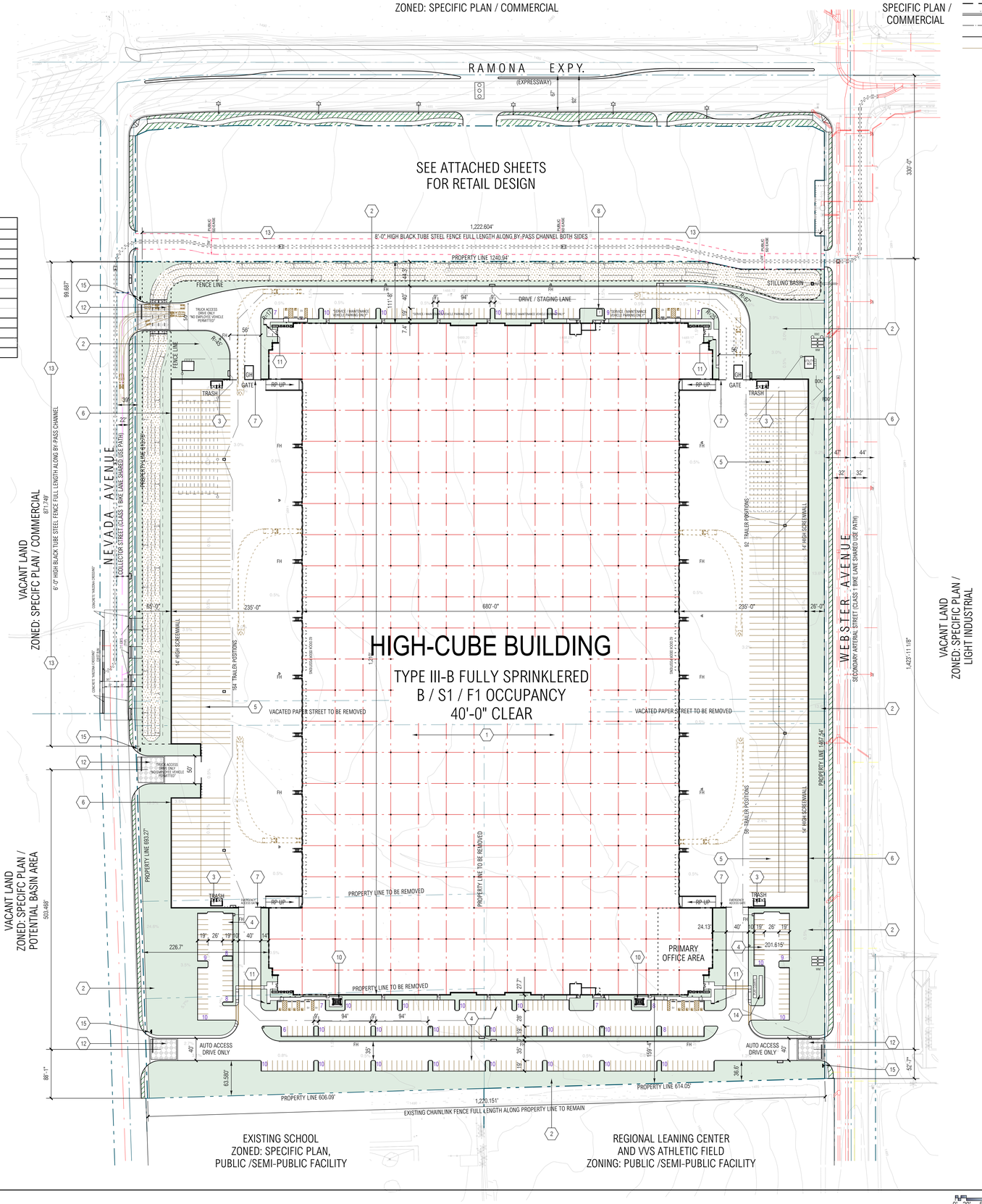
Scale: 1" = 50'-0"
June 20, 2022

P:\21\21320 - Perris Ramona Expressway and Webster Avenue\Design\Site\x21320 - Site Plan.DWG

The plans, ideas, arrangements and designs indicated or represented by this drawing are owned by, and are the property of BICKEL GROUP, and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from BICKEL GROUP © 2017.

VICINITY MAP

PVCCSP Development Standards for LI	Required	Provided
Minimum Lot Size	15,000 SF	1,839,103 SF
Lot Coverage by Structure	50 % Max	46.46%
Floor Area Ratio (FAR)	0.75 Max	51.67%
Structure Height	50' Max	50'-0"
Front Setback - Local/ Collector	20'	201'-6"
(10' + 5' per 10' of struct. Over 20')		
Side Setback	20'	111'-7"
(10' + 5' per 10' of struct. Over 20')		
Rear Setback	30'	159'-4"
Perimeter Landscape (PMC 19.02 and 19.44.060)	5'	6' Min.
Entries, Parking, Loading	Required	SW & SE corner
Site Landscape Coverage	12%	13.00%



SITE PLAN

SCALE: 1" = 80'-0"

SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO / TRUCK DRIVEWAYS
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE CURB LINES
- ON-SITE PARKING AND TRAILER STRIPPING

PROJECT DATA

INDUSTRIAL SITE AREA:	
NET SITE AREA:	1,838,978 SF / 42.22 AC
BUILDING AREA:	
FOOTPRINT	850,224 SF
FIRE PUMP HOUSE	00 SF
OFFICE MEZZANINE	10,000 SF
STORAGE MEZZANINE	90,000 SF
GUARD HOUSE	00 SF
TOTAL	950,224 SF
TOTAL INCLUDED PLANNED OFFICE AREA	20,000 SF
LOT COVERAGE: (50% MAX)	46.46 %
FAR COVERAGE:	51.67 %
AUTO PARKING REQUIRED: (HIGH CUBE PARKING STANDARDS)	
20,000 OFFICE PARKING (LESS THAN 10%)	00 STALLS
WAREHOUSE	
0-20,000 SF (1/1000 SF)	20 STALLS
20K - 40K (1/2000 SF)	10 STALLS
ABOVE 40K (1/5000 SF)	182 STALLS
TOTAL	212 STALLS
AUTO PARKING PROVIDED	
ACCESSIBLE STALLS	19 STALLS
STANDARD STALLS	267 STALLS
EV PARKING STALLS (CHARGERS)	5 STALLS
EV PARKING STALLS (INFRASTRUCTURE)	57 STALLS
TOTAL PROVIDED	348 STALLS
REQUIRED BICYCLE PARKING (5% OF REQUIRED AUTO PARKING)	10 BIKE LOCATIONS
PROVIDED BICYCLE PARKING	10 BIKE LOCATIONS
DOCK DOORS PROVIDED	124 DOORS
GRADE DOORS PROVIDED	4 DOOR
TRAILER PARKING 1/5,000 SF: (172 REQUIRED)	312 TRAILERS
LANDSCAPE AREA PROVIDED ON DEVELOPED SITE	236,011 SF / 13.00 %

ASSESSOR'S PARCEL NUMBERS

317-120-021, 317-130-048, 317-130-025, 317-130-017, 317-130-021

APPLICATION TYPE

DEVELOPMENT PLAN REVIEW 00-00-0000
CONDITIONAL USE PERMIT: 00-00-0000
SECIFIC PLAN AMENDMENT: 00-00-0000
TENTATIVE PARCEL MAP: 00-00-0000
ZONING: LIGHT INDUSTRIAL - PVCC SP - PERRIS VALLEY COMMERCE CENTER
PERMITTED LAND USE: WAREHOUSE, OFFICE AS PERMITTED

PROJECT DESCRIPTION

NEW INDUSTRIAL WAREHOUSE BUILDING WITH AUTO AND TRAILER PARKING AREAS.
PROVIDING FUTURE GUARD SHACK LOCATION ON BOTH TRUCK COURT ENTRIES.

LAND OWNER

PERRIS LANDCO, LLC
201 SPEAR STREET, SUITE 1100
SAN FRANCISCO, CA 94105
DANIEL SACHS

APPLICANT

PERRIS LANDCO, LLC
201 SPEAR STREET, SUITE 1100
SAN FRANCISO, CA 94105
DANIEL SACHS

PLAN PREPARER

RGA, OFFICE OF ARCHITECTURAL DESIGN, INC.
15231 ALTON PARKWAY, SUITE 100
IRVINE, CA 92618
CONTACT: MIKE GILL

UTILITIES & SERVICES

SEE CIVIL DRAWINGS

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
A PTN OF LOT 20 PERRY'S SUBDIVISION, BK 7/PG 25 OF MAPS, TOGETHER WITH LOT 1, BLK 9 VAL VERDE TRACT, BK 1/PG 6 OF MAPS, TOGETHER WITH A PTNS OF LOT 22 PERRY'S RE-SUBDIVISION, BK 7/PG 45 OF MAPS, ALL OF OFFICIAL RECORDS, COUNTY OF RIVERSIDE.

KEYNOTES (000)

1. PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE / MANUFACTURING FACILITY.

2. SHADED AREA: PROPOSED IRRIGATED LANDSCAPING PER GUIDELINES WITH MIN 6" CONCRETE CURBS AT ALL PERIMETERS.

3. PAINTED CONCRETE TRASH ENCLOSURE. SCREEN WALLS SHALL BE MIN. 6'-0" HIGH WITH CANOPY TOP. SEE SHEET A4-1P FOR ELEVATIONS AND SECTIONS

4. TYPICAL STANDARD PARKING STALL MIN. 9' X 19' - STRIPE PER CITY STANDARDS.

5. TRUCK TRAILER PARKING

6. NEW 14'-0" CONCRETE TILT-UP SCREEN WALLS AT TRUCK YARD. SEE PLAN FOR MINIMUM HEIGHTS AS MEASURED FROM INSIDE THE TRUCK YARD.

7. ROLLING 8'-0" HIGH WROUGHT IRON FENCE INTO THE TRUCK COURT.

8. TRANSFORMER PAD LOCATION.

9. ACCESSIBLE PRIMARY ENTRANCE TO THE BUILDING WITH BIKE RACKS.

10. CONCRETE COVERED LUNCH PATIO WITH LANDSCAPE FURNITURE, SEE SHEET A4-1P

11. CALGREEN REQUIRED BIKE RACKS, SEE TABULATIONS FOR NUMBER OF BIKE RACKS

12. DECORATIVE PAVING AT ENTRY DRIVEWAY.

13. NEW 8'-0" TUBE STEEL FENCE, PAINTED BLACK. PROVIDE 6'-0" HIGH FENCE AT AROUND DRAINAGE CHANNEL

14. EXTERIOR OUTDOOR RST AREA AND BOCCE COURT / PLAY COURT.

15. SIGNAGE FOR PEDESTRIAN CROSSING ALONG WITH A "STOP BAR" AND STOP SIGN

GENERAL NOTES

1. THE PROPOSED PROJECT SHALL COMPLY WITH THE PROVISIONS OF CITY OF PERRIS PLANNING SPECIFIC PLAN

2. A LANDSCAPING PLAN SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT FOR APPROVAL PRIOR TO ISSUANCE OF BUILDING PERMITS AND SHALL BE IMPLEMENTED PRIOR TO OCCUPANCY.

3. THE PROJECT DOES NOT PROPOSE ANY TENANT SIGNAGE AT THIS TIME.

4. THERE ARE NO PROTECTED PLANTS ON SITE.

5. ALL ROOF DRAINS AT STREET FRONTAGES SHALL BE IN THE INTERIOR OF THE BUILDING ENVELOPE.

6. ALL LANDSCAPE SHALL BE BOUND BY A 6" HIGH CONCRETE CURB.

7. A LIGHT PLAN SHALL BE SUBMITTED SHOWING CONFORMANCE WITH MINIMUM FOOTCANDLE LEVELS AND MARCH AIR BASE STANDARDS. FIXTURES SHALL BE SHIELDED HIGH PRESSURE SODIUM.

8. A SIGN PROGRAM SHALL BE DEVELOPED IN ACCORDANCE WITH MUNICIPAL CODE 19.75.190 FOR APPROVAL BY THE PLANNING DIVISION. THE SIGN PROGRAM SHALL BE INCLUDED AS PART OF THE CC&R'S.

9. FUTURE TENANT OFFICE BUILD-OUTS TO INCLUDE INDOOR EMPLOYEE AMENITY AREAS PER CITY GUIDELINES.

10. PROJECT WILL BE DESIGNED WITH LEED IN MIND, BUT WILL NOT REQUIRE CERTIFICATION.

SUBSTAINABILITY FEATURES

11. PROVIDE LIGHT COLORED ROOFING OVER THE OFFICE AREAS.

12. PROVIDE "TURN-OFF ENGINE" SIGNS WITHIN THE TRUCK COURT.

13. FORKLIFTS WITHIN THE BUILDING SHALL BE ELECTRIC OR COMPRESSED NATURAL GAS-POWERED.

RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

RAMONA GATEWAY COMMERCE CENTER

0000 WEBSTER AVENUE
CITY OF PERRIS, CA

deca

PERRIS LANDCO, LLC
OWNER PHONE: 1-312-576-4291
OWNER: DANIEL SACHS
EMAIL: daniel.sachs@decaco.com

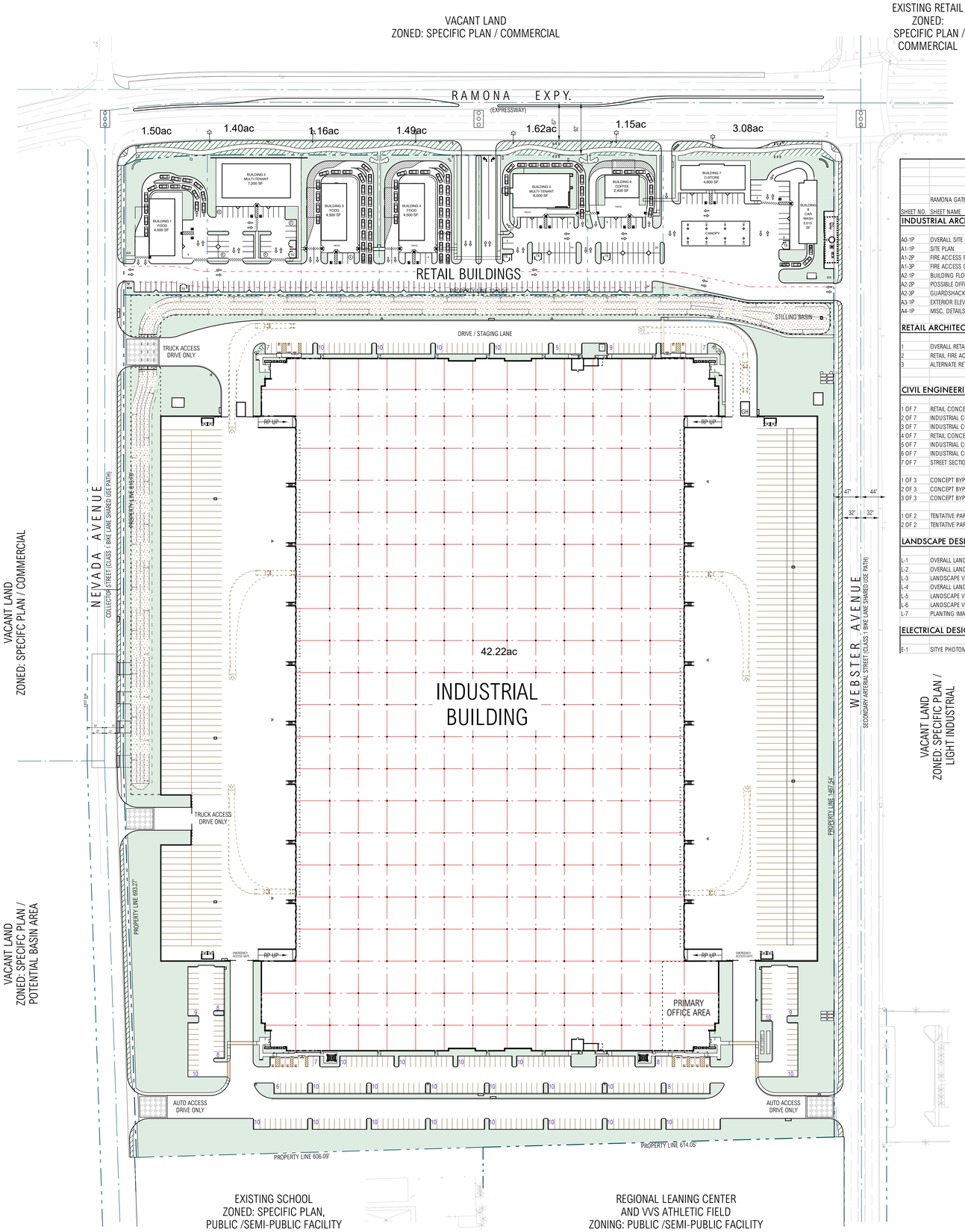
MARK	DATE	DESCRIPTION
CD		
BID		
PC		
DD		
SD	6/20/22	SCHEMATIC DESIGN

RGA PROJECT NO:	21021.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21021-00-A1-1P
DRAWN BY:	MG
CHK'D BY:	CS

COPYRIGHT
RGA, OFFICE OF ARCHITECTURAL DESIGN

SHEET TITLE
SITE PLAN

SHEET: A1-1P



OVERALL SITE PLAN

SCALE: 1" = 80'-0"

SITE LEGEND:

- ON-SITE LANDSCAPED AREA
- OFF-SITE LANDSCAPED AREA
- DECORATIVE AUTO / TRUCK DRIVEWAYS
- SITE PROPERTY LINES
- CITY CURB AND GUTTER LINES
- STREET CENTERLINES
- ON-SITE CURB LINES
- ON-SITE PARKING AND TRAILER STRIPPING

OVERALL PROJECT AREA

TOTAL GROSS SITE AREA:	2,176,883 SF / 49.97 AC
TOTAL STREET DEDICATION SITE AREA:	35,238 SF / .80 AC
RETAIL GROSS SITE AREA:	329,012 SF / 7.55 AC
RETAIL NET SITE AREA:	302,667 SF / 6.95 AC
INDUSTRIAL GROSS SITE AREA:	1,847,873 SF / 42.42 AC
INDUSTRIAL NET SITE AREA:	1,838,978 SF / 42.22 AC
BUILDING AREA:	
INDUSTRIAL FOOTPRINT	850,224 SF
INDUSTRIAL MEZZANINE	100,000 SF
RETAIL DEVELOPMENT	37,215 SF
TOTAL	987,439 SF
INDUSTRIAL LOT COVERAGE: (50% MAX)	46.46 %
INDUSTRIAL FAR COVERAGE:	51.67 %
RETAIL LOT COVERAGE:	12.29 %
AUTO PARKING REQUIRED:	
INDUSTRIAL REQUIRED STALLS	212 STALLS
RETAIL REQUIRED STALLS	187 STALLS
TOTAL REQUIRED STALLS	399 STALLS
AUTO PARKING PROVIDED	
INDUSTRIAL PROVIDED STALLS	348 STALLS
RETAIL PROVIDED STALLS	220 STALLS
TOTAL PROVIDED STALLS	568 STALLS
LANDSCAPE PROVIDED:	
INDUSTRIAL LANDSCAPE	236,011 SF / 13.00 %
RETAIL LANDSCAPE	54,291 SF / 18.00 %
TOTAL LANDSCAPE	290,302 SF / 13.54 %

RAMONA GATEWAY COMMERCE CENTER

SHEET NO.	SHEET NAME	1ST PLD SUBMITTAL 9/27/21	2ND PLD SUBMITTAL 01/25/22
	INDUSTRIAL ARCHITECTURAL DESIGN		
A0-1P	OVERALL SITE PLAN	•	•
A1-1P	SITE PLAN	•	•
A1-2P	FIRE ACCESS PLAN	•	•
A1-3P	FIRE ACCESS DETAILS	•	•
A2-1P	BUILDING FLOOR PLAN	•	•
A2-2P	POSSIBLE OFFICE FLOOR PLANS		•
A2-3P	GUARDSHACK PLAN AND ELEVATIONS		•
A3-1P	EXTERIOR ELEVATIONS	•	•
A4-1P	MISC. DETAILS	•	•
	RETAIL ARCHITECTURAL DESIGN		
1	OVERALL RETAIL SITE PLAN	•	•
2	RETAIL FIRE ACCESS PLAN	•	•
3	ALTERNATE RETAIL ACCESS SITE PLAN		•
	CIVIL ENGINEERING		
1 OF 7	RETAIL CONCEPT GRADING PLAN	•	•
2 OF 7	INDUSTRIAL CONCEPT GRADING PLAN	•	•
3 OF 7	INDUSTRIAL CONCEPT GRADING PLAN	•	•
4 OF 7	RETAIL CONCEPT UTILITY PLAN	•	•
5 OF 7	INDUSTRIAL CONCEPT UTILITY PLAN	•	•
6 OF 7	INDUSTRIAL CONCEPT UTILITY PLAN	•	•
7 OF 7	STREET SECTIONS	•	•
1 OF 3	CONCEPT BYPASS PLAN	•	•
2 OF 3	CONCEPT BYPASS PLAN	•	•
3 OF 3	CONCEPT BYPASS PLAN		•
1 OF 2	TENTATIVE PARCEL MAP	•	•
2 OF 2	TENTATIVE PARCEL MAP	•	•
	LANDSCAPE DESIGN		
L-1	OVERALL LANDSCAPE PLAN - COLOR	•	•
L-2	OVERALL LANDSCAPE PLAN - INDUSTRIAL	•	•
L-3	LANDSCAPE VIGNETTE - INDUSTRIAL	•	•
L-4	OVERALL LANDSCAPE PLAN - RETAIL	•	•
L-5	LANDSCAPE VIGNETTE - RETAIL	•	•
L-6	LANDSCAPE VIGNETTE - RETAIL	•	•
L-7	PLANTING IMAGERY	•	•
	ELECTRICAL DESIGN		
E-1	SITYE PHOTOMETRIC		•

ASSESSOR'S PARCEL NUMBERS

317-120-021, 317-130-048, 317-130-025, 317-130-017, 317-130-021

APPLICATION TYPE

DEVELOPMENT PLAN REVIEW 00-00-0000
CONDITIONAL USE PERMIT: 00-00-0000
SECIFIC PLAN AMENDMENT: 00-00-0000
TENTATIVE PARCEL MAP: 00-00-0000
ZONING: LIGHT INDUSTRIAL - PVCC SP - PERRIS VALLEY COMMERCE CENTER
PERMITTED LAND USE: WAREHOUSE, OFFICE AS PERMITTED

LAND OWNER

PERRIS LANDCO, LLC
201 SPEAR STREET, SUITE 1100
SAN FRANCISO, CA 94105
DANIEL SACHS

APPLICANT

PERRIS LANDCO, LLC
201 SPEAR STREET, SUITE 1100
SAN FRANCISO, CA 94105
DANIEL SACHS

PLAN PREPARER

INDUSTRIAL ARCHITECT:
RGA, OFFICE OF ARCHITECTURAL DESIGN, INC.
15231 ALTON PARKWAY, SUITE 100
IRVINE, CA 92618
CONTACT: MIKE GILL

RETAIL ARCHITECT:
BICKEL GROUP ARCHITECTURAL
3600 BIRCH STREET, SUITE 120
NEWPORT BEACH, CA 92660
CONTACT: JESSICA STEINER

CIVIL ENGINEER:
PBLA ENGINEERING, INC.
1809 E DYER ROAD, SUITE 301
SANTA ANA, CA 92705
CONTACT: STEVE LEVISEE

LANDSCAPE ARCHITECT:
CUMMINGS CURLEY AND ASSOCIATES
1700 PACIFIC COAST HIGHWAY, SUITE C
SEAL BEACH, CA 90740
CONTACT: ROBERT CURLEY

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
A PTN OF LOT 20 PERRY'S SUBDIVISION, BK 7/PG 25 OF MAPS, TOGETHER WITH LOT 1, BLK 9 VAL VERDE TRACT, BK 1/PG 6 OF MAPS, TOGETHER WITH A PTNS OF LOT 22 PERRY'S RE-SUBDIVISION, BK 7/PG 45 OF MAPS, ALL OF OFFICIAL RECORDS, COUNTY OF RIVERSIDE.

VICINITY MAP

RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

RAMONA GATEWAY
COMMERCE CENTER

0000 WEBSTER AVENUE
CITY OF PERRIS, CA

deca

PERRIS LANDCO, LLC
OWNER PHONE: 1-312-576-4291
OWNER: DANIEL SACHS
EMAIL: daniel.sachs@decaco.com

MARK	DATE	DESCRIPTION
CD		
BID		
PC		
DD		
SD	1/25/22	SCHEMATIC DESIGN

RGA PROJECT NO:	21021.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21021-00-A1-0P
DRAWN BY:	MG
CHK'D BY:	CS

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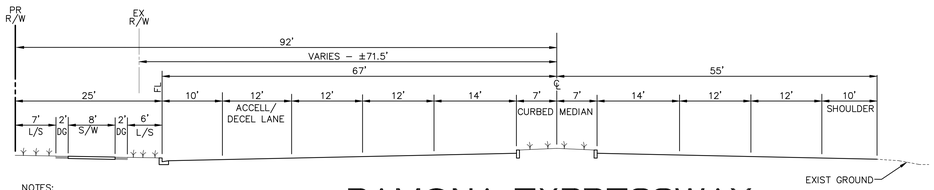
RGA, OFFICE OF ARCHITECTURAL DESIGN

SHEET TITLE

SITE PLAN

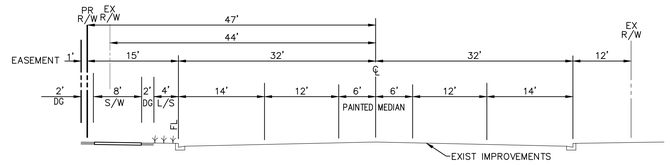
SHEET: A1-0P



NOTES:
- L/S = LANDSCAPE
- G/C = GROUND COVER
- S/W = SIDEWALK
- R/W = RIGHT OF WAY
- DG = DECOMPOSED GRANITE
- AC = ASPHALT CONCRETE
- FL = FLOW LINE
- PR = PROPOSED

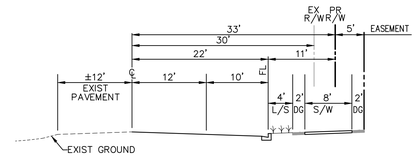
RAMONA EXPRESSWAY

(EXPRESSWAY)
LOOKING WEST – NTS



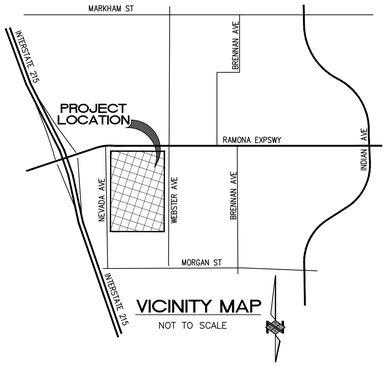
WEBSTER AVENUE

(SECONDARY ARTERIAL)
LOOKING NORTH – NTS



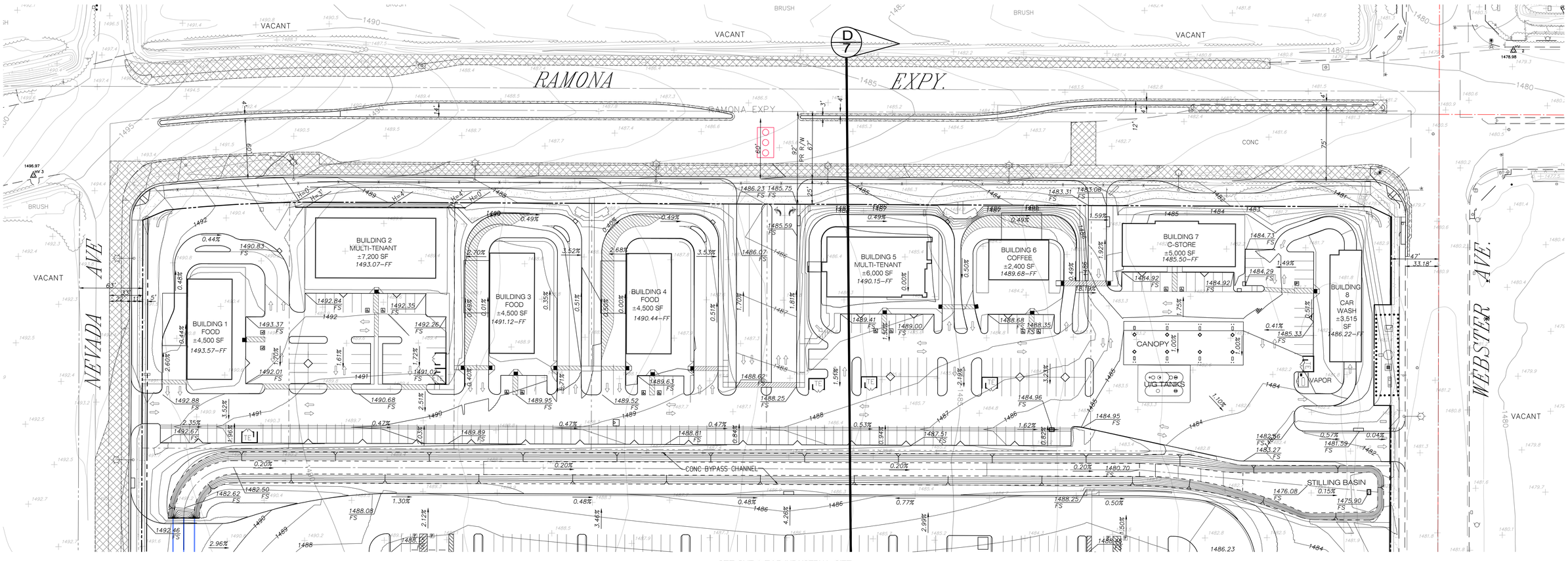
NEVADA AVENUE

(COLLECTOR)
LOOKING NORTH – NTS



VICINITY MAP

NOT TO SCALE



SEE SHT 2 FOR INDUSTRIAL SITE

OVERALL OFFSITE IMPROVEMENT QUANTITIES

DESCRIPTION	QUANTITY
8" CURB & GUTTER	2,762 LF
6" MEDIAN CURB	2,291 LF
4"/10" H.D. PAVEMENT	88,988 SF
6" PCC ARIZONA CROSSING	8,336 SF
ADA ACCESS RAMPS	2 EA
CLASS 1 CONC BIKE PATH	36,679 SF
BUS TURN-OUT	1 EA
CONC DRIVEWAY APPROACH	3,966 SF
REMOVE EX AC PAVEMENT	55,808 SF
REMOVE EX CONC PAVEMENT	1,595 SF
REMOVE EX CURB & GUTTER	107 LF
REMOVE EX CURB ONLY	593 LF
REMOVE EX 4" SIDEWALK	10,448 SF
LANDSCAPE	34,841 SF
MEDIAN LANDSCAPE	4,849 SF
MEDIAN PAVEMENT	2,909 SF

PR AC PAVEMENT

RETAIL SITE WORK QUANTITIES

DESCRIPTION	QUANTITY
6" CURB ONLY	8,717 LF
6" CURB & GUTTER	630 LF
4"/10" H.D. PAVEMENT	67,854 SF
3"/6" L.D. PAVEMENT	97,894 SF
6" CONC APRON	2,715 SF
3' RIBBON GUTTER	1,018 LF
ADA RAMPS	24 EA
SIDEWALK	42,588 EA
RETAINING WALL (RETAIL BLD 2)	800 SF

PRELIMINARY EARTHWORK QUANTITIES

NET VOLUMES	CUT	FILL
RETAIL SITE	14,600 CY	30,200 CY
INDUSTRIAL SITE	227,500 CY	211,900 CY
TOTALS	242,100 CY	242,100 CY

-- BALANCE --

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft

TOPOGRAPHY DATE: 12-23-20

Jan 28 2022

DATE	BY	REVISION

LEGAL DESCRIPTION / AP NUMBERS

A PTN OF LOT 20 PERRY'S SUBDIVISION, BK 7/PG 25 OF MAPS, TOGETHER WITH LOT 1, BLK 9 VAL VERDE TRACT, BK 1/PG 6 OF MAPS, TOGETHER WITH A PTNS OF LOT 22 PERRY'S RE-SUBDIVISION, BK 7/PG 45 OF MAPS, ALL OF OFFICIAL RECORDS, COUNTY OF RIVERSIDE. APN: 317-120-021 317-130-017, 021, 025, 048

SOILS ENGINEER

SOUTHERN CALIFORNIA GEOTECHNICAL
22885 SAVI RANCH PKWY, SUITE E
YORBA LINDA, CA 92887

BENCHMARK DESCRIPTION

A STANDARD 3-1/4 INCH ALUMINUM DISK SET FLUSH AT THE NORTHEAST CORNER OF CAJALCO RD AND SEATON AVE, 65 FEET NORTH OF CAJALCO RD AND 32 FEET EAST OF SEATON AVE, ON THE FOOTING OF A LARGE STEEL POWER POLE 705640/01 ON LOWER FOOTING. ELEV: 1557.17 – NAVD 88

PREPARED FOR:

PERRIS LANDCO, LLC
201 SPEAR STEET #100
SAN FRANCISCO, CA 94105

PREPARED BY:

PBLA ENGINEERING, INC.
Planning • Engineering • Surveying
1809 E. DYER ROAD, STE 301
SANTA ANA, CALIF. 92705
(888) 714-9642 • (714)389-9191 FAX

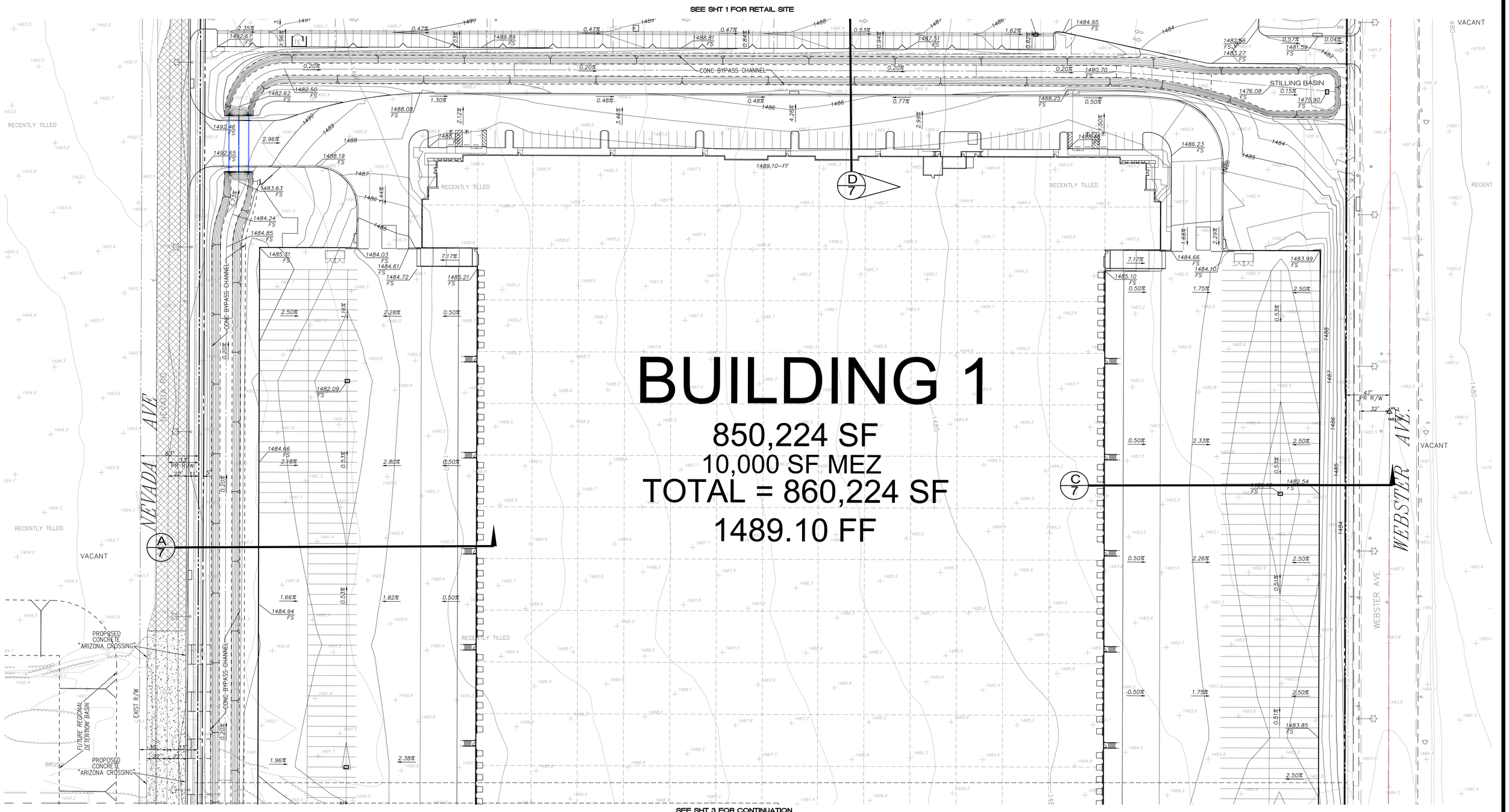
CITY OF PERRIS

CONCEPT GRADING PLAN
RETAIL SITE

RAMONA GATEWAY COMMERCE CENTER

WO 139-1

Sht. 1 of 7



INDUSTRIAL SITE WORK QUANTITIES

DESCRIPTION	QUANTITY
6" CURB ONLY	7,787 LF
6" CURB & GUTTER	3,186 LF
5.5" CONC H.D. PAVEMENT	413,716 SF
3"/6" L.D. PAVEMENT	97,002 SF
5.5" CONC APRON	149,876 SF
ADA RAMPS	15 EA
SIDEWALK	9,557 EA
RETAINING WALL	0 SF

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

TOPOGRAPHY DATE: 12-23-20

Jan 28 2022

DATE	BY	REVISION

PREPARED FOR:

PERRIS LANDCO, LLC
201 SPEAR STEET #100
SAN FRANCISCO, CA 94105

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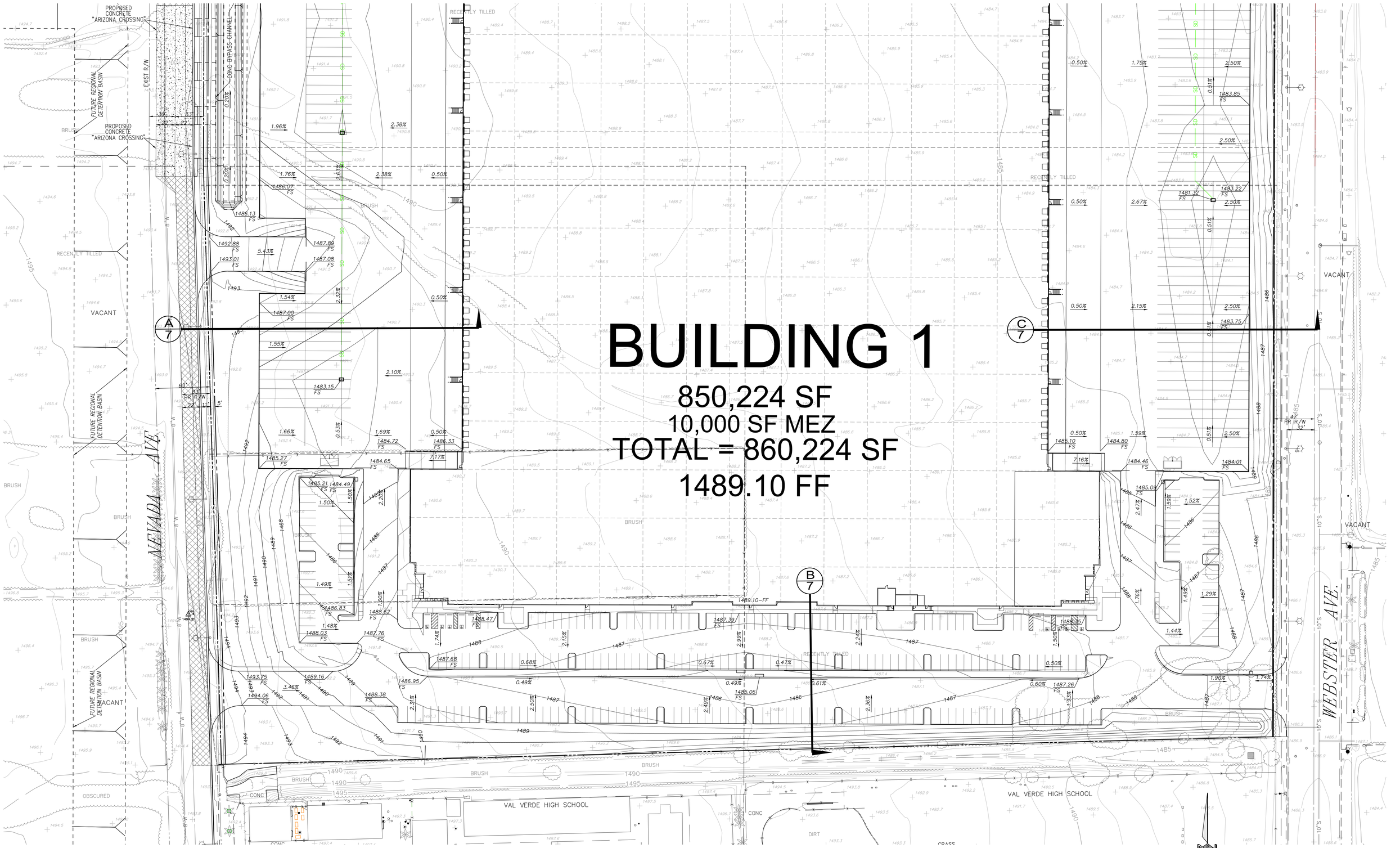
CITY OF PERRIS

CONCEPT GRADING PLAN
INDUSTRIAL SITE
RAMONA GATEWAY COMMERCE CENTER

WO 139-1

Sht. 2 of 7

SEE SHT 2 FOR CONTINUATION



TOPOGRAPHY DATE: 12-23-20

Jan 28 2022

DATE	BY	REVISION

PREPARED FOR:
PERRIS LANDCO, LLC
201 SPEAR STEET #100
SAN FRANCISCO, CA 94105

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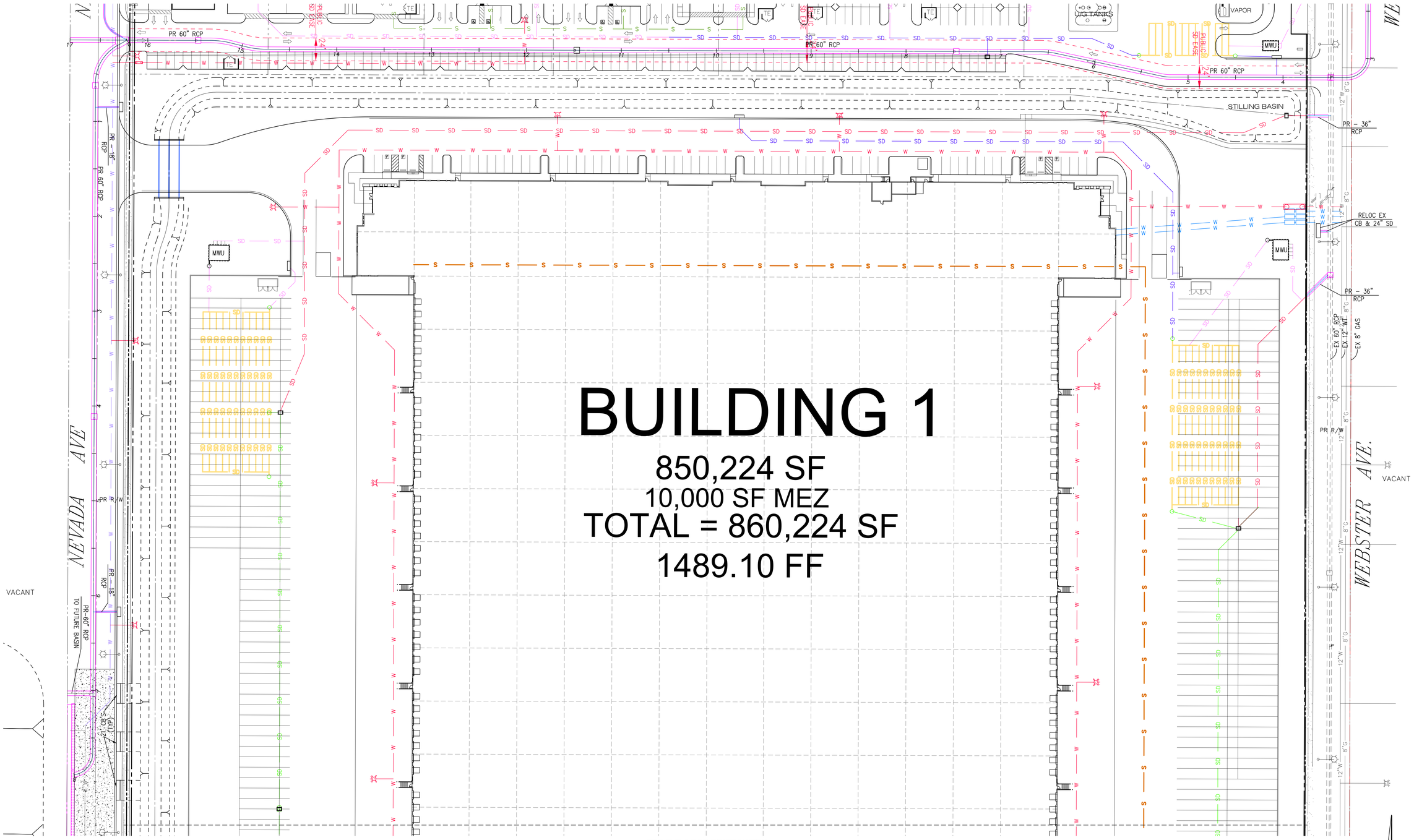
CITY OF PERRIS
CONCEPT GRADING PLAN
INDUSTRIAL SITE
RAMONA GATEWAY COMMERCE CENTER

WO 139-1

Sht. 3 of 7

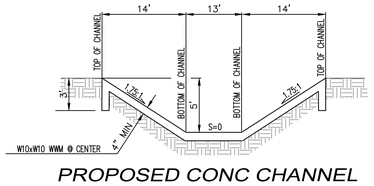
SEE SHT 4 FOR RETAIL SITE



SEE SHT 6 FOR CONTINUATION

INDUSTRIAL SITE UTILITY QUANTITIES

	DESCRIPTION	QUANTITY
SD	12" STORM DRAIN	1,199 LF
SD	18" STORM DRAIN	1,584 LF
SD	24" STORM DRAIN	964 LF
SD	36" STORM DRAIN	1,640 LF
SD	60" STORAGE SYSTEM	4,000 LF
	BYPASS CHANNEL PER DETAIL	1,943 LF
	20'W X 4' H RCB	60 LF
	RCB HEADWALL	2 EA
MWU	MODULAR WETLANDS UNIT	2 EA
	WET WELL/1 HP SUMP PUMP	2 EA
S	6" SEWER	1,119 LF
S	8" SEWER	2,153 LF
W	3" DOMESTIC WATER	713 LF
	1.5" DOMESTIC WATER METER & BF	6 EA
WT	10" FIRE WATER MAIN	5,047 LF
WT	8" FIRE RISER LATERAL	200 LF
WT	6" FIRE WATER LATERAL	406 LF
	FIRE HYDRANT	14 EA



PROPOSED CONC CHANNEL

N.T.S.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

TOPOGRAPHY DATE: 12-23-20

Jan 28 2022

DATE	BY	REVISION

PREPARED FOR:
PERRIS LANDCO, LLC
201 SPEAR STEET #100
SAN FRANCISCO, CA 94105

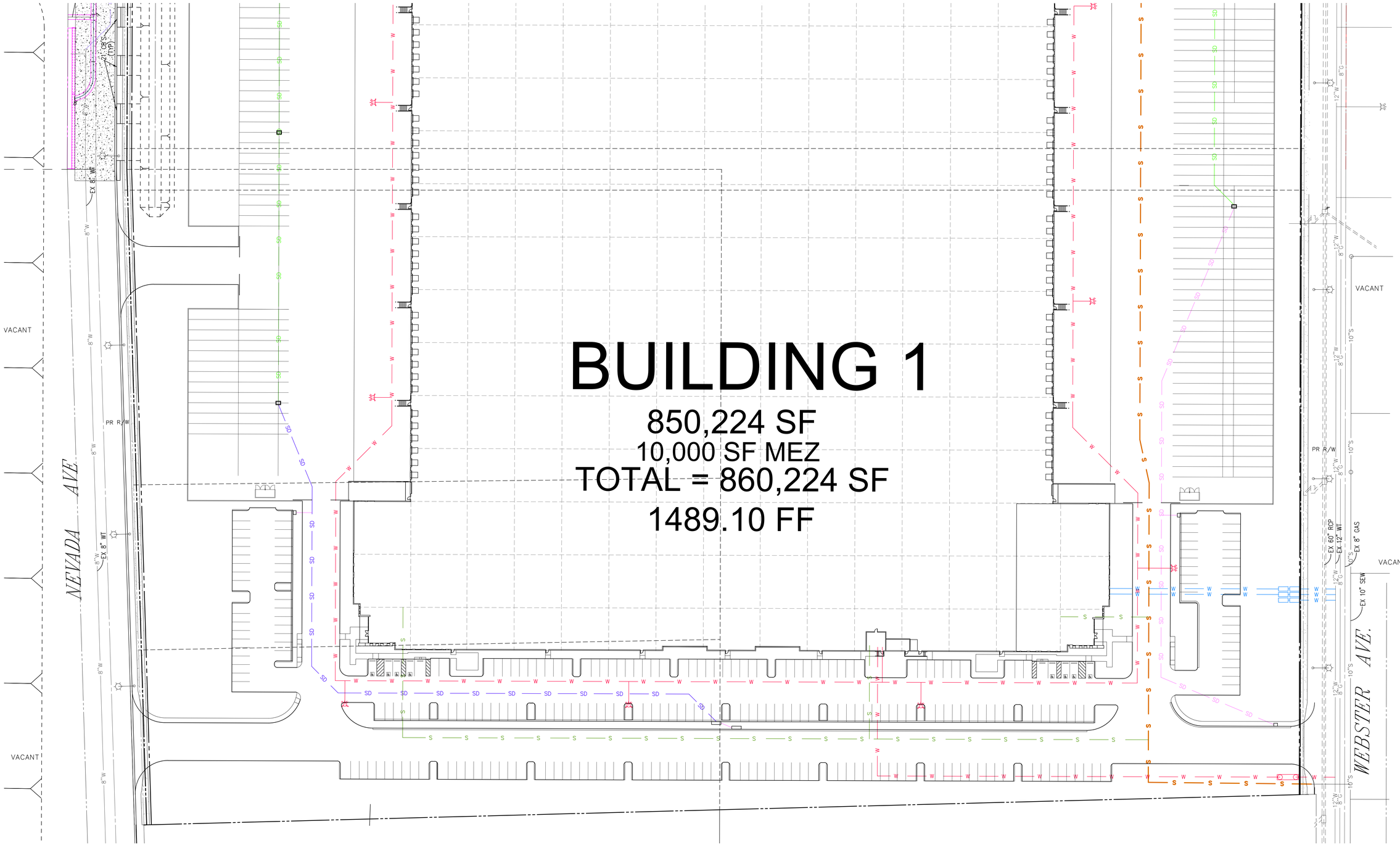
PREPARED BY:
PBLA ENGINEERING, INC.
Planning • Engineering • Surveying
1809 E. DYER ROAD, STE 301
SANTA ANA, CALIF. 92705
(888) 714-9642 • (714)389-9191 FAX

CITY OF PERRIS
CONCEPT UTILITY PLAN
INDUSTRIAL SITE
RAMONA GATEWAY COMMERCE CENTER

WO 139-1

Sht. 5 of 7

SEE SHT 5 FOR CONTINUATION



LEGEND

- SD — 12" STORM DRAIN
- SD — 18" STORM DRAIN
- SD — 24" STORM DRAIN
- SD — 36" STORM DRAIN
- SD — 60" STORAGE SYSTEM
- BYPASS CHANNEL PER DETAIL
- MWL — MODULAR WETLANDS UNIT
- WET WELL/1 HP SUMP PUMP
- S — 6" SEWER
- S — 8" SEWER
- W — 3" DOMESTIC WATER
- 1.5" DOMESTIC WATER METER & BF
- WT — 10" FIRE WATER MAIN
- WT — 8" FIRE RISER LATERAL
- WT — 6" FIRE WATER LATERAL
- FIRE HYDRANT

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

TOPOGRAPHY DATE: 12-23-20

Jan 28 2022

DATE	BY	REVISION

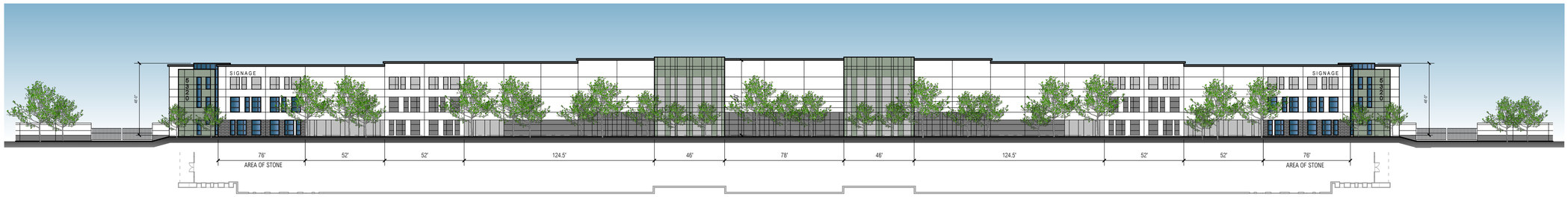
PREPARED FOR:
PERRIS LANDCO, LLC
201 SPEAR STEET #100
SAN FRANCISCO, CA 94105

PREPARED BY:
PBLA ENGINEERING, INC.
Planning • Engineering • Surveying
1809 E. DYER ROAD, STE 301
SANTA ANA, CALIF. 92705
(888) 714-9642 • (714)389-9191 FAX

CITY OF PERRIS
CONCEPT UTILITY PLAN
INDUSTRIAL SITE
RAMONA GATEWAY COMMERCE CENTER

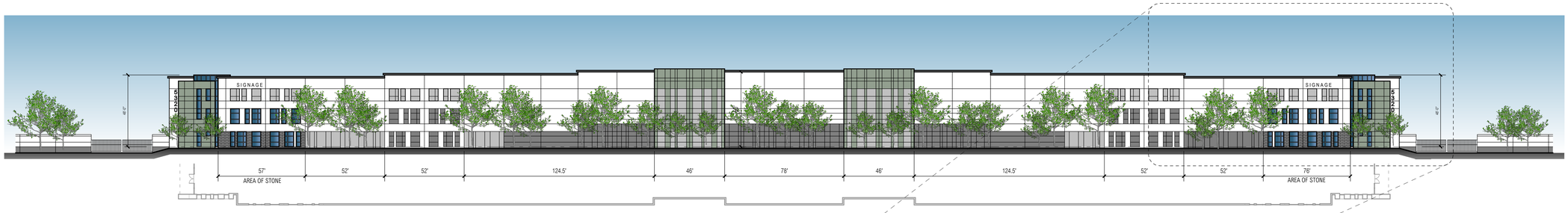
WO 139-1

Sht. 6 of 7



SOUTH ELEVATION

SCALE: 1" = 30'-0"



NORTH ELEVATION

SCALE: 1" = 30'-0"

FINISH SCHEDULE

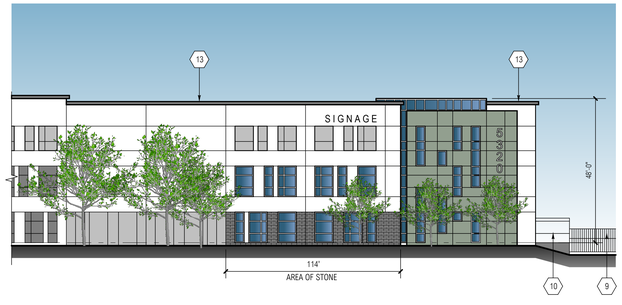
1. FIELD COLOR - SW 7063 NEBULOUS WHITE
2. ACCENT COLOR - SW 7650 ELLIE GRAY
3. ACCENT COLOR - SW 6192 COASTAL PLAIN
4. BASE ACCENT COLOR - SW 7067 CITYSCAPE
5. GLAZING - SEE KEYNOTE 5 -1/4" PPG SOLARCOOL PACIFICA, REFLECTIVE #2 INSIDE LITE: 1/4" CLEAR SHADING COEFFICIENT: 0.29 / SOLAR HEAT GAIN COEFFICIENT: 0.25 U-FACTOR WINTER NIGHTTIME: 0.47 / U-FACTOR SUMMER DAYTIME: 0.50

KEYNOTES

1. PRIMARY BUILDING ENTRANCE
2. PAINTED 12' WIDE X 15' HIGH LEVEL VERTICAL LIFT TRUCK DOOR.
3. PAINTED 9' WIDE X 10' HIGH VERTICAL LIFT TRUCK DOOR.
4. 3' X 7' PAINTED METAL MAN DOOR.
5. 2" WIDE X 3/4" DEEP HORIZONTAL / VERTICAL REVEAL.
6. BLUE GLASS IN CLEAR ALUMINUM STOREFRONT FRAME SYSTEM.
7. PAINTED CONCRETE TILT-UP EXTERIOR WALL CONSTRUCTION.
8. PROPOSED FUTURE TENANT SIGNAGE LOCATION.
9. 8' HIGH BLACK TUBULAR STEEL ROLLING GATE - TYP. AT YARD ENTRANCES.
10. TYP. PAINTED CONCRETE SCREEN WALL ELEVATION W/ ACCENT REVEALS AND PAINTED ACCENTS TO MATCH BUILDING ARCHITECTURE.
11. ALUMINUM METAL PANEL ENTRY CANOPY.
12. TUBULAR STEEL TRELLIS BEAMS.
13. ALUMINUM CAP AT PARAPET TOP, 1' TALL

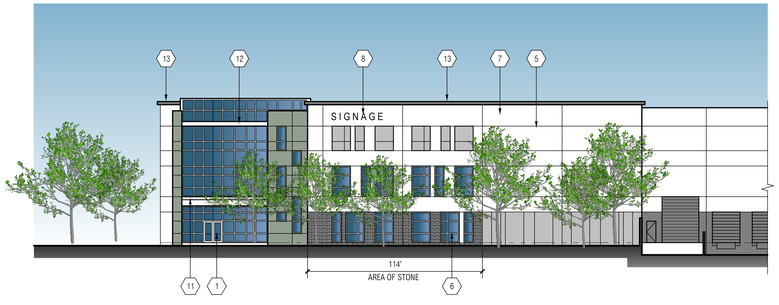
WEST ELEVATION WITHOUT SCREENWALL (EAST ELEVATION SIMILAR)

SCALE: 1" = 40'-0"



PARTIAL NORTH ELEVATION

SCALE: 1" = 20'-0"



PARTIAL WEST ELEVATION

SCALE: 1" = 20'-0"

RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

CONSULTANT

PROFESSIONAL SEALS

RAMONA GATEWAY
COMMERCE CENTER

0000 WEBSTER AVENUE
CITY OF PERRIS, CA

deca

PERRIS LANDCO, LLC
OWNER PHONE: 1-312-576-4291
OWNER: DANIEL SACHS
EMAIL: daniel.sachs@decaco.com

MARK	DATE	DESCRIPTION
CD		
BID		
PC		
DD		
SD	1/25/22	SCHEMATIC DESIGN

RGA PROJECT NO:	21021.00
OWNER PROJECT NO:	00000.00
CAD FILE NAME:	21021-00-A3-1P
DRAWN BY:	MG
CHK'D BY:	CS

COPYRIGHT
RGA, OFFICE OF ARCHITECTURAL DESIGN

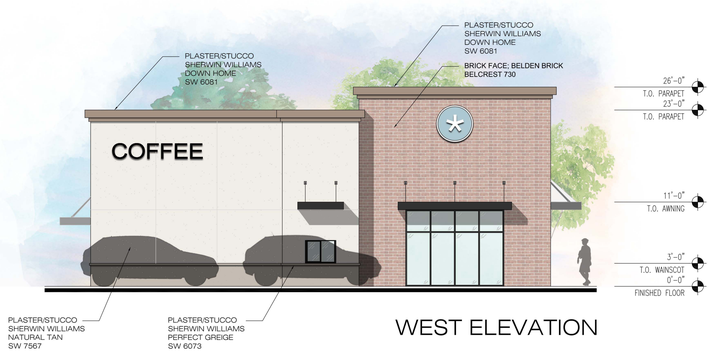
SHEET TITLE

EXTERIOR ELEVATIONS

SHEET: A3-1P

SOUTH ELEVATION

EAST ELEVATION



WEST ELEVATION

NORTH ELEVATION

BICKEL GROUP
ARCHITECTURE
BICKEL GROUP INCORPORATED
3600 BIRCH STREET, SUITE 120
NEWPORT BEACH, CA 92660
P: 949.757.0411 F: 949.757.0511
www.bickelgrp.com

RAMONA GATEWAY COMMERCE CENTER

PERRIS RAMONA EXPRESSWAY AND WEBSTER AVENUE
PERRIS, CALIFORNIA

REPRESENTATIVE RETAIL ELEVATIONS

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

January 31, 2022

P:\21\21320 - Perris Ramona Expressway and Webster Avenue\Design\Elevations\x21320 Building 5 Multi-Tenant - Elevations.dwg

The plans, ideas, arrangements and designs indicated or represented by this drawing are owned by, and are the property of BICKEL GROUP, and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from BICKEL GROUP © 2017.

VESTING TENTATIVE PARCEL MAP No. 38292

IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

LOT 20 OF PERRY'S RESUBDIVISION, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILED IN BOOK 7, PAGE 45 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED FILED FOR RECORD SEPTEMBER 18, 1958 AS INSTRUMENT NO. 67003 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

A STRIP OF LAND 142 FEET IN RIGHT ANGLE WIDTH, BEING 48 FEET ON THE NORTHERLY SIDE AND 94 FEET ON THE SOUTHERLY SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WESTERLY PROLONGATION OF THE CENTER LINE OF MARTIN STREET, SAID POINT ALSO BEING ON THE WESTERLY PROLONGATION OF THE SOUTHERLY LINE OF LOT 17 OF PERRY'S RESUBDIVISION, WHICH BEARS SOUTH 89° 51' 57" WEST, (FORMERLY RECORDED SOUTH 89° 50–1/2' 0" WEST) 2431.48 FEET FROM THE NORTHEAST CORNER OF SAID LOT 20; THENCE SOUTH 89° 54' EAST, 2431.48 FEET, TO A POINT WHICH BEARS SOUTH 00° 06' WEST, 9.94 FEET FROM THE NORTHEAST CORNER OF SAID LOT 20;

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED NOVEMBER 3, 1982 AS INSTRUMENT NO. 190779 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF SAID LOT 20, SAID POINT ALSO BEING ON THE NORTHERLY LINE OF DAWES STREET, 44.00 FEET WIDE, AS SHOWN ON SAID MAP; THENCE ALONG THE WESTERLY LINE OF SAID LOT NORTH 0° 32' 52" EAST, 1056.79 FEET TO THE SOUTHERLY LINE OF MARTIN STREET 142.00 FEET WIDE, AS SHOWN ON COUNTY OF RIVERSIDE DEED PLAT 727–FF; THENCE ALONG SAID SOUTHERLY LINE SOUTH 89° 23' 28" EAST, 211.37 FEET; THENCE COURSE "A"; SOUTH 87° 21' 31" WEST 182.21; THENCE SOUTH 0° 36' 28" WEST, 1046.35 FEET TO THE NORTHERLY LINE OF SAID DAWES STREET; THENCE ALONG SAID NORTHERLY LINE NORTH 89° 36' 45" WEST, 28.34 FEET TO THE POINT OF BEGINNING.

PARCEL TWO:

LOT 1 IN BLOCK 9 OF VAL VERDE TRACT, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 1 PAGE 6 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

FOR CONVEYANCING PURPOSES ONLY: APN 317–120–021 (AFFECTS PARCEL ONE)
APN: 317–130–048 (AFFECTS PARCEL TWO)

NOTE: PORTIONS OF PARCELS B AND C (APN NOS. 317–130–016 AND 317–130–020) LISTED BELOW ARE NOT A PART OF THIS SURVEY

PARCEL A:

PARCEL 2 OF CERTIFICATE OF COMPLIANCE NO. 1944, AS EVIDENCED BY DOCUMENT RECORDED APRIL 30, 1984 AS INSTRUMENT NO. 90090 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE NORTHERLY 9.65 ACRES OF LOT 22 OF PERRY RE–SUBDIVISION, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAPON FILE IN BOOK 7, PAGE 45 OF MAPS, RIVERSIDE COUNTY RECORDS, WHICH LIES EAST OF THE EAST LINE OF PARCEL 6932–2, AS CONVEYED TO THE STATE OF CALIFORNIA, BY DEED RECORDED FEBRUARY 8, 1983, AS INSTRUMENT NO. 24397, OF OFFICIAL RECORDS.

PARCEL B:

THE NORTHERLY 5 ACRES OF THE SOUTHERLY 10 ACRES OF LOT 22 OF MAP OF THE PERRY RESUBDIVISION, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 7, PAGE 45 OF MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY, CALIFORNIA BY DEEDS RECORDED JUNE 13, 1914 IN BOOK 398, PAGE 366 AND OCTOBER 15, 1914 IN BOOK 406, PAGE 7, BOTH OF DEEDS.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA BY DEEDS RECORDED MAY 9, 1952 AS INSTRUMENT NO. 19822 IN BOOK 1366, PAGE 508 AND AUGUST 4, 1953 AS INSTRUMENT NO. 38295 IN BOOK 1497, PAGE 75, BOTH OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM THOSE PORTIONS DESCRIBED AS PARCELS 6931–1 AND 6931–2 CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED OCTOBER 29, 1982 AS INSTRUMENT 188036 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM ALL SUBTERRANEAN WATER FLOWING OR PERCOLATING THROUGH SAID LAND, AS SET OUT IN DEED TO THE VAL VERDE WATER DISTRICT RECORDED OCTOBER 17, 1918 IN BOOK 492, PAGE 223 OF DEEDS.

PARCEL C:

THE SOUTHERLY 5 ACRES OF LOT 22 OF MAP OF THE PERRY RE–SUBDIVISION, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 7, PAGE 45 OF MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO RIVERSIDE COUNTY, CALIFORNIA BY DEEDS RECORDED JUNE 13, 1914 IN BOOK 398, PAGE 366 AND OCTOBER 15, 1914 IN BOOK 406, PAGE 7, BOTH OF DEEDS.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE STATE OF CALIFORNIA BY DEEDS RECORDED MAY 15, 1952 AS INSTRUMENT NO. 20854 IN BOOK 1368, PAGE 477 AND AUGUST 4, 1953 AS INSTRUMENT NO. 38296 IN BOOK 1497, PAGE 70, BOTH OF OFFICIAL RECORDS.

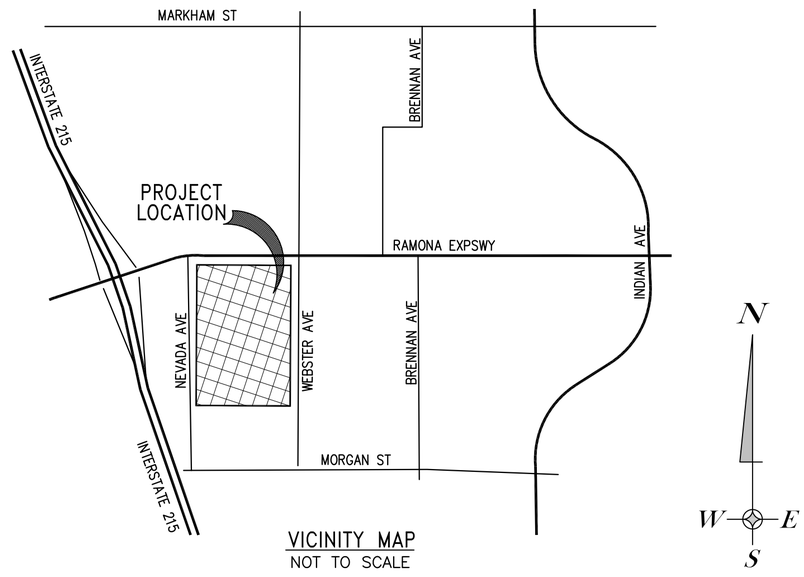
ALSO EXCEPTING THEREFROM THOSE PORTIONS DESCRIBED AS PARCELS 6930–1 AND 6930–2 CONVEYED TO THE STATE OF CALIFORNIA BY DEED RECORDED OCTOBER 20, 1982 AS INSTRUMENT NO. 181523 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM ALL SUBTERRANEAN WATER FLOWING OR PERCOLATING THROUGH SAID LAND, AS SET OUT IN DEED TO THE VAL VERDE WATER DISTRICT RECORDED OCTOBER 17, 1918 IN BOOK 492, PAGE 223 OF DEEDS.

APN: 317–130–025 (AFFECTS: PARCEL A)
317–130–016 (AFFECTS: PORTION OF PARCEL B) – NOT A PART OF THIS SURVEY
317–130–017 (AFFECTS: PORTION OF PARCEL B)
317–130–020 (AFFECTS: PORTION OF PARCEL C) – NOT A PART OF THIS SURVEY
317–130–021 (AFFECTS: PORTION OF PARCEL C)

ASSESSOR'S PARCEL NUMBERS

317–120–021, 317–130–017, 317–130–021, 317–130–025 & 317–130–048



VICINITY MAP
NOT TO SCALE

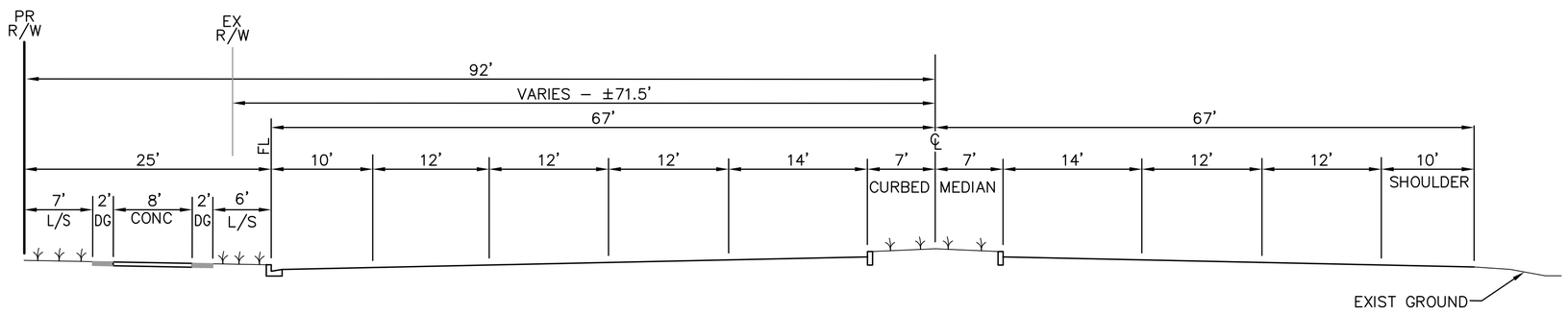
EIGHT (7) NUMBERED LOTS – NO LETTERED LOTS

NO PARK/ NO OPEN SPACE ACRES

BOUNDARY AND PARCEL INFORMATION

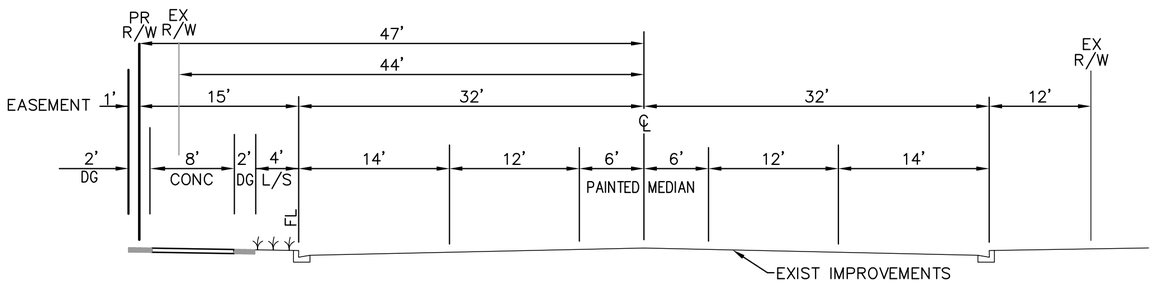
	GROSS	NET
BOUNDARY	49.97 AC / 2,176,883.26 SF	49.17 AC / 2,141,645.49 SF
PARCEL 1	0.80 AC / 34,857.42 SF	– –
PARCEL 2	0.92 AC / 40,137.78 SF	– –
PARCEL 3	0.76 AC / 33,314.80 SF	– –
PARCEL 4	0.98 AC / 42,492.99 SF	– –
PARCEL 5	1.06 AC / 46,319.45 SF	– –
PARCEL 6	0.75 AC / 32,815.66 SF	– –
PARCEL 7	1.67 AC / 72,729.09 SF	– –
PARCEL 8	42.22 AC / 1,838,978.28 SF	– –

STREET SECTIONS

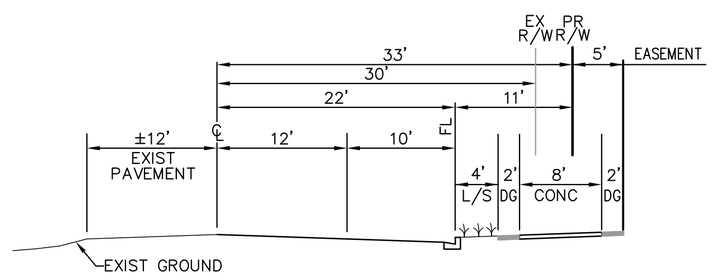


RAMONA EXPRESSWAY
(EXPRESSWAY)
LOOKING WEST – NTS

NOTES:
L/S = LANDSCAPE
G/C = GROUND COVER
S/W = SIDEWALK
DG = DECOMPOSED GRANITE
AC = ASPHALT CONCRETE
FL = FLOW LINE
PR = PROPOSED



WEBSTER AVENUE
(SECONDARY ARTERIAL)
LOOKING NORTH – NTS

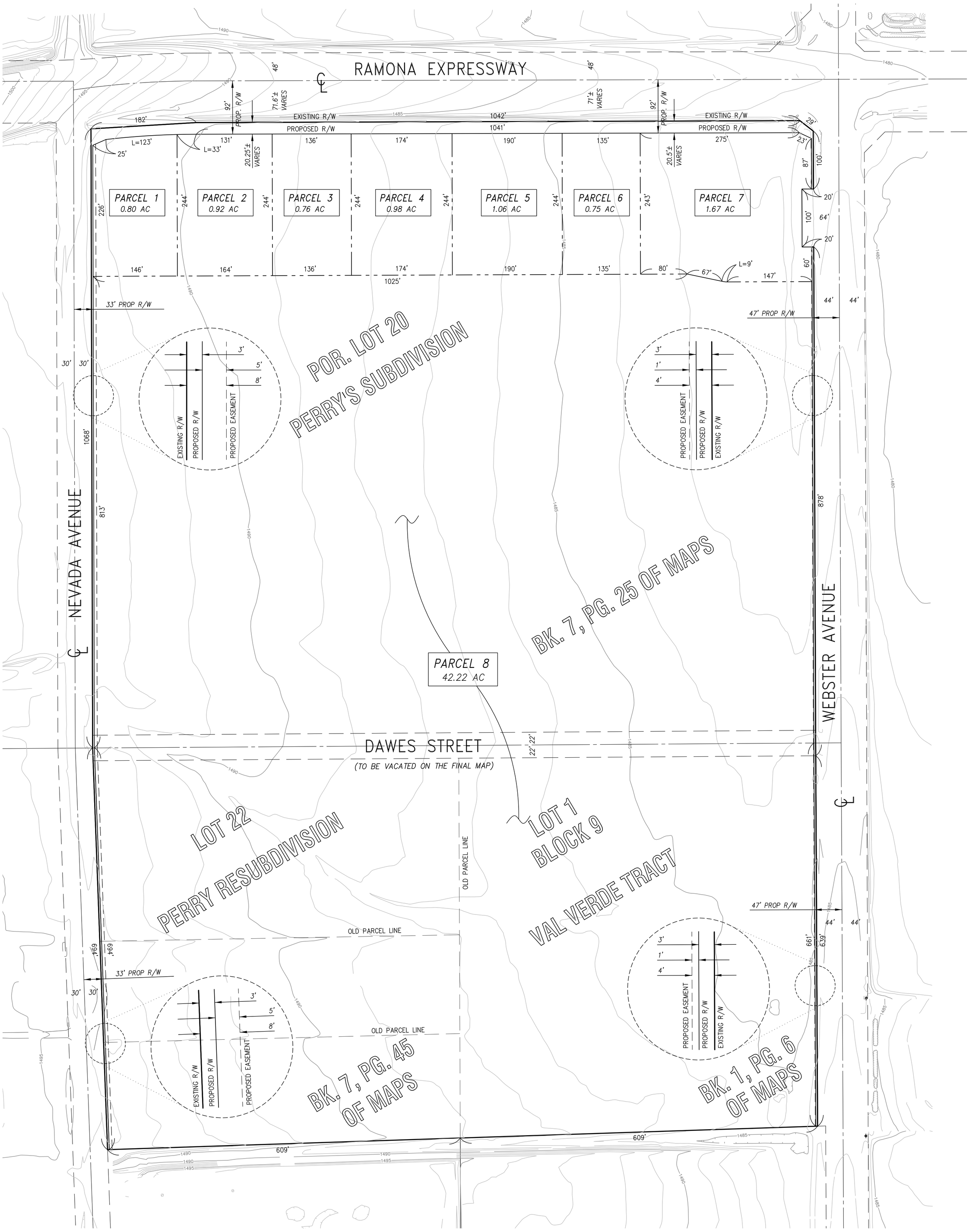


NEVADA AVENUE
(COLLECTOR)
LOOKING NORTH – NTS

PREPARED BY:	JOB NO.
PBLA ENGINEERING, INC. 1809 E. DYER ROAD SUITE 301 SANTA ANA, CA. 92705 888.714.9642	139-1
	SHEET
PREPARATION DATE: **Jun 01 2022**	1 of 2

VESTING TENTATIVE PARCEL MAP No. 38292

IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



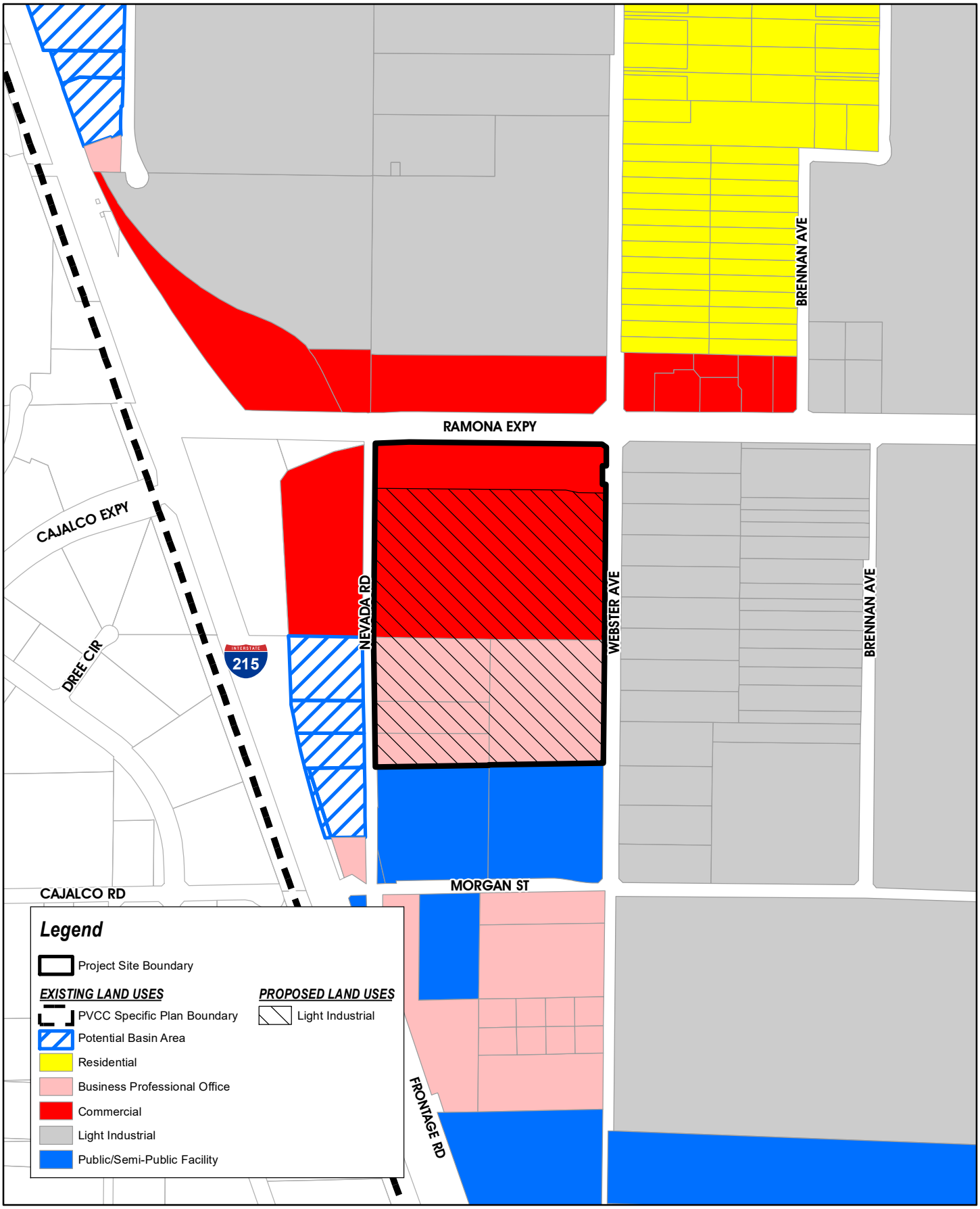
N
W E
S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PREPARED BY:	JOB NO.
PBLA ENGINEERING, INC. 1809 E. DYER ROAD SUITE 301 SANTA ANA, CA. 92705 888.714.9642	139-1
	SHEET
PREPARATION DATE: Jun 01 2022	2 of 2



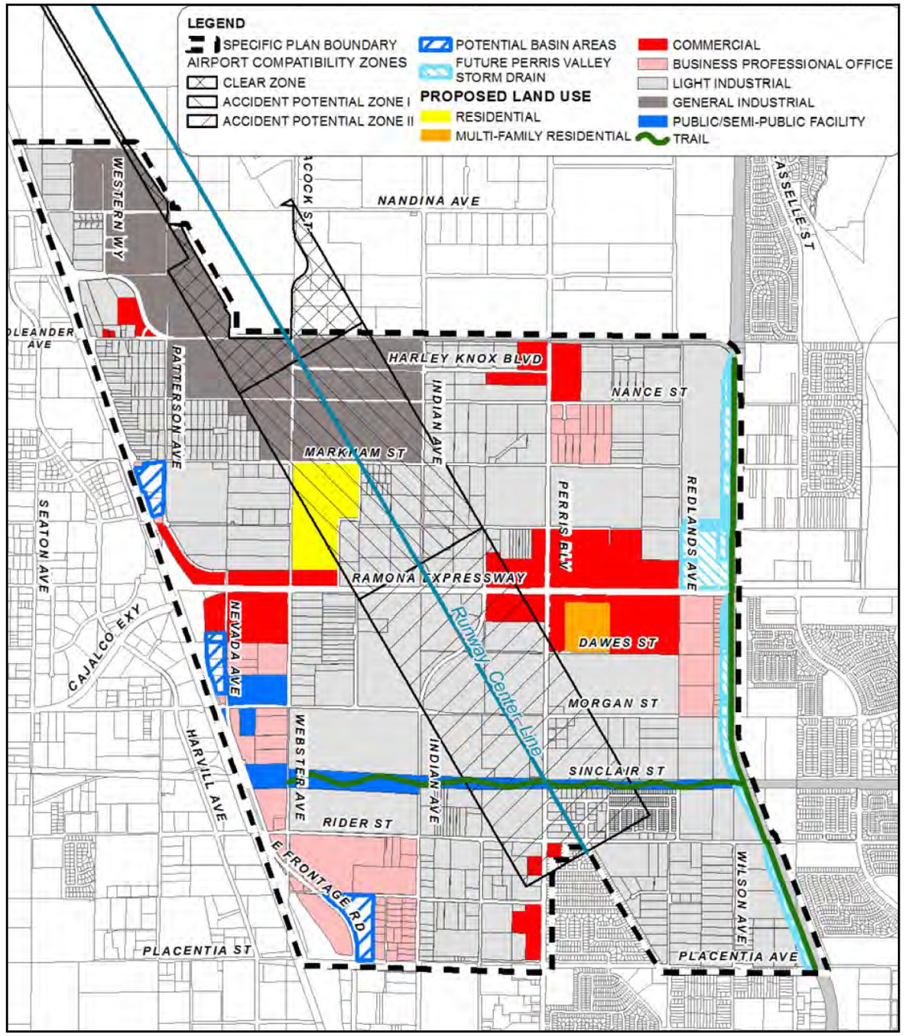
Source(s): Esri, RCTLMA (2021)

0 175 350 700 Feet

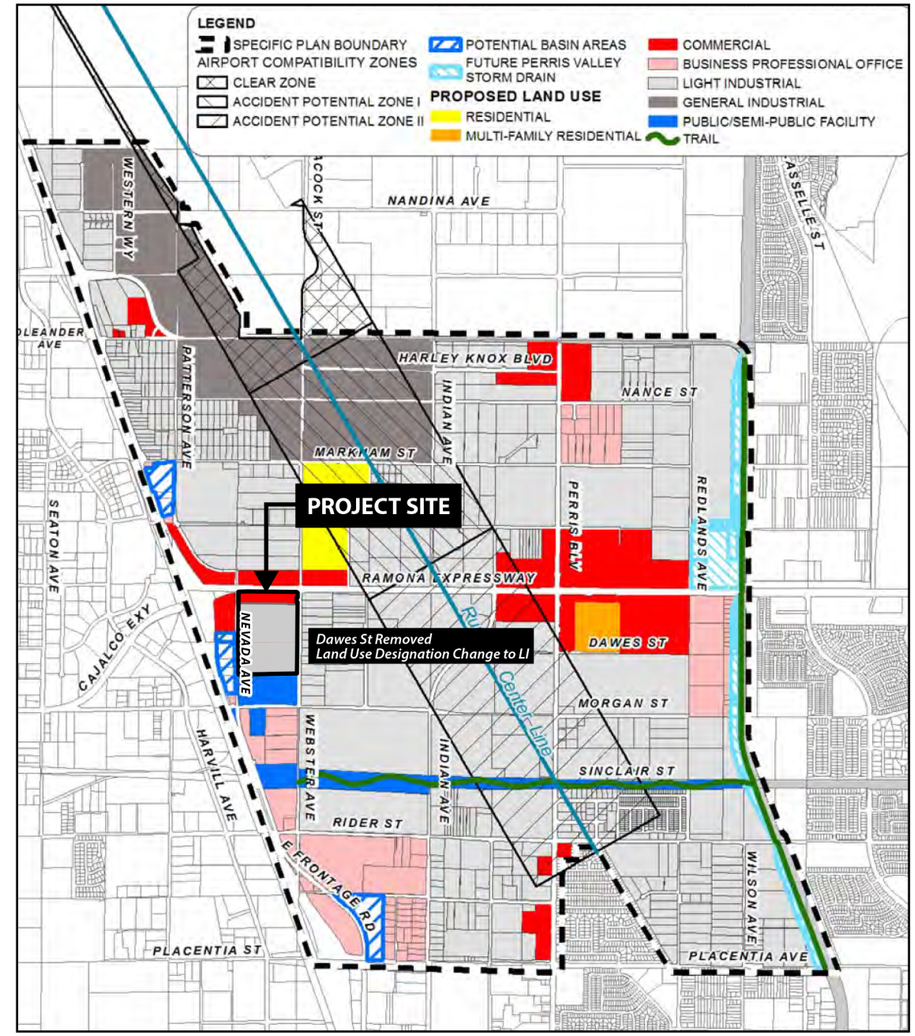
PVCC Specific Plan Amendment
Existing & Proposed Land Use Designations

Figure 2.0-1, Specific Plan Land Use Designation

EXISTING



PROPOSED



Not to Scale

Ramona Gateway Commerce Center
PVCC Specific Plan Amendment

Technical Memorandum

To: Jon Yolles, Covus Development
From: Nick Johnson, Johnson Aviation, Inc.
Date: July 26, 2022

Subject: Solar Glare Analysis – Solar Photovoltaic (PV) Installation, Ramona Gateway Commerce Center

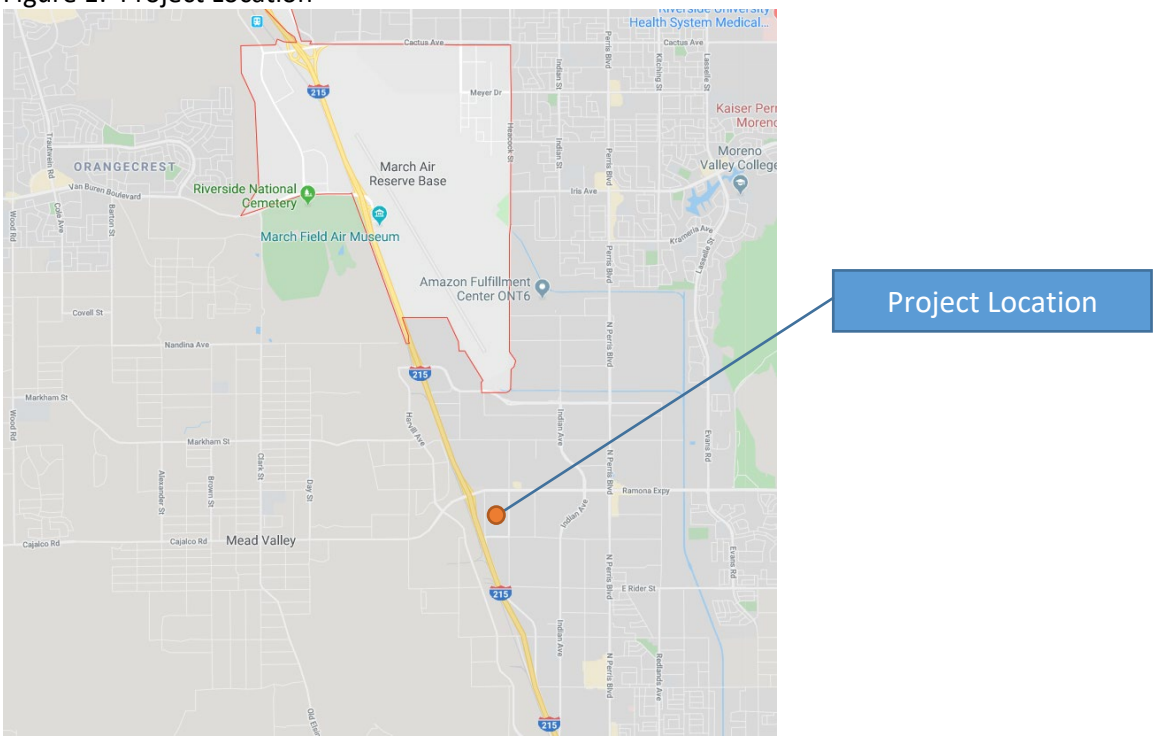
A. Findings

The findings of this Solar Glare Analysis are that the Proposed Project **PASSES** the FAA's recommended solar glare tests and **PASSES** 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 a portion of the roof of the Industrial Building portion of the Ramona Gateway Commerce Center Project (Project). The Project site is located south of Ramona Expressway, west of Webster Avenue, north of Val Verde High School, and east of Nevada Road in the City of Perris (City) and 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 City, Riverside County Airport Land Use Commission (ALUC) and the March ARB staff.

Figure 1: Project Location

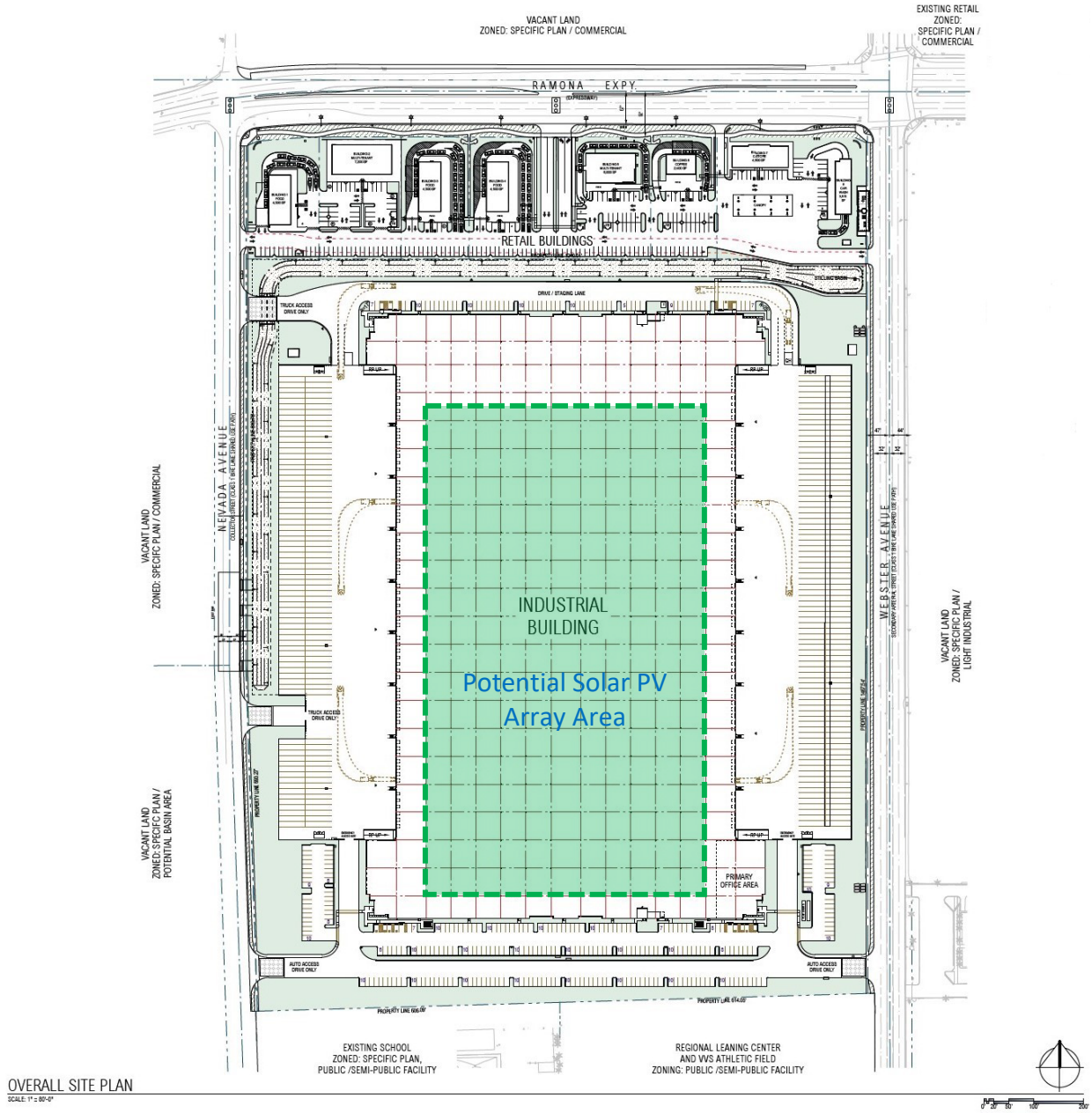


C. Project Description

Perris Landco, LLC, the Project Owner, may decide to develop a roof-top solar PV installation on the Ramona Gateway Project. The site is comprised of commercial properties on the northern portion of the

property along Ramona Expressway and a single industrial building totaling 950,224 square feet in southern portion of the property (approximately 850,224 square feet of footprint area and 100,000 square feet at the mezzanine level). The potential solar PV installation would be located on the southerly portion of the building roof (See Figure 2) in a total site area on the roof of the building of approximately 550,000 square feet.

Figure 2: Ramona Gateway Commerce Center Project – Potential Solar PV Installation



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 Policy[1] for Solar PV project review in 2013 and completed a final solar glare policy in 2021[2]. 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 of 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:
>
> 1. 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

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.

Attachment A-1
2013 FAA Policy Review

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**
Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC2-All Final Approaches**
Analysis conducted by Nick Johnson (nick.johnson@johnson-aviation.com) at 13:57 on 13 Jul, 2022.

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: 72250.12670
Methodology: V2

PV Array(s)

Name: RGCC Industrial Full Roof
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	33.843184	-117.246923	1490.07	53.00	1543.08
2	33.843184	-117.245079	1490.07	53.00	1543.08
3	33.840133	-117.245079	1490.07	53.00	1543.08
4	33.840133	-117.246923	1490.07	53.00	1543.08

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	1500.07	50.00	1550.08
Two-mile	33.898508	-117.270608	1500.07	1300.06	2800.14

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	1500.07	50.00	1550.08
Two-mile	33.906486	-117.277783	1500.07	1500.07	3000.15

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	1500.07	50.00	1550.08
Two-mile	33.876069	-117.243611	1500.07	1300.06	2800.14

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	1500.07	50.00	1550.08
Two-mile	33.854942	-117.241136	1500.07	1500.07	3000.15

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

Map image of 1-ATCT

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
RGCC Industrial Full Roof	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: RGCC Industrial Full Roof

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 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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Attachment A-2
2021 FAA Policy Review

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**

Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC2-All Final Approaches**

Client: PERRIS LANDCO LLC

Created 13 Jul, 2022
Updated 13 Jul, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 72250.12670
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
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.
- 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: RGCC Industrial Full Roof
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	33.843184	-117.246923	1490.07	53.00	1543.08
2	33.843184	-117.245079	1490.07	53.00	1543.08
3	33.840133	-117.245079	1490.07	53.00	1543.08
4	33.840133	-117.246923	1490.07	53.00	1543.08

Observation Point ATCT Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

Map image of 1-ATCT

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	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: RGCC Industrial Full Roof

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

RGCC Industrial Full Roof 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 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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Attachment B
March ARB Runway 12/30 General Aviation Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**

Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC2-MARB Runway 12-30 GA Analysis**

Client: PERRIS LANDCO LLC

Created 13 Jul, 2022
Updated 13 Jul, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 72251.12670
Category 500 kW to 1 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	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
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: RGCC Industrial Full Roof
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	33.843184	-117.246923	1490.07	53.00	1543.08
2	33.843184	-117.245079	1490.07	53.00	1543.08
3	33.840133	-117.245079	1490.07	53.00	1543.08
4	33.840133	-117.246923	1490.07	53.00	1543.08

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	1500.07	50.00	1550.08
2	33.876069	-117.243611	1500.07	1300.06	2800.14
3	33.876081	-117.235119	1500.07	1300.06	2800.14
4	33.880814	-117.229467	1500.07	1300.06	2800.14
5	33.887897	-117.229483	1500.07	1300.06	2800.14
6	33.910333	-117.256469	1500.07	1300.06	2800.14
7	33.910322	-117.264967	1500.07	1300.06	2800.14
8	33.905592	-117.270622	1500.07	1300.06	2800.14
9	33.898508	-117.270608	1500.07	1300.06	2800.14
10	33.890258	-117.260681	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
2	33.898508	-117.270608	1500.07	1300.06	2800.14
3	33.905592	-117.270622	1500.07	1300.06	2800.14
4	33.910322	-117.264967	1500.07	1300.06	2800.14
5	33.910333	-117.256469	1500.07	1300.06	2800.14
6	33.887897	-117.229483	1500.07	1300.06	2800.14
7	33.880814	-117.229467	1500.07	1300.06	2800.14
8	33.876081	-117.235119	1500.07	1300.06	2800.14
9	33.876069	-117.243611	1500.07	1300.06	2800.14
10	33.884319	-117.253536	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
Two-mile	33.898508	-117.270608	1500.07	1300.06	2800.14

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	1500.07	50.00	1550.08
Two-mile	33.876069	-117.243611	1500.07	1300.06	2800.14

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

Map image of 1-ATCT

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	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
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: RGCC Industrial Full Roof no glare found

Receptor results ordered by category of glare

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

RGCC Industrial Full Roof and RWY 12 GA Pattern Route

Receptor type: Route

No glare found

RGCC Industrial Full Roof and RWY 30 GA Pattern Route

Receptor type: Route

No glare found

RGCC Industrial Full Roof and RWY 12 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Full Roof and RWY 30 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Full Roof and 1-ATCT

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

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**

Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC3-MARB Runway 14-32 GA Analysis**

Client: PERRIS LANDCO LLC

Created 13 Jul, 2022
Updated 13 Jul, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 72271.12670
Category 500 kW to 1 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Midpoint Roof	10.0	180.0	25,249	420.8	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
RWY 14 GA Pattern Route	0	0.0	0	0.0
RWY 32 GA Pattern Route	25,249	420.8	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

Component Data

PV Arrays

Name: RGCC Industrial Midpoint Roof
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	33.842756	-117.246934	1485.93	53.00	1538.93
2	33.842765	-117.245133	1482.32	53.00	1535.32
3	33.840025	-117.245079	1483.84	53.00	1536.84
4	33.839994	-117.246891	1489.02	53.00	1542.02

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	1500.07	50.00	1550.08
2	33.854942	-117.241136	1500.07	1500.07	3000.15
3	33.848078	-117.243236	1500.07	1500.07	3000.15
4	33.844669	-117.250119	1500.07	1500.07	3000.15
5	33.846422	-117.258344	1500.07	1500.07	3000.15
6	33.897972	-117.295011	1500.07	1500.07	3000.15
7	33.904833	-117.292903	1500.07	1500.07	3000.15
8	33.908242	-117.286017	1500.07	1500.07	3000.15
9	33.906486	-117.277783	1500.07	1500.07	3000.15
10	33.896431	-117.270636	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
2	33.906486	-117.277783	1500.07	1500.07	3000.15
3	33.908242	-117.286017	1500.07	1500.07	3000.15
4	33.904833	-117.292903	1500.07	1500.07	3000.15
5	33.897972	-117.295011	1500.07	1500.07	3000.15
6	33.846422	-117.258344	1500.07	1500.07	3000.15
7	33.844669	-117.250119	1500.07	1500.07	3000.15
8	33.848078	-117.243236	1500.07	1500.07	3000.15
9	33.854942	-117.241136	1500.07	1500.07	3000.15
10	33.864994	-117.248281	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
Two-mile	33.906486	-117.277783	1500.07	1500.07	3000.15

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	1500.07	50.00	1550.08
Two-mile	33.854942	-117.241136	1500.07	1500.07	3000.15

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

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
	°	°	min	hr	min	hr	kWh
RGCC Industrial Midpoint Roof	10.0	180.0	25,249	420.8	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
RWY 14 GA Pattern Route	0	0.0	0	0.0
RWY 32 GA Pattern Route	25,249	420.8	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

PV: RGCC Industrial Midpoint Roof low potential for temporary after-image

Receptor results ordered by category of glare

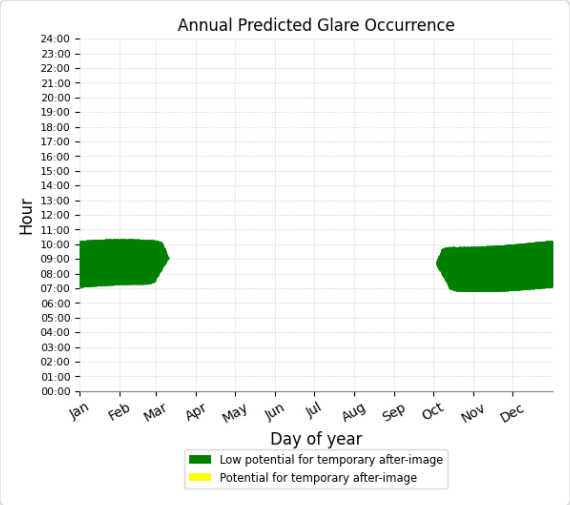
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 GA Pattern Route	25,249	420.8	0	0.0
RWY 14 GA Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

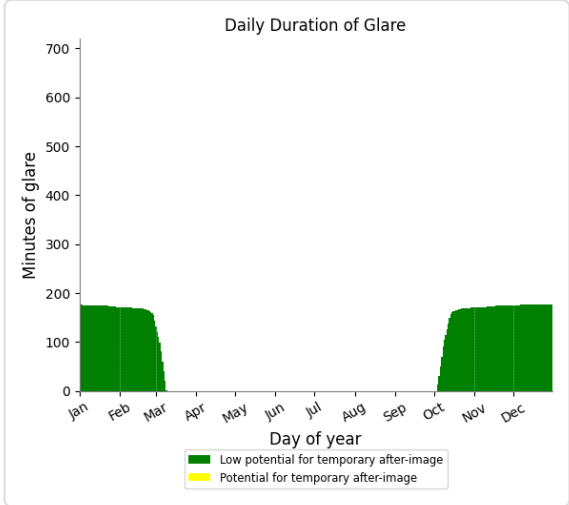
RGCC Industrial Midpoint Roof and RWY 32 GA Pattern Route

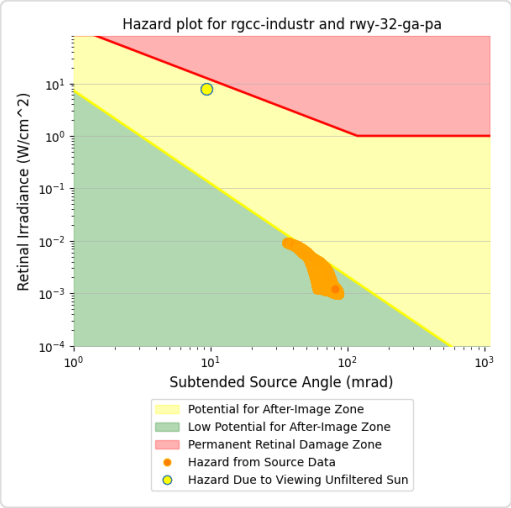
Receptor type: Route

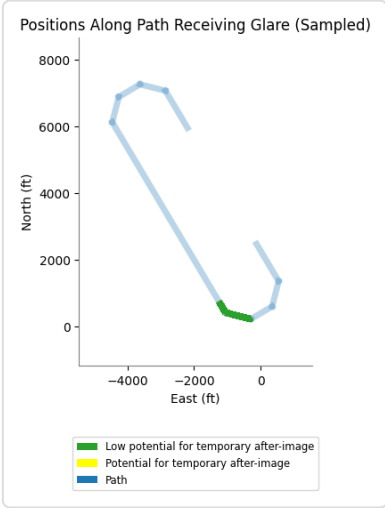
0 minutes of yellow glare

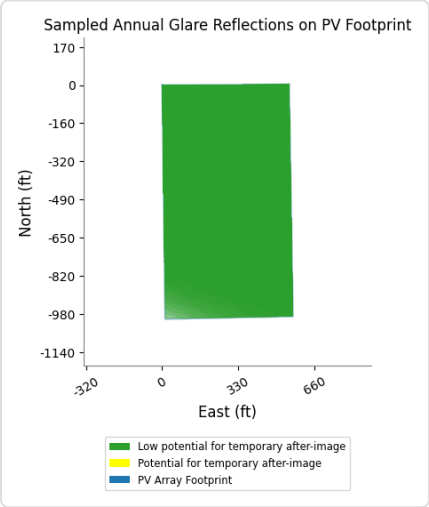
25,249 minutes of green glare











RGCC Industrial Midpoint Roof and RWY 14 GA Pattern Route

Receptor type: Route

No glare found

RGCC Industrial Midpoint Roof and RWY 14 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Midpoint Roof and RWY 32 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Midpoint Roof and 1-ATCT

Receptor type: 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 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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Attachment D
March ARB Runway 14/32 C-17/KC-135 Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**

Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC2-MARB RWY 14-32 C-17 Analysis**

Client: PERRIS LANDCO LLC

Created 13 Jul, 2022
Updated 13 Jul, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 72254.12670
Category 500 kW to 1 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	10.0	180.0	6,861	114.3	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
RWY 14 C-17 - KC-135 Pattern Route	0	0.0	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	6,861	114.3	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: RGCC Industrial Full Roof
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	33.843184	-117.246923	1490.07	53.00	1543.08
2	33.843184	-117.245079	1490.07	53.00	1543.08
3	33.840133	-117.245079	1490.07	53.00	1543.08
4	33.840133	-117.246923	1490.07	53.00	1543.08

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	1500.07	50.00	1550.08
2	33.836269	-117.227869	1500.07	1500.07	3000.15
3	33.821961	-117.228367	1500.07	1500.07	3000.15
4	33.813147	-117.244350	1500.07	1500.07	3000.15
5	33.819225	-117.262269	1500.07	1500.07	3000.15
6	33.908131	-117.325528	1500.07	1500.07	3000.15
7	33.922394	-117.325047	1500.07	1500.07	3000.15
8	33.931244	-117.309014	1500.07	1500.07	3000.15
9	33.925156	-117.291061	1500.07	1500.07	3000.15
10	33.896431	-117.270636	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
2	33.925156	-117.291061	1500.07	1500.07	3000.15
3	33.931244	-117.309014	1500.07	1500.07	3000.15
4	33.922394	-117.325047	1500.07	1500.07	3000.15
5	33.908131	-117.325528	1500.07	1500.07	3000.15
6	33.819225	-117.262269	1500.07	1500.07	3000.15
7	33.813147	-117.244350	1500.07	1500.07	3000.15
8	33.821961	-117.228367	1500.07	1500.07	3000.15
9	33.836269	-117.227869	1500.07	1500.07	3000.15
10	33.864994	-117.248281	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
Two-mile	33.906486	-117.277783	1500.07	1500.07	3000.15

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	1500.07	50.00	1550.08
Two-mile	33.854942	-117.241136	1500.07	1500.07	3000.15

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

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
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	10.0	180.0	6,861	114.3	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
RWY 14 C-17 - KC-135 Pattern Route	0	0.0	0	0.0
RWY 32 C-17 - KC-135 Pattern Route	6,861	114.3	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: RGCC Industrial Full Roof low potential for temporary after-image

Receptor results ordered by category of glare

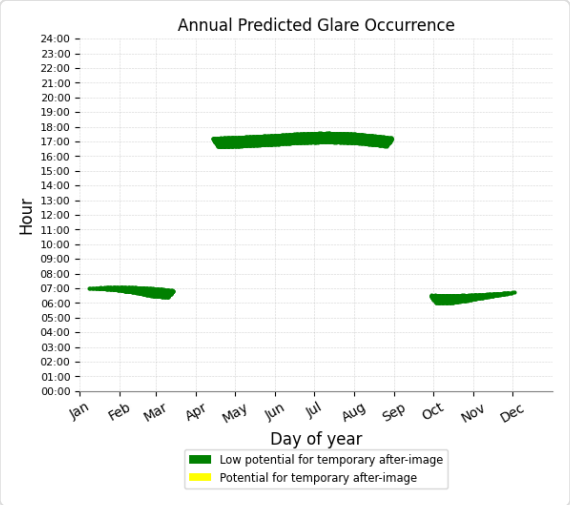
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 C-17 - KC-135 Pattern Route	6,861	114.3	0	0.0
RWY 14 C-17 - KC-135 Pattern Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

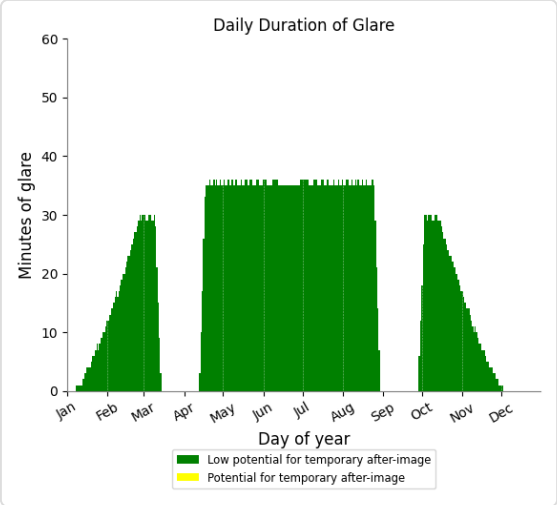
RGCC Industrial Full Roof and RWY 32 C-17 - KC-135 Pattern Route

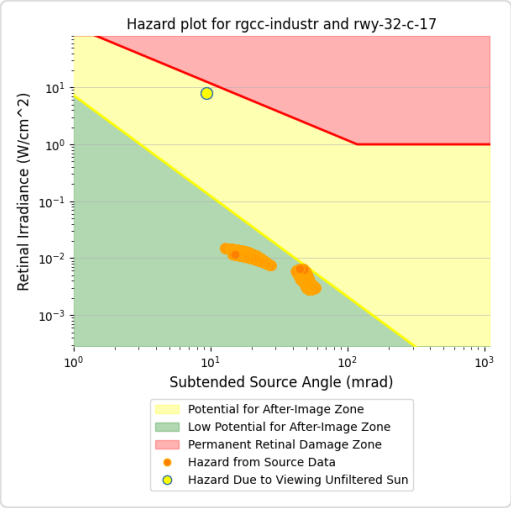
Receptor type: Route

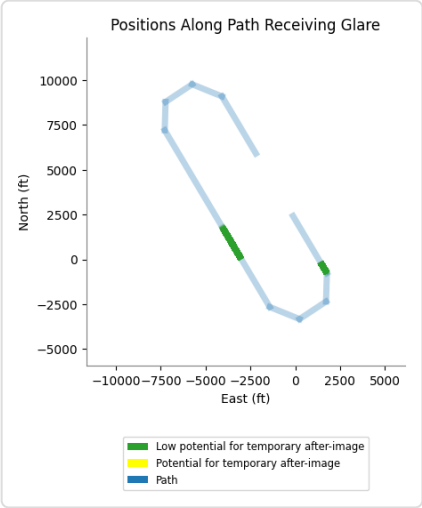
0 minutes of yellow glare

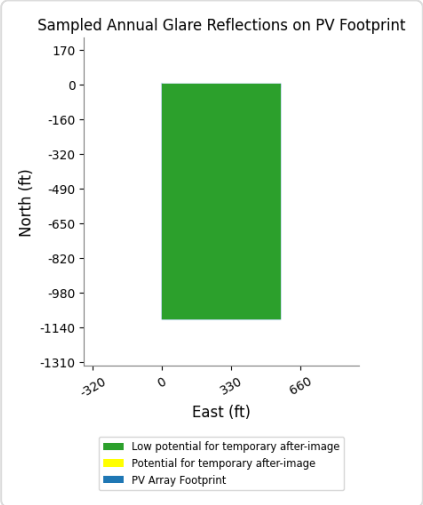
6,861 minutes of green glare











RGCC Industrial Full Roof and RWY 14 C-17 - KC-135 Pattern Route

Receptor type: Route
No glare found

RGCC Industrial Full Roof and RWY 14 Final

Receptor type: 2-mile Flight Path
No glare found

RGCC Industrial Full Roof and RWY 32 Final

Receptor type: 2-mile Flight Path
No glare found

RGCC Industrial Full Roof and 1-ATCT

Receptor type: 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 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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Attachment E
March ARB Runway 14/32 Overhead Traffic Pattern Analysis

FORGESOLAR GLARE ANALYSIS

Project: **Ramona Gateway Commerce Center**

Solar glare analysis of approximately 250,000 s.f. solar PV array on rooftop of proposed RGCC industrial building.

Site configuration: **RGCC2-MARB RWY 14-32 Overhead Analysis**

Client: PERRIS LANDCO LLC

Created 13 Jul, 2022
Updated 13 Jul, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 72256.12670
Category 500 kW to 1 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2

Summary of Results

Glare with low potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	10.0	180.0	10,174	169.6	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
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 32 Overhead Route	10,174	169.6	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: RGCC Industrial Full Roof
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	33.843184	-117.246923	1490.07	53.00	1543.08
2	33.843184	-117.245079	1490.07	53.00	1543.08
3	33.840133	-117.245079	1490.07	53.00	1543.08
4	33.840133	-117.246923	1490.07	53.00	1543.08

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	1500.07	2000.10	3500.17
2	33.880706	-117.259453	1500.07	2000.10	3500.17
3	33.863564	-117.293808	1500.07	2000.10	3500.17
4	33.908131	-117.325528	1500.07	2000.10	3500.17
5	33.925156	-117.291061	1500.07	2000.10	3500.17
6	33.896431	-117.270636	1500.07	50.00	1550.08

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	1500.07	2000.10	3500.17
2	33.880706	-117.259453	1500.07	2000.10	3500.17
3	33.863564	-117.293808	1500.07	2000.10	3500.17
4	33.819225	-117.262269	1500.07	2000.10	3500.17
5	33.836269	-117.227869	1500.07	2000.10	3500.17
6	33.864994	-117.248281	1500.07	50.00	1550.08

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	1500.07	50.00	1550.08
Two-mile	33.906486	-117.277783	1500.07	2000.10	3500.17

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	1500.07	50.00	1550.08
Two-mile	33.854942	-117.241136	1500.07	2000.10	3500.17

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.891572	-117.251203	1511.07	118.01

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
	°	°	min	hr	min	hr	kWh
RGCC Industrial Full Roof	10.0	180.0	10,174	169.6	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
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 32 Overhead Route	10,174	169.6	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: RGCC Industrial Full Roof low potential for temporary after-image

Receptor results ordered by category of glare

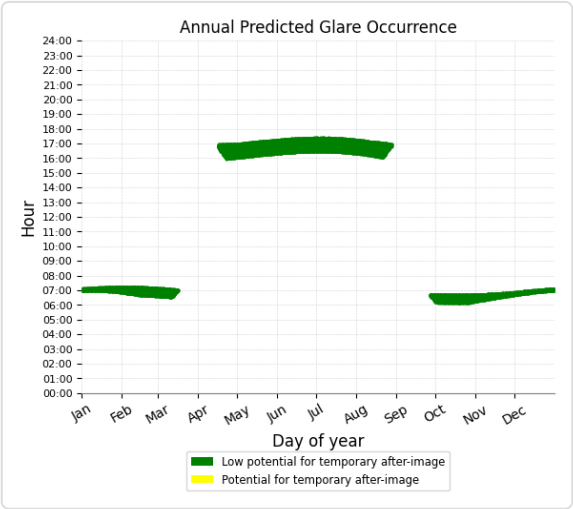
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
RWY 32 Overhead Route	10,174	169.6	0	0.0
RWY 14 Overhead Route	0	0.0	0	0.0
RWY 14 Final	0	0.0	0	0.0
RWY 32 Final	0	0.0	0	0.0
1-ATCT	0	0.0	0	0.0

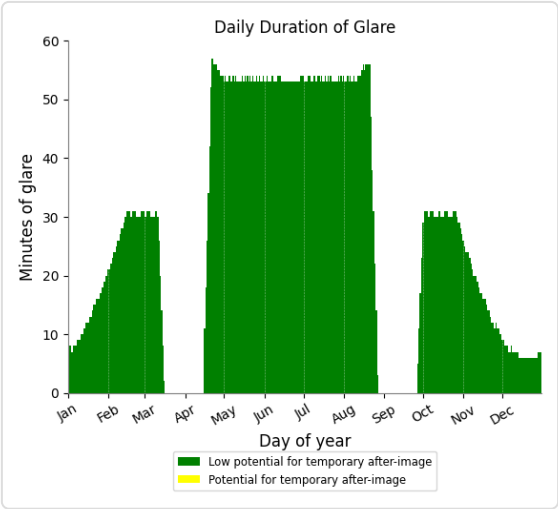
RGCC Industrial Full Roof and RWY 32 Overhead Route

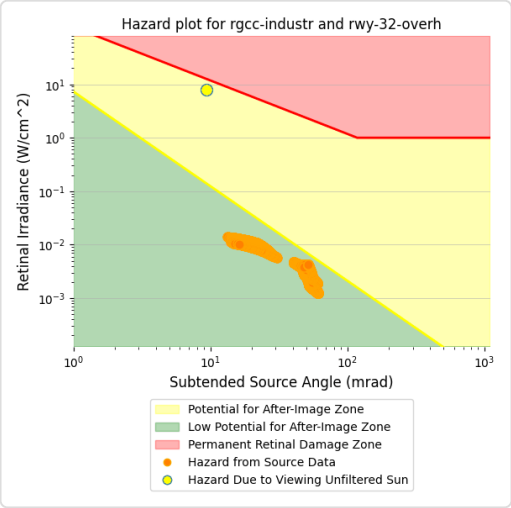
Receptor type: Route

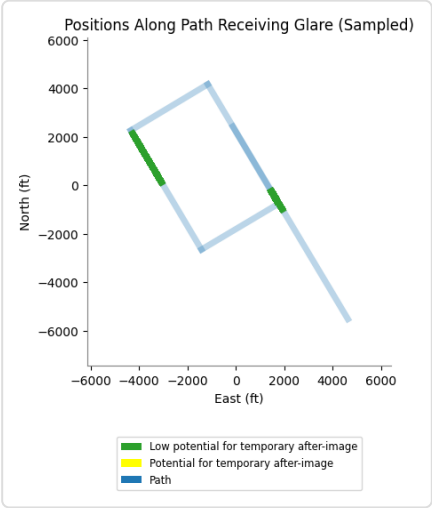
0 minutes of yellow glare

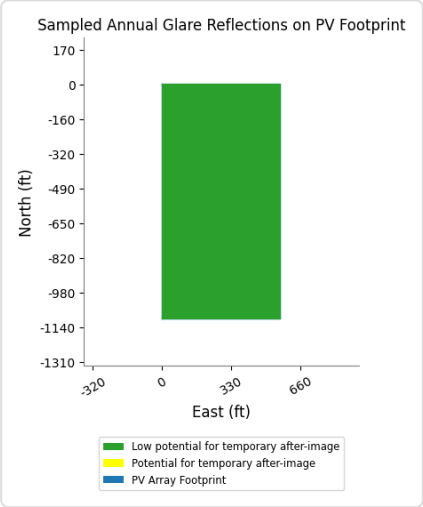
10,174 minutes of green glare











RGCC Industrial Full Roof and RWY 14 Overhead Route

Receptor type: Route

No glare found

RGCC Industrial Full Roof and RWY 14 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Full Roof and RWY 32 Final

Receptor type: 2-mile Flight Path

No glare found

RGCC Industrial Full Roof and 1-ATCT

Receptor type: 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 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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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 City of Perris Planning Department should be contacted on non-ALUC issues. For more information please contact City of Perris Planner Kenneth Phung 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 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: **December 15, 2022**

TIME OF HEARING: **9:30 A.M.**

CASE DESCRIPTION:

ZAP1541MA22 – Perris Land Company, LLC (Representative: Johnson Aviation) – City of Perris Case Nos. PLN21-05218 (Specific Plan Amendment), DPR21-00013 (Development Plan Review), PLN21-05216 (Conditional Use Permit), PLN21-05219 (Tentative Parcel Map No. 38292). A proposal for a mixed-use commercial industrial development on 55.86 gross acres which includes: 8 commercial buildings totaling 37,215 square feet consisting of retail, restaurant, and gas station with convenience store and car wash; and a 950,224 square foot high-cube industrial warehouse building with mezzanines, located southerly of Ramona Expressway, westerly of Webster Avenue, easterly of Nevada Avenue, and northerly of Morgan Street. The applicant also proposes to amend the Perris Valley Commerce Center to allow a rezone of 19.44 acres of Business Park Office (BPO) and 24.25 acres of Commercial (C) to Light Industrial (LI). The applicant also proposes to divide the site's 55.86 acres into 8 parcels. The applicant also proposes to construct a 550,000 square foot rooftop solar panel system on the proposed industrial building (Airport Compatibility Zone C1 of the March Air Reserve Base/Inland Port Airport Influence Area).

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

APPLICATION FOR MAJOR LAND USE ACTION REVIEW

ALUC STAFF ONLY

ALUC Case Number: ZAP1544MA22 Date Submitted: 9/14/22

AIA: March Zone: B1-APZ-II/C1 Public Hearing ☑ Staff Review ☐

Applicant

Applicant Full Name: PR Partners, LLC

Applicant Address: 11601 Wilshire Blvd. #2110. Los Angeles, CA 90025

Phone: (310) 393-4141 **Email:** mtb@pdpllc.net

Representative/ Property Owner Contact Information

Representative: Lars Andersen **Email:** lars@pdpsjc.net

Phone: (949) 481-0463 E. 111

Address: 30220 Rancho Viejo Road, B. San Juan Capistrano, CA 92675

Property Owner: PR Partners, LLC **Email:** mtb@pdpllc.net

Phone: (310) 393-4141

Address: 11601 Wilshire Blvd. #2110. Los Angeles, CA 90025

Local Jurisdiction Agency

Agency Name: City of Perris Phone: (951) 943-5003

Staff Contact: Kenneth Phung **Email:** kphung@cityofperris.org

Address: 135 N. D Street. Perris, CA 92570 : :

Local Agency Case No.: PLN1900012 (SPA), PLN19-05287 (ZC), DPR19-00012 (DPR)

Project Location

Street Address: SWC of Perris Blvd and Ramona Expressway Gross Parcel Size.: 16

Assessor's Parcel No.: 303-060-020

Solar

Is the project proposing solar Panels? Yes ☐ No ☑ If yes, please provide solar glare study. (only if in Zone C or higher)

Data

Site Elevation:(above mean sea level) 1,464 feet AMSL

Height of Building or structures: 53'

What type of drainage basins are being proposed and the square footage: Sq Ft of vegetative Swale area.

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, County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, CA 92501, Phone: 951-955-5132 Fax: 951-955-5177 Website: www.rcaluc.org

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM:	3.2
HEARING DATE:	December 15, 2022
CASE NUMBER:	ZAP1547MA22 – Industrial Realty, LLC (Representative: T&B Planning, Inc.)
APPROVING JURISDICTION:	County of Riverside
JURISDICTION CASE NO:	PPT220026 (Plot Plan)
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:	Zones C2
Noise Levels:	Below 60 CNEL contour
MAJOR ISSUES:	None

RECOMMENDATION: Staff recommends that the Commission find the proposed Plot Plan CONSISTENT with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to the conditions included herein.

PROJECT DESCRIPTION: A proposal to construct a 100,924 square foot industrial building with mezzanines on 4.56 acres.

PROJECT LOCATION: The site is located easterly of Patterson Avenue, westerly of Harvill Avenue, and southerly of Cajalco Road, approximately 10,688 feet southwesterly of the southerly 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 Zone C2, where Zone C2 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 ALUCP, 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 100,924 square foot industrial building, which includes 93,924 square feet of manufacturing area, 3,500 square feet of office area, and 3,500 square feet of second floor office mezzanines, accommodating a total occupancy of 505 people, resulting in an average intensity of 111 people per acre, which is consistent with 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 (76 standard vehicles), the total occupancy would be estimated at 114 people for an average intensity of 25 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 40,060 square feet of manufacturing area, 3,500 square feet of office area, and 3,500 square feet of second floor office mezzanines, resulting in a single acre occupancy of 235 people which is consistent with the Compatibility Zone C2 single acre criterion of 500.

Prohibited and Discouraged Uses: The applicant does not propose any uses prohibited or discouraged in Compatibility Zones C2 (children's schools, day care centers, hospitals, nursing homes, libraries, places of assembly, highly noise-sensitive outdoor nonresidential uses and hazards to flight).

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

Part 77: The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level (AMSL). At a distance of approximately 10,688 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 1,595 feet AMSL. The site's finished floor elevation is 1,517 feet AMSL and proposed building height is 50 feet, resulting in a top point elevation of 1,567 feet AMSL. Therefore, review of the building for height/elevation reasons by the FAA Obstruction Evaluation Service (FAAOES) was not required.

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

Hazards to Flight: 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 10,688 feet from the runway, and therefore would not be subject to the above requirement.

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) 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) 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 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.

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.

6. The project has been evaluated to construct a 100,924 square foot manufacturing building. 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. 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.

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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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

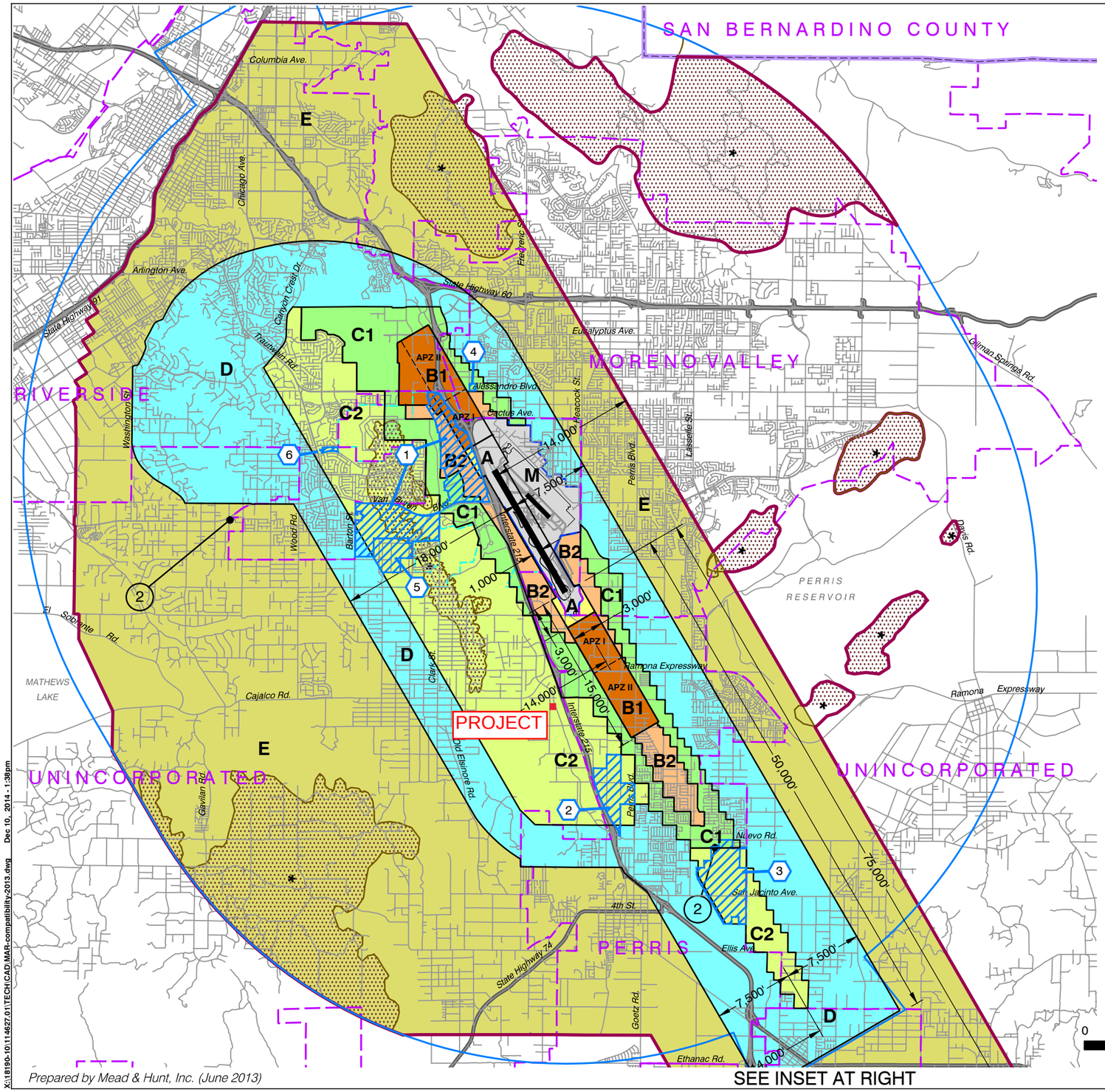
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



LEGEND

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M
- High Terrain Zone
- FAR Part 77 Military Outer Horizontal Surface Limits
- FAR Part 77 Notification Area

Boundary Lines

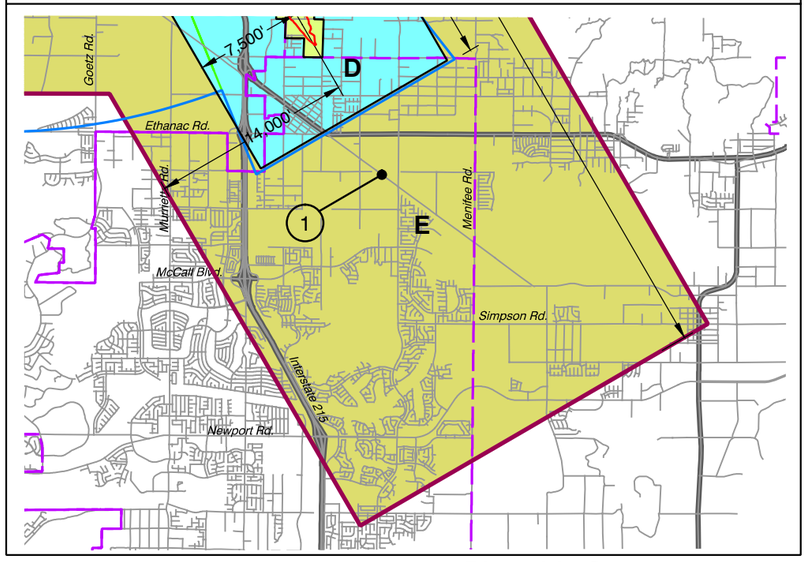
- March Air Reserve Base / Air Force Property
- March Joint Powers Authority Property Line
- County Boundary
- City Limits
- Site-Specific Exceptions (existing local agency commitments to development projects)

1. March JPA: March Business Center/Meridian
2. Perris: Harvest Landing
3. Perris: Park West
4. Moreno Valley: Affordable Housing
5. March JPA: Ben Clark Training Center
6. Riverside: Ridge Crest Subdivision

(1) Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.

(2) Point at which departing aircraft typically reach 3,000 feet above runway end.

INSET



Riverside County
Airport Land Use Commission

March Air Reserve Base / Inland Port Airport
Land Use Compatibility Plan

(Adopted November 13, 2014)

Note:
All dimensions are measured from runway ends and centerlines.

N

0 2 4 MILES

Base map source: County of Riverside 2013

Prepared by Mead & Hunt, Inc. (June 2013)

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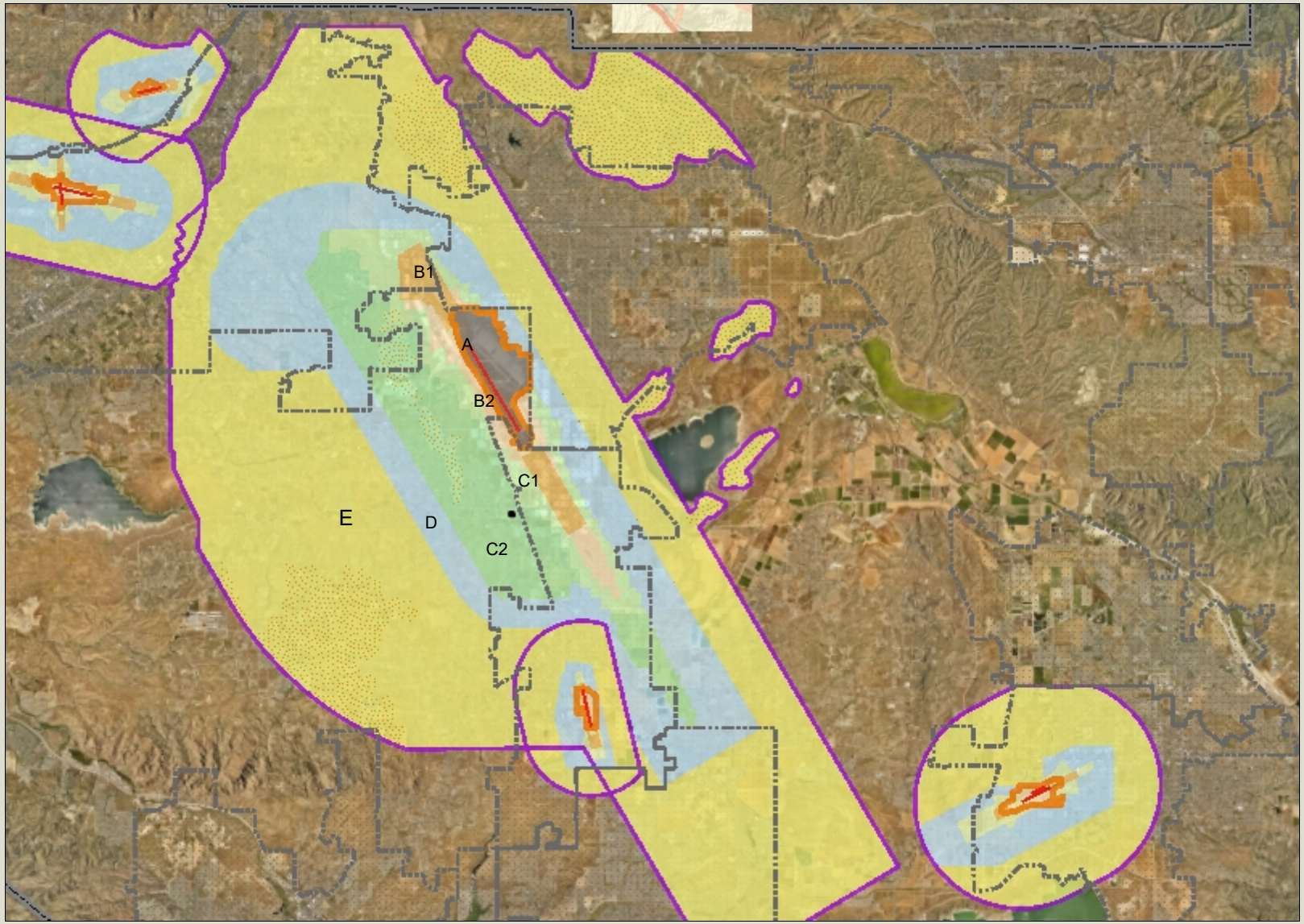
Map MA-1

Compatibility Map

March Air Reserve Base / Inland Port Airport

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 24,629 49,257 Feet

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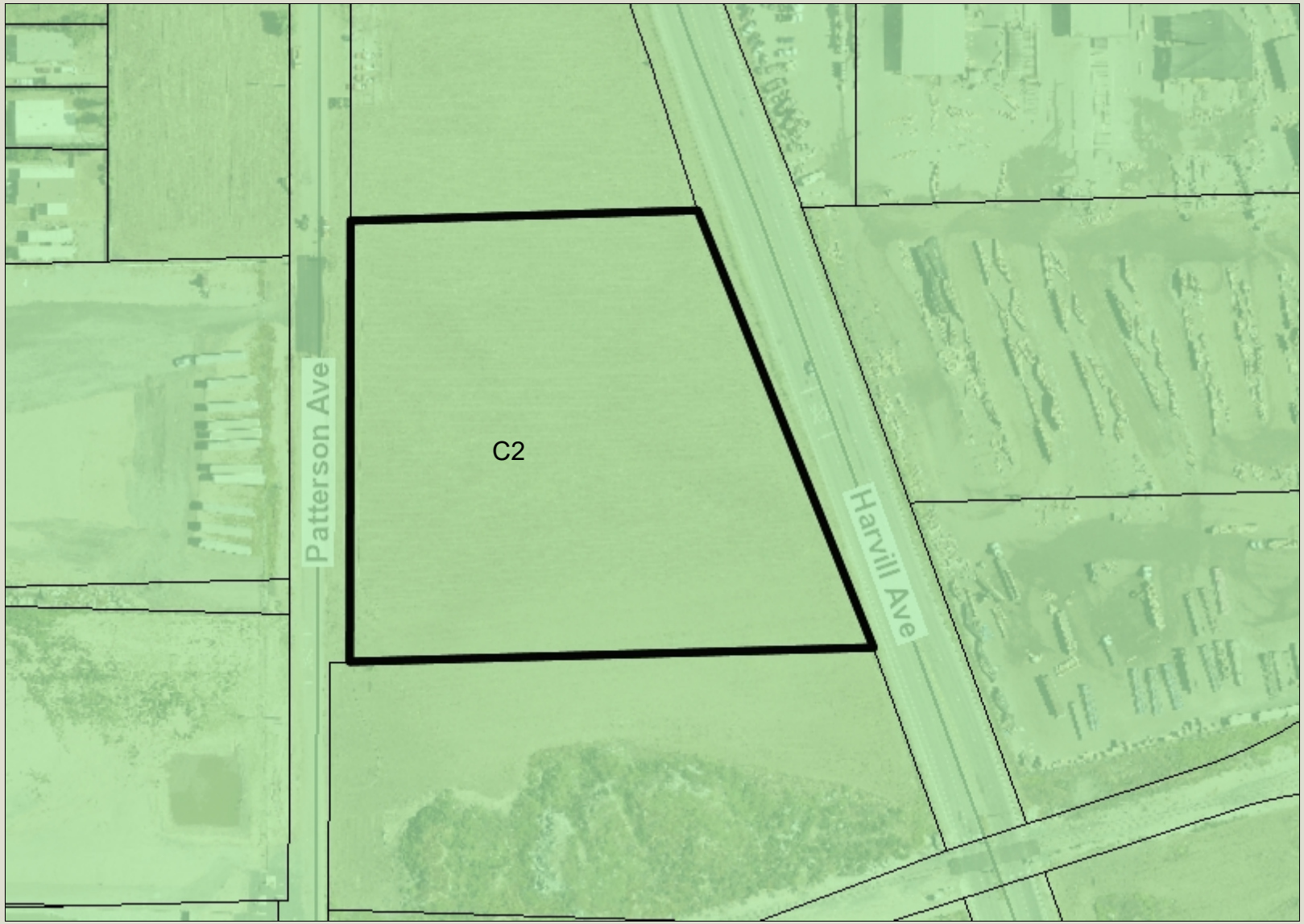
Notes

Map My County Map



Legend

- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5

0 192 385 Feet

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Notes

Map My County Map

Legend

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

0 192 385 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

0 6,157 12,314 Feet

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Notes

Map My County Map

Legend

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

0 1,539 3,079 Feet

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Notes

Map My County Map

Legend

City Areas

World Street Map

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0 12,314 24,629 Feet

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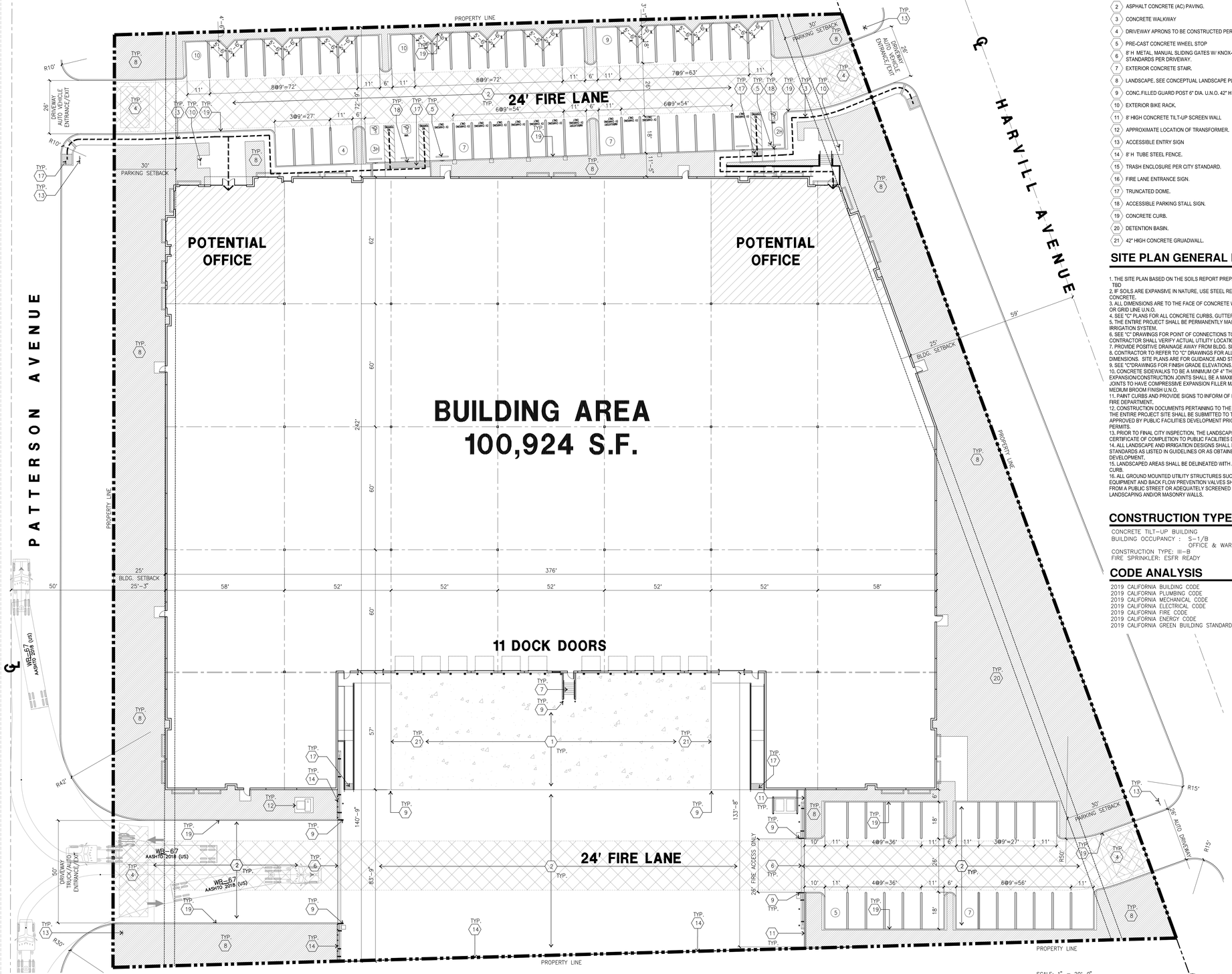

OVERALL SITE PLAN (A)
scale: 1" = 20'-0"

SCALE: 1" = 20'-0"
0 20' 40' 60'

PLAN NORTH
TRUE NORTH

VICINITY MAP

SITE LEGEND

- CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- ASPHALT CONCRETE PAVING SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL (9' X 18')
- DISABLED PARKING STALL (9' X 18') + 5' W/ ACCESSIBLE AISLE
- DISABLED PARKING (VAN) STALL (12' X 18') + 5' W/ ACCESSIBLE AISLE
- LANDSCAPED AREA
- PATH OF TRAVEL
- 20' FIRE WIDE FIRELANE
- EXISTING PUBLIC FIRE HYDRANT
- PRIVATE FIRE HYDRANT- APPROXIMATE LOCATION

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING.
3. CONCRETE WALKWAY
4. DRIVEWAY APRONS TO BE CONSTRUCTED PER "L" DRAWINGS.
5. PRE-CAST CONCRETE WHEEL STOP
6. 8' H METAL, MANUAL SLIDING GATES W/ KNOX-PAD LOCK PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
7. EXTERIOR CONCRETE STAIR.
8. LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.
9. CONC.FILLED GUARD POST 6" DIA. U.N.O. 42" H
10. EXTERIOR BIKE RACK.
11. 8' HIGH CONCRETE TILT-UP SCREEN WALL
12. APPROXIMATE LOCATION OF TRANSFORMER.
13. ACCESSIBLE ENTRY SIGN
14. 8' H TUBE STEEL FENCE.
15. TRASH ENCLOSURE PER CITY STANDARD.
16. FIRE LANE ENTRANCE SIGN.
17. TRUNCATED DOME.
18. ACCESSIBLE PARKING STALL SIGN.
19. CONCRETE CURB.
20. DETENTION BASIN.
21. 42" HIGH CONCRETE GRUADWALL.

SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY: TBD
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE.
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH U.N.O.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PUBLIC FACILITIES DEVELOPMENT.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC FACILITIES DEVELOPMENT.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB.
16. ALL GROUND MOUNTED UTILITY STRUCTURES SUCH AS TRANSFORMERS, HVAC EQUIPMENT AND BACK FLOW PREVENTION VALVES SHALL BE LOCATED OUT OF VIEW FROM A PUBLIC STREET OR ADEQUATELY SCREENED THROUGH THE USE OF LANDSCAPING AND/OR MASONRY WALLS.

CONSTRUCTION TYPE

CONCRETE TILT-UP BUILDING
BUILDING OCCUPANCY : S-1/B
OFFICE & WAREHOUSE
CONSTRUCTION TYPE: III-B
FIRE SPRINKLER: ESFR READY

CODE ANALYSIS

2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS

PROPERTY OWNER

LDC INDUSTRIAL REALTY
555 N EL CAMNO REAL, #A456
SAN CLEMENTE,CA 92672
LARRY D. COCHRUN
TEL: 949-226-4601
EMAIL: LCOCHRUN@LDCINDUSTRIAL.COM

ADDRESS OF THE PROPERTY

PATTERSON AVENUE AND HARVILL AVENUE,
RIVERSIDE COUNTY, CA

ASSESSOR'S PARCEL NUMBER

317-160-037

LEGAL DESCRIPTION

SEE CIVIL

ZONING

GENERAL PLAN LAND USE DESIGNATION:
LIGHT INDUSTRIAL (LI)
ZONING CLASSIFICATION:
MANUFACTURING-SERVICE COMMERCIAL (M-SC)

APPLICANT

HPA, INC.
18831 BARDEEN AVE SUITE 100
IRVINE CA 92612
TEL: 949-862-2138
ATTN: MATTHEW LEE

APPLICANT'S REPRESENTATIVE

HPA, INC.
18831 BARDEEN AVE SUITE 100
IRVINE CA 92612
TEL: 949-862-2138
ATTN: MATTHEW LEE

PROJECT DATA

		BLDG.1
SITE AREA		
In s.f.		198,624 s.f.
In acres		4.56 ac
BUILDING AREA		
Office 1st Floor		3,500 s.f.
Office 2nd Floor		3,500 s.f.
Warehouse		93,924 s.f.
TOTAL		100,924 s.f.
COVERAGE		50.8%
FAR		0.489
AUTO PARKING REQUIRED		
Office:	1/250 s.f.	28 stalls
Whse:	1/2000 s.f.	47 stalls
TOTAL		75 stalls
AUTO PARKING PROVIDED		
Standard (9' x 18')		60 stalls
Standard Accessible (9' x 18')		1 stalls
Van Accessible (12' x 18')		2 stalls
Standard EV Accessible (9' x 18')		1 stalls
Van EV Accessible (12' x 18')		1 stalls
Ambulatory EV (11' x 18')		2 stalls
Regular EV (9' x 18')		9 stalls
TOTAL		76 stalls
CLEAR HEIGHT		32'
MAXIMUM FLOOR AREA RATIO		
FAR - 0.25-0.60		
LANDSCAPE REQUIREMENT		
Percentage - 10%		
LANDSCAPE PROVIDED		
In percentage -		16.7%
In s.f. -		33,092
SETBACKS		
Building		Parking/Landscape
Front -25', 50' if abuts R zone		20'
Side/Rear - 0'		0

PROJECT SITE IS LOCATED WITHIN A STREET SPECIFIC PLAN NO. 100

OFFICIAL USE ONLY

HPA architecture

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

PLOT PLAN NO.
PPT220026

Owner:

LDC INDUSTRIAL REALTY, LLC
555 N. El Camino Real #A456
San Clemente, CA 92672

Tel: (949) 226-4601
Website: LDCindustrial.com

Project:

PATTERSON AVE. & HARVILL AVE.

Patterson Ave. & Harvill Ave.
Riverside County, CA

Consultants:

Civil:	KIMLEY HORN
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	HUNTER
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL SITE PLAN

Project Number:	21032
Drawn by:	ML
Date:	PAR CAT II 1/12/2022
Revision:	

Sheet:

DAB-A1.1

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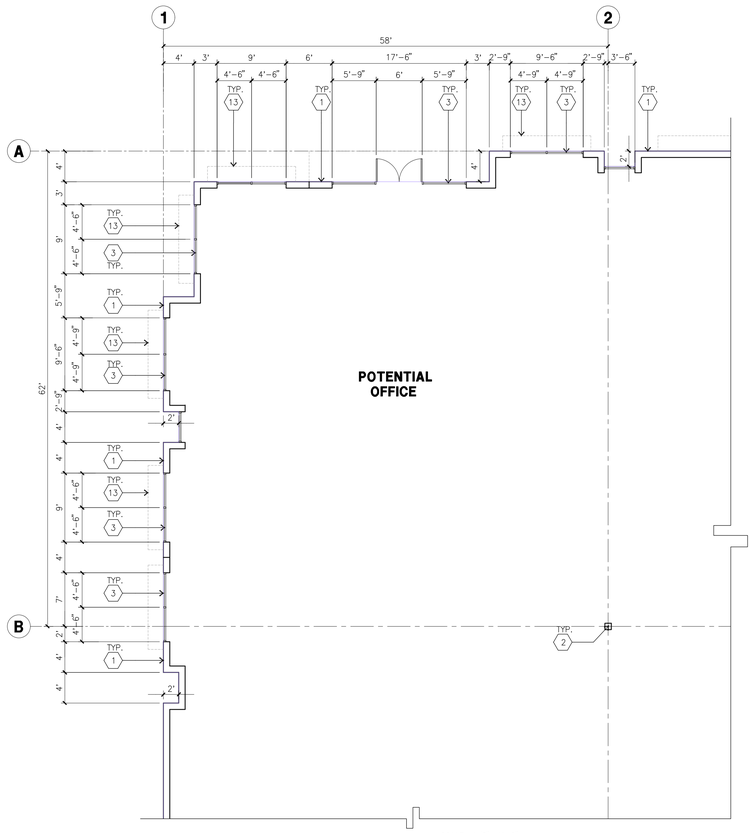
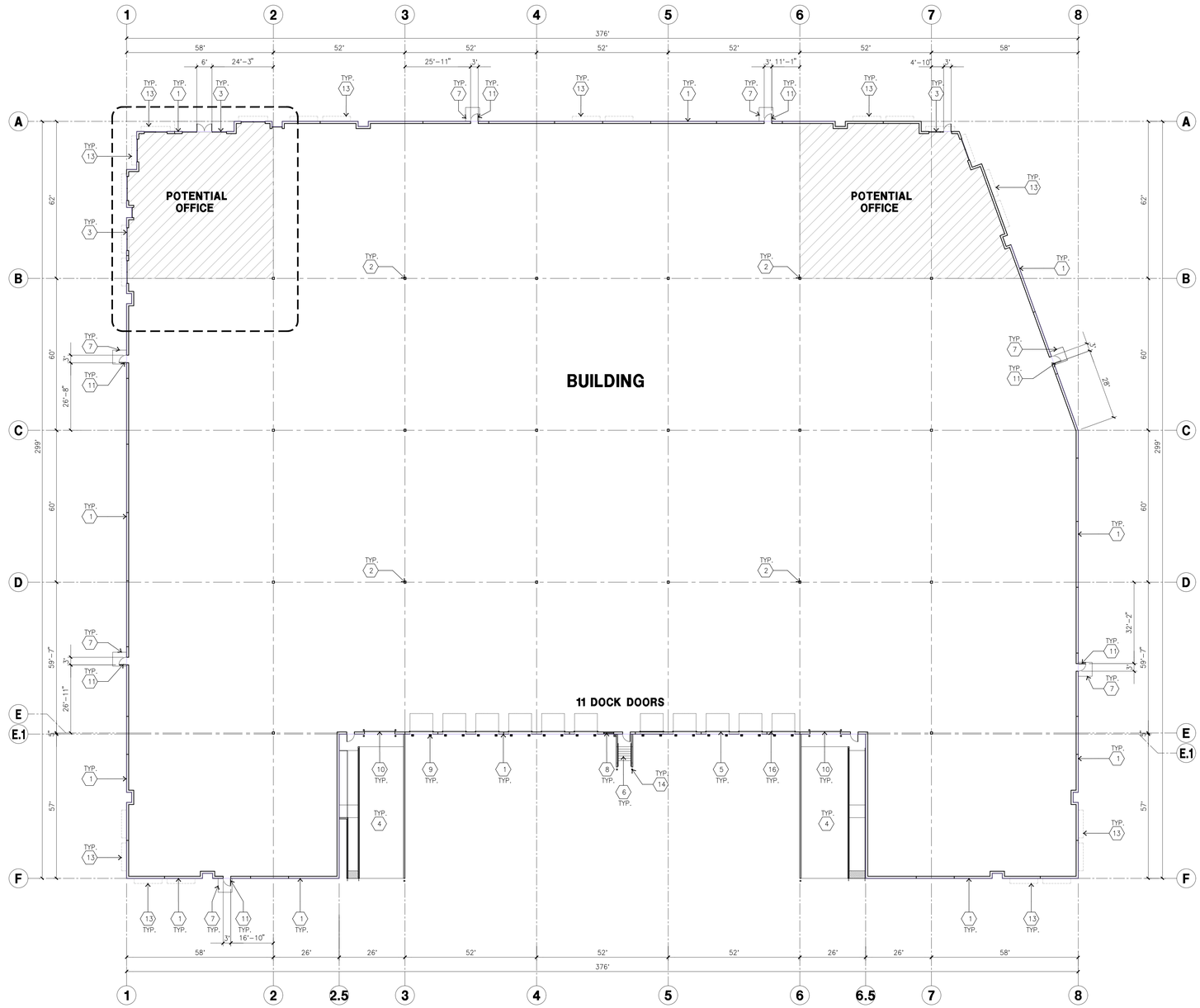


ENLARGED FLOOR PLAN B
scale: 1/8"=1'-0"

SCALE: 1/8"=1'-0"
0 8' 16' 24'
PLAN NORTH TRUE NORTH



OVERALL FLOOR PLAN A
scale: 1"=20'-0"

SCALE: 1"=20'-0"
0 20' 40' 60'
PLAN NORTH TRUE NORTH

KETNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP,
5. 9'-0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER
10. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE.
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR.
12. SOFFIT LINE ABOVE
13. TUBE STEEL CANOPY ABOVE.
14. CONC. FILLED GUARD POST. 6" DIA. U.N.O., 42"H.
15. INTERIOR DOWNSPOUT WITH OVERFLOW SCUPPER,
16. Z GUARD

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.

B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.

C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.

D. NOT USED

E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.

F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS. SEE "S" DRAWINGS FOR POUR STRIP LOCATION.

G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.

H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.

I. FOR DOOR TYPES AND SIZES, SEE DETAIL SHEET AD.4. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.

J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.

K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE.

L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.

M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.

N. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1

O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW, SEE A/A4.1 OFFICE SECTION.

HPA architecture

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Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	HUNTER
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL FLOOR PLAN

Project Number:	21032
Drawn by:	ML
Date:	PAR CAT II 1/12/2022
Revision:	

Sheet:

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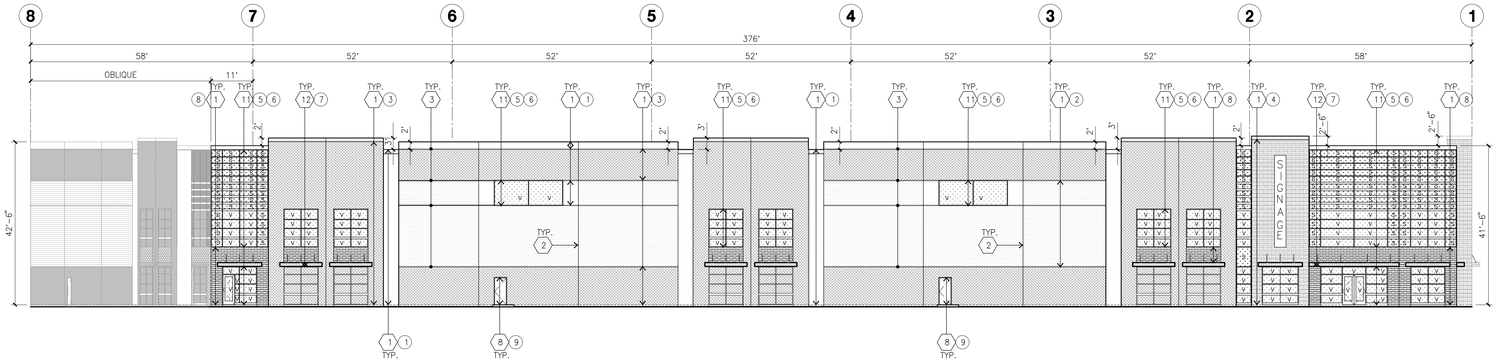
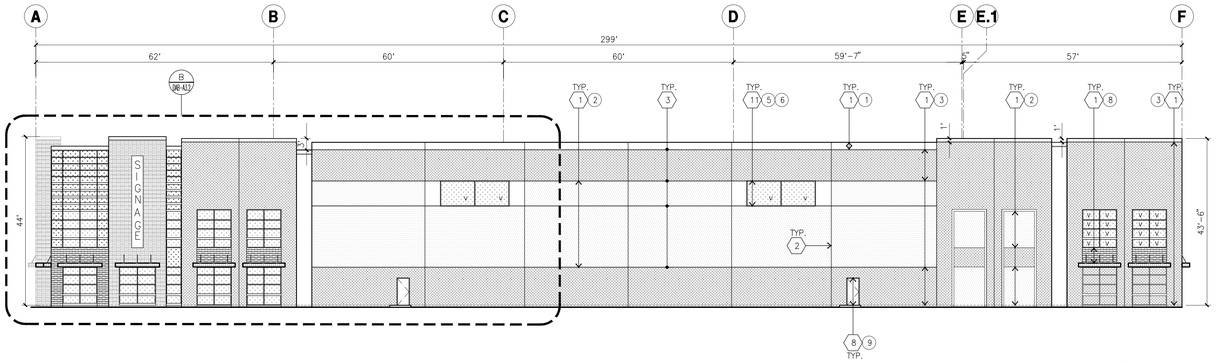


NORTH ELEVATION (A)
scale: 1/16" = 1'-0"



WEST ELEVATION (B)
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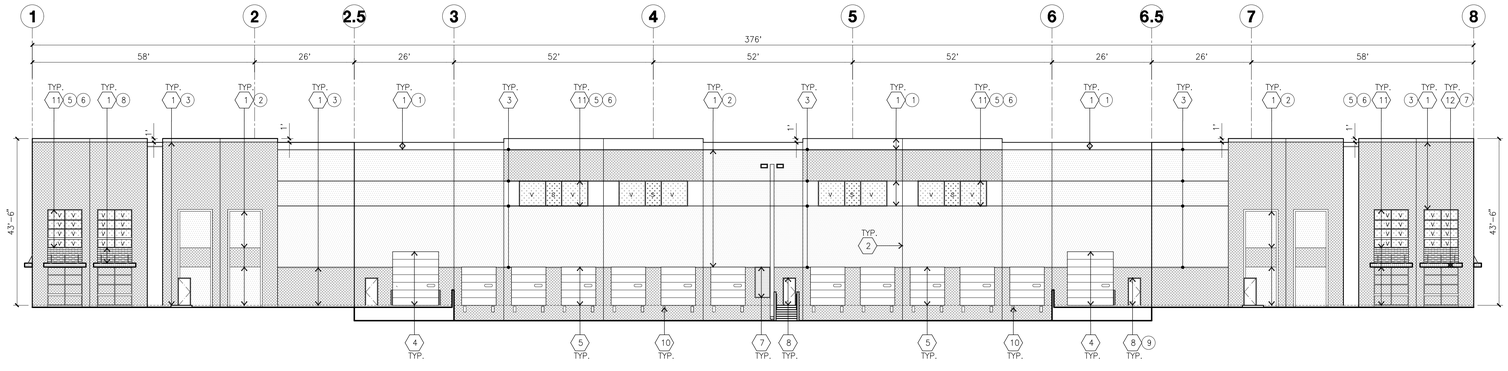
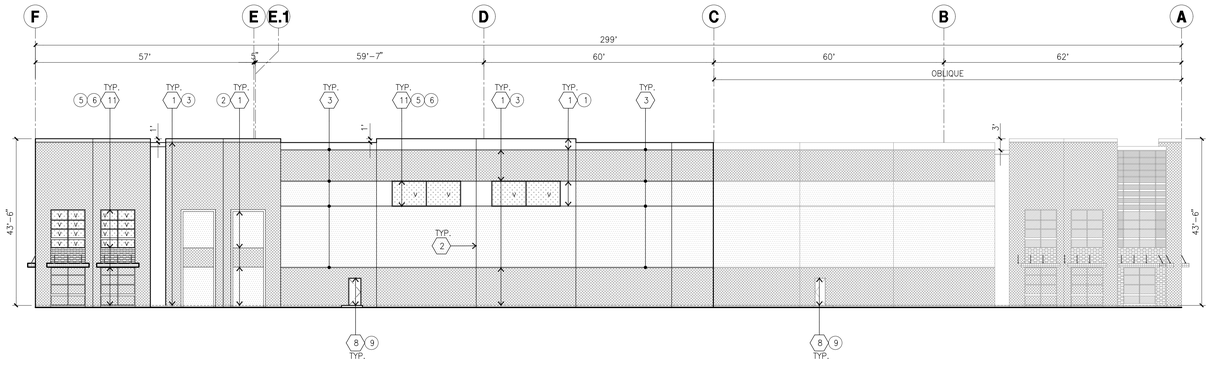


SOUTH ELEVATION (C)
scale: 1/16" = 1'-0"



EAST ELEVATION (D)
scale: 1/16" = 1'-0"

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.
2. PANEL JOINT.
3. 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.
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.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPER
10. DOCK BUMPER
11. 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

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
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.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
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 7604 SMOKEY BLUE
5	MULLIONS	COLOR	CLEAR ANODIZED MULLIONS
6	GLAZING	COLOR	GREY TINT GLAZING
7	METAL CANOPY	PAINT BRAND	SHERWIN WILLIAMS ACRYLIC LATEX SYSTEMS HIGH GLOSS/HIGH PERFORMANCE SW7663 MONORAIL SILVER
8	WOOD SIDING	CEDAR	NICHIHA VINATGE WOOD FIBER CEMENT - CEDAR
9	DOORS	PAINT BRAND	MATCH TO ADJACENT BUILDING COLOR

PAINT AND MATERIAL LEGEND

1 2 3 4 7 8

GLAZING LEGEND

SPANDREL GLASS VISION GLASS

ALL GLAZING TO BE TEMPERED GLASS.

HPA architecture

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

PLOT PLAN NO.
PPT220026

Owner:

LDC INDUSTRIAL REALTY, LLC
555 N. El Camino Real #A456
San Clemente, CA 92672

Tel: (949) 226-4601
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Project:

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Patterson Ave. & Harvill Ave.
Riverside County, CA

Consultants:

Civil:	KIMLEY HORN
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	HUNTER
Fire Protection:	-
Soils Engineer:	-

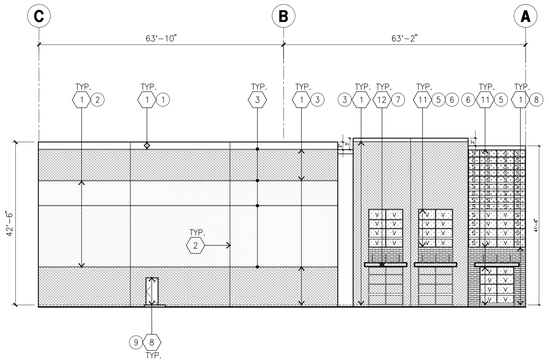
Title: ELEVATIONS

Project Number: 21032
Drawn by: ML
Date: PAR CAT II 1/12/2022
Revision:

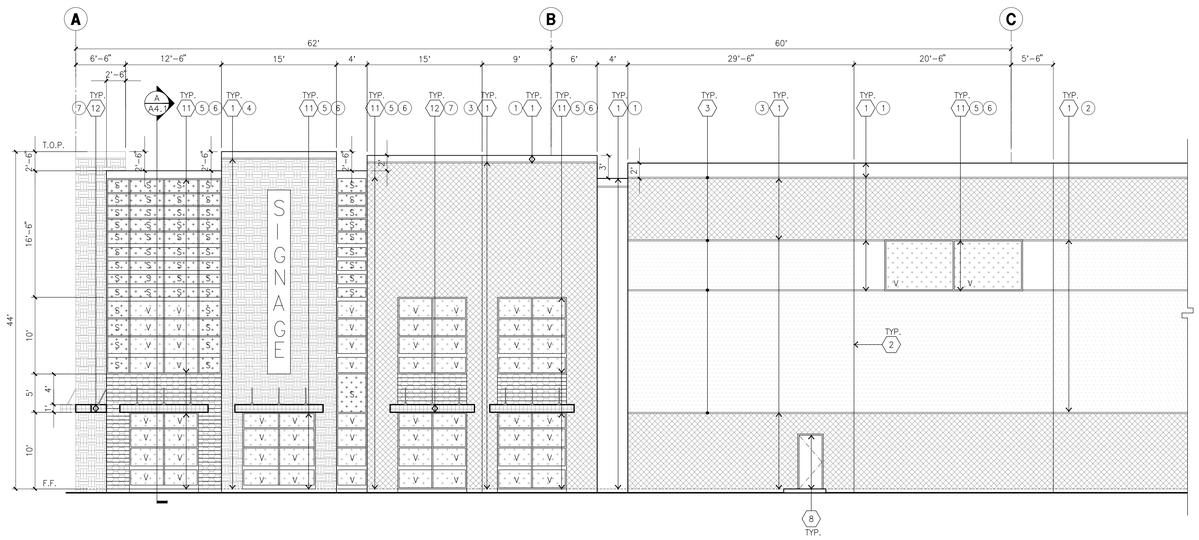
Sheet:

DAB-A3.1

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT



NORTH EAST ELEVATION (A)
scale: 1/16" = 1'-0"



ENLARGED WEST ELEVATION (B)
scale: 1/8" = 1'-0"

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.
2. PANEL JOINT.
3. 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.
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.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPER
10. DOCK BUMPER
11. 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

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
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.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
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 7604 SMOKEY BLUE
5	MULLIONS	COLOR	CLEAR ANODIZED MULLIONS
6	GLAZING	COLOR	GREY TINT GLAZING
7	METAL CANOPY	PAINT BRAND	SHERWIN WILLIAMS ACRYLIC LATEX SYSTEMS HIGH GLOSS/HIGH PERFORMANCE SW7663 MONORAIL SILVER
8	WOOD SIDING	CEDAR	NICHIHA VINATGE WOOD FIBER CEMENT – CEDAR
9	DOORS	PAINT BRAND	MATCH TO ADJACENT BUILDING COLOR

PAINT AND MATERIAL LEGEND

1 2 3 4 7 8

GLAZING LEGEND

SPANDREL GLASS VISION GLASS

ALL GLAZING TO BE TEMPERED GLASS.

HPA architecture

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

PLOT PLAN NO.
PPT220026

Owner:

LDC INDUSTRIAL REALTY, LLC
555 N. El Camino Real #A456
San Clemente, CA 92672

Tel: (949) 226-4601
Website: LDCindustrial.com

Project:

PATTERSON AVE. & HARVILL AVE.

Patterson Ave. & Harvill Ave.
Riverside County, CA

Consultants:

Civil:	KIMLEY HORN
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	HUNTER
Fire Protection:	-
Soils Engineer:	-

Title: ELVATIONS

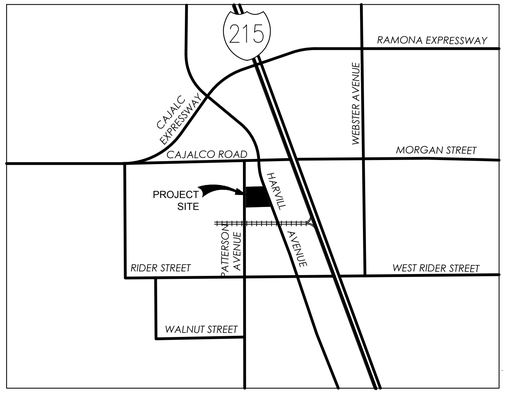
Project Number: 21032
Drawn by: ML
Date: PAR CAT II 1/12/2022
Revision:

Sheet:

DAB-A3.2

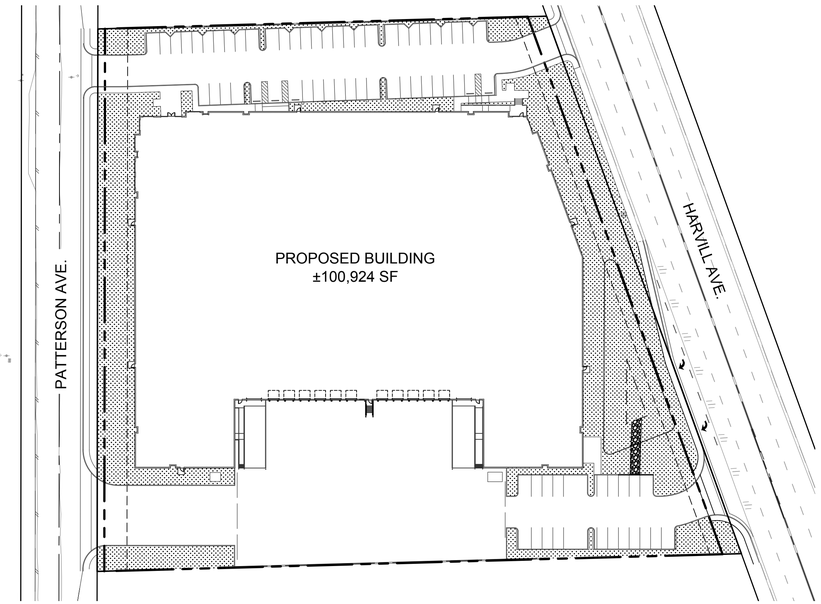
IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

PLOT PLAN
PRELIMINARY GRADING PLAN - PPT 220026
HARVILL LDC INDUSTRIAL REALTY



VICINITY MAP
NOT TO SCALE

NORTH



LEGEND

	PROPERTY LINE
S S	EXISTING SANITARY SEWER LINE
S S	PROPOSED SANITARY SEWER LINE
W W	EXISTING WATER LINE
W W	PROPOSED WATER LINE
FW FW	PROPOSED FIRE LINE
FW FW	EXISTING FIRE LINE
	PROPOSED FIRE HYDRANT
	PROPOSED FIRE BACKFLOW PREVENTOR
SD SD	PROPOSED STORM DRAIN LINE
SD SD	EXISTING STORM DRAIN LINE
	PROPOSED RETAINING WALL
	CENTERLINE
XXXX	EXISTING CONTOUR
XXXX	PROPOSED CONTOUR
	FLOW LINE
SD	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN GRATED INLET
	CONCRETE PAVEMENT

ABBREVIATIONS:

BEG	BEGIN
BOT	BOTTOM
CI	CURB INLET
C&G	CURB AND GUTTER
CO	CLEANOUT
CY	CUBIC YARDS
EA	EACH
ESMT	EASEMENT
EX	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GROUND
FL	FLOW LINE
FS	FINISHED SURFACE
GI	GRATE INLET
HMA	HOT MIX ASPHALT
INV	INVERT
LF	LINEAR FEET
ME	MATCH EXISTING
MEP	MECHANICAL ELECTRICAL PLUMBING
MH	MANHOLE
MIN	MINIMUM
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PCC	PORTLAND CEMENT CONCRETE
P/L	PROPERTY LINE
PROP	PROPOSED
PT	POINT
R/W	RIGHT-OF-WAY
STD	STANDARD
TC	TOP OF CURB
TG	TOP OF GRATE
TP	TOP OF PAVEMENT
TW	TOP OF WALL
TYP	TYPICAL

OWNER
HARVILL LLC
ONE LINCOLN CENTRE
18W140 BUTTERFIELD ROAD, SUITE 750
OAKBROOK TERRACE, IL 60181
(630)-576-1105

DEVELOPER/APPLICANT
LDC INDUSTRIAL REALITY
555 N EL CAIMNO REAL, #A456
SAN CLEMENTE, CA 92672
LARRY D. COCHRUN
(949) 226 - 4601

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
401 B STREET, SUITE 600
SAN DIEGO, CA 92101
TEL (619) 272 - 7118
CONTACT: JOSHUA BIELIK

ARCHITECT
HPA, INC
18831 BARDEEN AVENUE, STE. #100
IRVINE, CA 92612
(949) 863 - 1770

GEOTECHNICAL ENGINEER
SOUTHERN CALIFORNIA GEOTECHNICAL
22885 SAVI RANCH PKWY #E
YORBA LINDA, CA, 92887
(714) 685 - 1115
CONTACT: ROBERT TRAZO, GE

ASSESSORS PARCEL NUMBER
317-160-037

UTILITY PURVEYORS
CABLE: SPECTRUM (833) 267-6094
TELEPHONE: SPECTRUM (833) 267-6094
ELECTRIC: SOUTHERN CALIFORNIA EDISON COMPANY (800) 655-4555
GAS: SOUTHERN CALIFORNIA GAS COMPANY: (800) 427-2200
WATER: EASTERN MUNICIPAL WATER DISTRICT (800) 426-3693
SEWER: EASTERN MUNICIPAL WATER DISTRICT (800) 426-3693

PROPERTY ADDRESS
PATTERSON AVENUE AND HARVILL AVENUE
RIVERSIDE COUNTY, CA

ZONING AND LAND USE
GENERAL PLAN LAND USE DESIGNATION: LIGHT INDUSTRIAL
ZONING CLASSIFICATION: MANUFACTURING-SERVICE COMMERCIAL (M-SC)
SPECIFIC LAND USE PLAN: "A" STREET SP100

FEMA FLOOD ZONE DESIGNATION
BY GRAPHIC PLOTTING ONLY, THIS PROPERTY APPEARS TO BE ALL WITHIN THE UNHATCHED AREA OF ZONE X OF THE FLOOD INSURANCE RATE MAP, MAP NUMBER 06065C1430H, DATED AUGUST 18, 2014
THE DESIGNATION OF ZONE X INDICATES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

TOPOGRAPHY SOURCE
FIELD SURVEY PERFORMED BY KIMLEY-HORN CONSULTANTS ON MARCH 7, 2022.

EARTHWORK
CUT: 15,100 C.Y.
FILL: 10,300 C.Y.
NET: 4,800 C.Y. (CUT)

PROJECT DATA

SITE AREA:	4.79 AC
NET AREA:	4.79 AC
BUILDING AREA:	100,924 SF
SITE:	"A" ST. SPECIFIC PLAN NO. 100

LEGAL DESCRIPTION
FILE NO: NCS-1088580-ONT1

THE LAND REFERRED TO HEREIN IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 3 AS SHOWN BY PARCEL MAP 6372 ON FILE IN BOOK 17 PAGE 42 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION OF LAND CONVEYED TO THE COUNTY OF RIVERSIDE IN DECLARATION OF DEDICATION RECORDED MARCH 18, 1992 AS INSTRUMENT NO. 92-94009 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM THAT PORTION OF LAND CONVEYED TO THE REDEVELOPMENT AGENCY FOR THE COUNTY OF RIVERSIDE, A PUBLIC BODY, CORPORATE AND POLITIC, ORGANIZED AND EXISTING UNDER, AND BY VIRTUE OF THE STATE OF CALIFORNIA IN GRANT DEED RECORDED JUNE 14, 2002 AS INSTRUMENT NO. 02-329451 OF OFFICAIL RECORDS.

BENCHMARK
NGS BENCHMARK IS DESIGNATED AS DX5442 BEING A STANDARD 3-1/4 INCH ALUMINUM DISK SET FLUSH IN TOP OF CURB, LOCATED 1300 FEET WEST OF ATSF RAILROAD ALONG RIDER STREET, ON TOP OF NORTH CURB FACE OF RIDER STREET 28 FEET NORTH OF RIDER STREET.

ELEV: 1515.12 FEET NAVD88

SHEET INDEX

COVER SHEET	1
PRELIMINARY GRADING PLAN	2
OFFSITE UTILITY PLAN	3
DETAILS	4
TRUCK STACKING PLAN	5

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NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

The private engineer signing these plans is responsible for assuring the accuracy and acceptability of the design hereon. In the event of discrepancies arising after county approval or during construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the county.

MARK	BY	DATE	REVISIONS	APPR.	DATE
KHA	JB	9/14/22	PPT SUBMITTAL 2		

ENGINEER | COUNTY

SEAL—ENGINEER

ENGINEERING COMPANY

PREPARED BY:
R.C.E. NO.
DATE

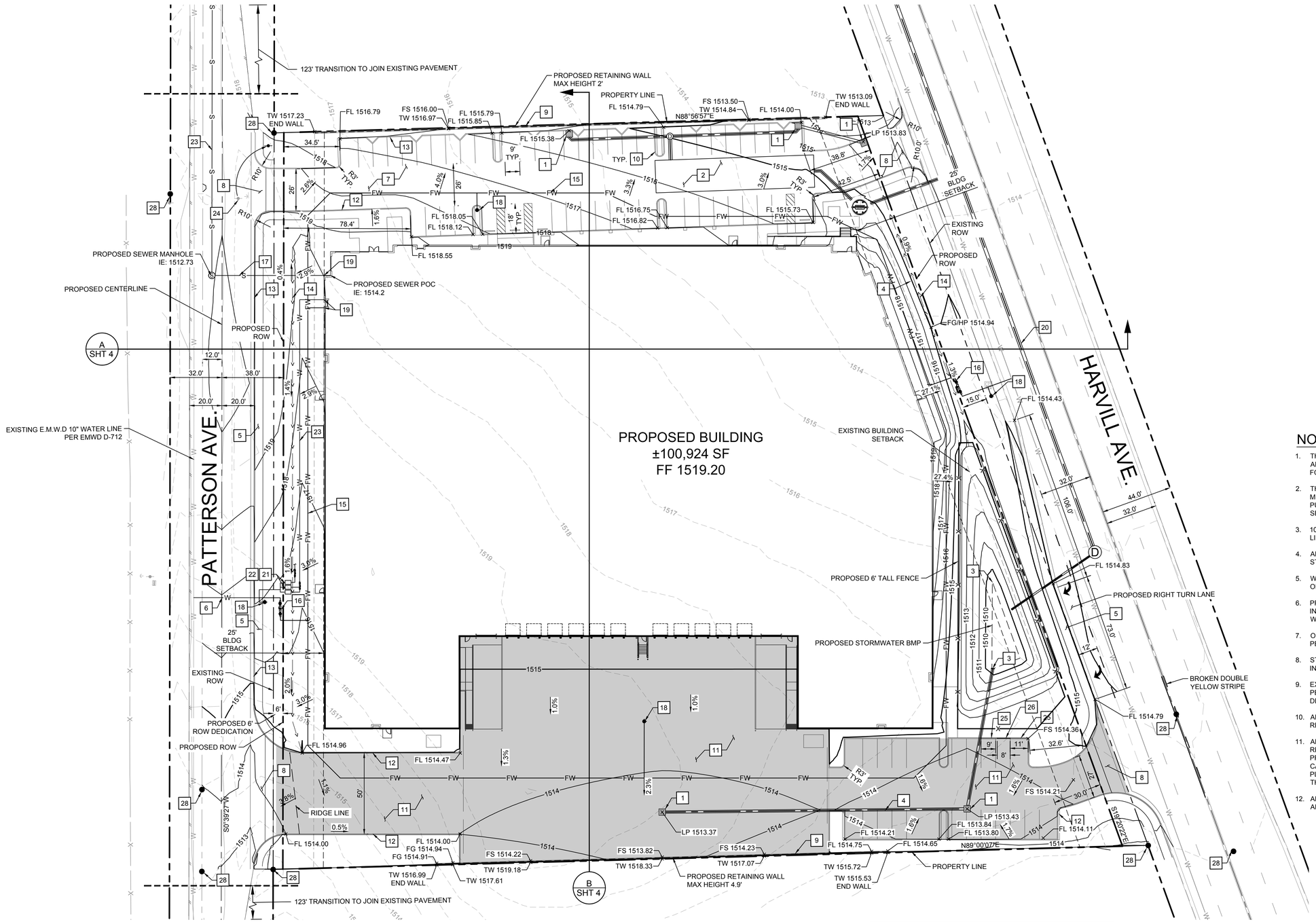
BENCHMARK:

SCALE:
H:_____ V:_____

LDC INDUSTRIAL REALTY, LLC
PLOT PLAN
PATTERSON AND HARVILL
PPT 220026
COVER SHEET

SHEET NO. 1
1 OF 5 SHTS

FOR:
W.O.
COUNTY FILE NO.



CONSTRUCTION NOTES

1. PROPOSED GRATE INLET
2. UNDERGROUND DETENTION
3. PROPOSED BMP HEADWALL
4. PROPOSED 18" HDPE STORM LINE
5. CONSTRUCT 4" P.C.C. SIDEWALK
6. PROPOSED 3" WATER LINE
7. 3" A.C. DRIVE AISLE AND PARKING AREA
8. CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD. 207A.
9. PROPOSED RETAINING WALL.
10. PROPOSED LANDSCAPE ISLAND.
11. CONSTRUCT 8" P.C.C. TRUCK COURT
12. CONSTRUCT 6" CURB ONLY (ONSITE)
13. CONSTRUCT 6" CURB AND GUTTER
14. PROPOSED EARTHEN SWALE
15. PROPOSED 10" FIRELINE
16. PROPOSED FIRE BACKFLOW PREVENTER
17. PROPOSED 6" PVC SEWER
18. PROPOSED FIRE HYDRANT
19. PROPOSED BUILDING POINT OF CONNECTION. CONTINUATION PER PLUMBING PLANS
20. PROPOSED 24" HDPE STORM LINE. LOCATION PER RIVERSIDE COUNTY STD. 817.
21. PROPOSED DOMESTIC METER AND BACKFLOW
22. PROPOESD IRRIGATION METER AND BACKFLOW
23. PROPOSED 8" PVC SEWER
24. EXISTING POWER POLE TO BE RELOCATED
25. TRANSITION FROM 6" CURB TO ROLLED CURB
26. ROLLED CURB
28. SURVEY MONUMENT TO BE PROTECTED IN PLACE. IF DISTURBED DURING CONSTRUCTION CONTRACTOR TO REPLACE AND RESET. CONSTRUCTION CORNER RECORD REQUIRED PRIOR TO START OF CONSTRUCTION.

NOTES:

1. THE PRIVATE WATER SYSTEM IS DESIGNED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND IS SHOWN ON THESE PLANS AS 'INFORMATION ONLY.' A SEPARATE PLUMBING PERMIT IS REQUIRED FOR CONSTRUCTION AND INSPECTION OF THE SYSTEM.
2. THE PRIVATE ON-SITE SEWER SYSTEM WITH WELDED JOINTS AND CLEANOUTS SHALL BE DESIGNED TO MEET THE STANDARDS OF THE CALIFORNIA PLUMBING CODE. PRIVATE MAINS WITH MANHOLES AND PUSH-ON JOINTS SHALL BE DESIGNED PER THE SEWER DESIGN GUIDE AND WILL MEET STATE SEPARATION REQUIREMENT.
3. 10' MINIMUM HORIZONTAL SEPARATION BETWEEN PROPOSED DOMESTIC WATER AND SANITARY SEWER LINES.
4. ALL WATER CROSSINGS SHOULD HAVE A MINIMUM CLEARANCE OF 12" FROM ANY SEWER OR STORMDRAIN CROSSING.
5. WATER AND FIRE MAINS SHALL BE INSTALLED WITH A MINIMUM 3' VERTICAL CLEARANCE FROM THE TOP OF FINISHED GRADE TO THE TOP OF THE PIPE.
6. PRIOR TO CONNECTING TO ANY EXISTING SEWER LATERAL, IT SHALL BE CLOSED CIRCUIT TELEVISION INSPECTED BY A CALIFORNIA LICENSED PLUMBING CONTRACTOR TO VERIFY LATERAL IS IN GOOD WORKING CONDITION AND FREE OF ALL DEBRIS.
7. ON-SITE ELECTRIC AND COMMUNICATION LINES SERVING THE SITE TO BE PROPOSED BY ELECTRICAL PER SEPARATE PERMIT.
8. STUB POINT OF CONNECTION 5' FROM BUILDING. REFER TO MEP PLANS PER SEPARATE PERMIT FOR INVERT ELEVATION AND CONTINUATION TO BUILDING.
9. EXCAVATION FOR UTILITY TRENCHES TO BE 2' BELOW DEEPEST UTILITY FLOW LINE/INVERT ELEVATION PER GEOTECHNICAL RECOMMENDATIONS. CONTRACTOR/DEVELOPER TO DETERMINE APPROPRIATE DEPTH OF TRENCH FOR SHALLOW UTILITIES ADJACENT TO DEEP UTILITIES.
10. ALL EXISTING UTILITIES SHOWN BASED ON AS-BUILT INFORMATION. CONTRACTOR TO COORDINATE REMOVAL OF ANY EXISTING WET UTILITIES FOUND DURING CONSTRUCTION.
11. ALL PLANS FOR PRIVATE FIRE SERVICE MAINS AND PRIVATE FIRE HYDRANTS ARE SHOWN FOR REFERENCE ONLY AND MUST BE SUBMITTED SEPARATELY FOR APPROVAL PRIOR TO INSTALLATION. ALL PRIVATE FIRE SYSTEMS WILL BE DEFINED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE; CALIFORNIA FIRE CODE; AND NFPA 24. PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES. PLANS SHALL BE SINGLE FIRE LINE DRAWINGS SHOWING ALL OF THE APPLICABLE REQUIREMENTS OF THE CODES SPECIFIED ABOVE.
12. ALL DRY UTILITIES SHOWN FOR REFERENCE ONLY AND MUST BE SUBMITTED SEPARATELY FOR APPROVAL PRIOR TO INSTALLATION.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

CAUTION!!!
EXISTING UTILITIES SHOWN ARE APPROXIMATE AND HORIZONTAL AND VERTICAL LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES.

PRIVATE ONSITE WATER AND SEWER ARE DESIGNED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND ARE SHOWN ON THE PLANS AS REFERENCE ONLY. A SEPARATE PERMIT IS REQUIRED FOR CONSTRUCTION AND INSPECTION OF THE SYSTEM.

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MARK	BY	DATE	REVISIONS	APPR.	DATE
KHA	JB	9/14/22	PPT SUBMITTAL 2		

ENGINEER | COUNTY

SEAL—ENGINEER

ENGINEERING COMPANY

PREPARED BY: R.C.E. NO. DATE

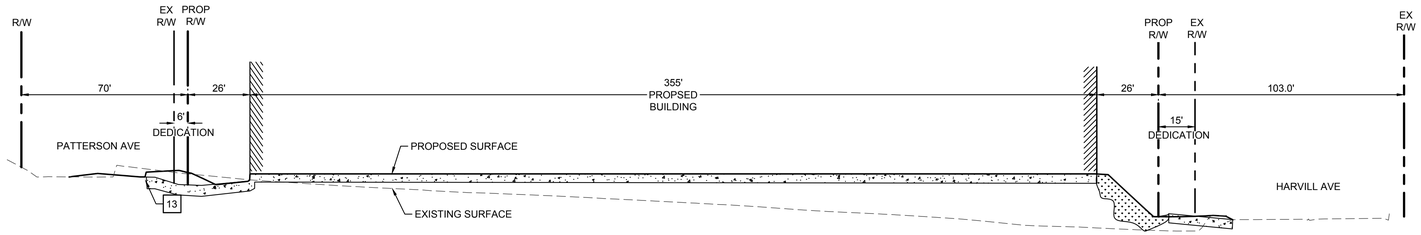
BENCHMARK:

SCALE: H:_____ V:_____

LDC INDUSTRIAL REALTY, LLC
PLOT PLAN
PATTERSON AND HARVILL
PPT 220026
PRELIMINARY GRADING PLAN

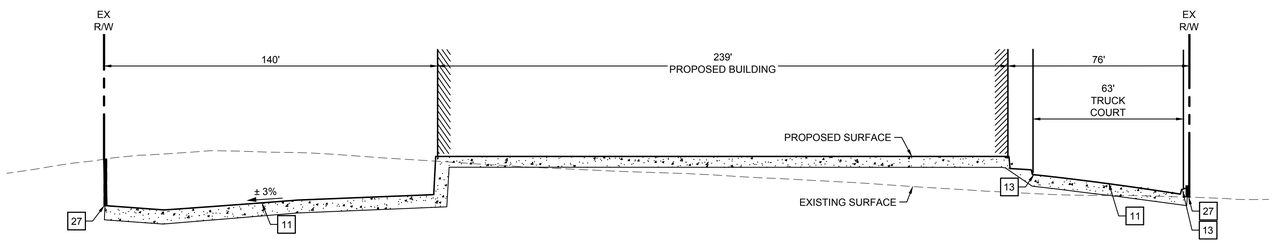
FOR: W.O. COUNTY FILE NO.

SHEET NO. 2
2 OF 5 SHTS



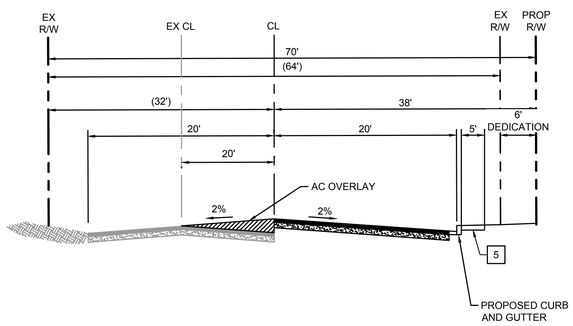
SITE SECTION A

HORIZ: 1" = 40'
VERT: 1" = 10'



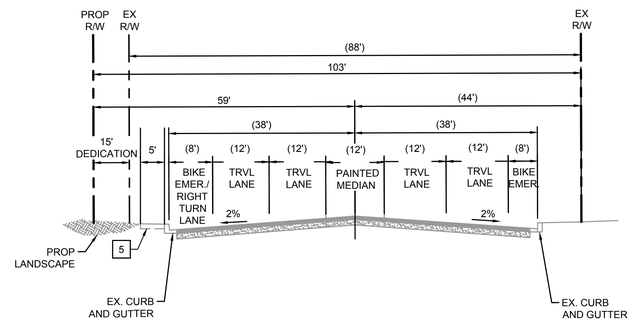
SITE SECTION B

HORIZ: 1" = 40'
VERT: 1" = 10'



PATTERSON AVE

NOT TO SCALE



HARVILL AVE

NOT TO SCALE

CONSTRUCTION NOTES

- 5 CONSTRUCT 4" P.C.C. SIDEWALK
- 11 CONSTRUCT 8" P.C.C. TRUCK COURT
- 13 CONSTRUCT 6" CURB AND GUTTER
- 27 PROPOSED RETAINING WALL

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MARK	BY	DATE	REVISIONS	APPR.	DATE
KHA	JB	9/14/22	PPT SUBMITTAL 2		

ENGINEER — COUNTY

SEAL—ENGINEER

ENGINEERING COMPANY

PREPARED BY: R.C.E. NO. DATE

BENCHMARK:

SCALE: H:_____ V:_____

LDC INDUSTRIAL REALTY, LLC
PLOT PLAN
PATTERSON AND HARVILL
PPT 220026
DETAILS

SHEET NO. 4
4 OF 5 SHTS

FOR: W.O. COUNTY FILE NO.

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

APPLICATION FOR MAJOR LAND USE ACTION REVIEW

ALUC STAFF ONLY

ALUC Case Number: ZAP1547MA22 Date Submitted: 10/21/22

AIA: March Zone: C2 Public Hearing ☑ Staff Review ☐

Applicant

Applicant Full Name: Larry D. Cochrun

Applicant Address: 555 N. El Camino Real #A456, San Clemente CA 92672

Phone: 949-226-4601 **Email:** lcochrun@ldcindustrial.com

Representative/ Property Owner Contact Information

Representative: T&B Planning, Inc. **Email:** canderson@tb
Connie Anderson Phone: 714-505-6360

Address: 3200 El Camino Real, Suite 100 Irvine CA 92602

Property Owner: Harvill Rider, LLC **Email:** tcincinelli@mc
Tony Cincinelli Phone: 630-576-1105

Address: 18W140 Butterfield Rd Suite 750, Oakbrook Terrace IL 60181

Local Jurisdiction Agency

Agency Name: Riverside County Phone: 951-955-6646

Staff Contact: Deborah Bradford **Email:** dbradfor@rivc

Address: 4080 Lemon Street, 12th Floor, Riverside, California 92502

Local Agency Case No.: PPT 220026

Project Location

Street Address: No assigned address Gross Parcel Size.: 4.56

Assessor's Parcel No.: 317-160-037

Solar

Is the project 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

Site Elevation:(above mean sea level) 1517 ft

Height of Building or structures: 44 feet (request to review at 50 feet to allow flexibility up to

What type of drainage basins are being proposed and the square footage: Bioretention Basin, 5,586 sqft

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, County Administrative Center, 4080 Lemon Street, 14th Floor, Riverside, CA 92501, Phone: 951-955-5132 Fax: 951-955-5177 Website: www.rcaluc.org

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 Deborah Bradford at (951) 922-6646.

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: **December 15, 2022**

TIME OF HEARING: **9:30 A.M.**

CASE DESCRIPTION:

ZAP1547MA22 – Industrial Realty, LLC (Representative: T&B Planning, Inc.) – County of Riverside Case No. PPT220026 (Plot Plan). A proposal to construct a 100,924 square foot industrial building with mezzanines on 4.56 acres, located easterly of Patterson Avenue, westerly of Harvill Avenue, and southerly of Cajalco Road (Airport Compatibility Zone C2 of the March Air Reserve Base/Inland Port Airport Influence Area).

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

STAFF REPORT

ADMINISTRATIVE ITEMS

5.1 Director's Approvals

A. During the period of October 16, 2022, through November 15, 2022, as authorized pursuant to Section 1.5.2(d) of the 2004 Riverside County Airport Land Use Compatibility Plan, ALUC Director Paul Rull reviewed six non-legislative cases within the Jacqueline Cochran Regional Airport Influence Area.

ZAP1067TH22 (Zone D) pertains to County of Riverside Building and Safety Case No. BRS2202554 (Building Permit), a proposal to construct a 596 square foot rooftop solar panel system on a proposed residence located at 61825 Fullerton Drive within the Thermal Motorclub. The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less or 5.0 dwelling or more. The proposed rooftop solar panels will not generate any density. 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 4,844 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 –89 feet below MSL. The site's elevation is -148.8 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -106.8 feet AMSL. Therefore, review by the FAA OES was not required. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 181 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 249 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on October 25, 2022.

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ZAP1068TH22 (Zone C) pertains to County of Riverside Building and Safety Case No. Riverside County Building and Safety Case No. BRS2202674 (Building Permit), a proposal to construct a 597.4 square foot rooftop solar panel system on a proposed residence located at 86876 Roger Way within the Thermal Motorclub. The site is located within Airport Compatibility Zone C of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone C of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less. The proposed rooftop solar panels will not generate any density. 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 5,141 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 –86 feet below MSL. The site's elevation is -149.5 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -107.5 feet AMSL. Therefore, review by the FAA OES was not required. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 597.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 181 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 70 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on October 25, 2022.

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ZAP1069TH22 (Zone D) pertains to County of Riverside Building and Safety Case No. BRS2202673 (Building Permit), a proposal to construct a 596.4 square foot rooftop solar panel system on a proposed residence located at 86756 Roger Way within the Thermal Motorclub. The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less or 5.0 dwelling units per acre or more. The proposed rooftop

solar panels will not generate any density. 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 3,563 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 –102 feet below MSL. The site's elevation is -148.7 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -106.7 feet AMSL. Therefore, review by the FAA OES was not required. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 178 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 53 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on October 25, 2022.

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ZAP1066TH22 (Zone D) pertains to County of Riverside Building and Safety Case No. BRS2200250 (Building Permit), a proposal to construct a 567 square foot rooftop solar panel system on a proposed residence located at 61462 Goodwood Drive within the Thermal Motorclub. The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to below 0.2 dwelling units per acre or above 5.0 dwelling units per acre. The proposed rooftop solar panels will not generate any density. 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 3,961 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 –98 feet below MSL. The site's elevation is -148 feet MSL and the proposed building height (with rooftop solar panels) is 18 feet, resulting in a top point elevation of -130 feet MSL. Therefore, review by the FAA OES was not required. The height of the proposed solar panels will not significantly increase the overall height of the building. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 567 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 15 degrees with no rotation, and an orientation of 190 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 3,463 minutes of "green" level glare, lasting up to 30 minutes a day from March to May and from August to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on November 8, 2022.

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ZAP1070TH22 (Zone C) pertains to County of Riverside Building and Safety Case No. BRS2202721 (Building Permit), a proposal to construct a 596.4 square foot rooftop solar panel system on a proposed residence located at 60933 Watkins Glen Drive within the Thermal Motorclub. The site is located within Airport Compatibility Zone C of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone C of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less. The proposed rooftop solar panels will not generate any density. 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 2,436 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 –113.5 feet below MSL. The site's elevation is -145.8 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -103.8 feet AMSL. Therefore, review by the FAA OES and a Determination of No Hazard to Air Navigation letter will be required prior to building permit issuance. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 178 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 930 minutes of "green" level glare, lasting up to 10 minutes a day from March to

September from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on November 8, 2022.

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ZAP1071TH22 (Zone C) pertains to County of Riverside Building and Safety Case No. BRS2202717 (Building Permit), a proposal to construct a 597.4 square foot rooftop solar panel system on a proposed residence located at 86909 Newton Way within the Thermal Motorclub. The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to either below 0.2 dwelling units per acre or above 5.0 dwelling units per acre. The proposed rooftop solar panels will not generate any density. 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 4,447 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 –94 feet below MSL. The site's elevation is -149.3 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -107.3 feet AMSL. Therefore, review by the FAA OES was not required. 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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 597.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 183 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time. The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 456 minutes of "green" level glare, lasting up to 10 minutes a day from March to April and from August to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low. 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. Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of

approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

ALUC Director Paul Rull issued a determination of consistency for this project on November 8, 2022.

B. Additionally, ALUC Director Paul Rull reviewed one non-legislative case within the French Valley Airport Influence Area pursuant to ALUC Resolution No. 2020-02, and issued a determination of consistency.

ZAP1123FV22 (Zone C) pertains to County of Riverside Case Nos. PP26344R01 (Plot Plan Amendment), CUP220031 (Conditional Use Permit), a proposal to replace the approved site design for Buildings 6 and 7 from 12,600 square feet in total area within the French Valley Market Place to a 3,359 square foot car wash building/tunnel, on Parcel 10 (3.00 acres) as part of the overall 132,568 square foot retail commercial center on 21.16 acres which was previously found consistent under ZAP1087FV19, located on the northeast corner of Thompson Road and Highway 79 Winchester Road. The proposal to replace Buildings 6 and 7 with a 3,359 square foot car wash building/tunnel would accommodate a new occupancy of 17 people, and in conjunction with Building 5 (which was recently amended under ZAP1103FV20) occupancy of 57 people would accommodate a total occupancy (for Parcel 10) of 74 people, resulting in an average intensity of 25 people per acre, and the proposed single acre intensity would be the entire car wash building accommodating 17 people, which is consistent with Zone C average acre intensity criterion of 80 people per acre, and maximum single acre intensity of 160 people.

ALUC Director Paul Rull issued a determination of consistency for this project on October 21, 2022.

5.2 Update March Air Reserve Base Compatibility Use Study (CUS)
Presentation by Project Director Simon Housman or his designee.

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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

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County Administrative Center
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www.rcaluc.org

October 25, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1067TH22
Related File No.:	BRS2202554 (Building Permit)
APN:	759-220-001

Dear Mr. Shahrouri:

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 Building and Safety Case No. BRS2202554 (Building Permit), a proposal to construct a 596 square foot rooftop solar panel system on a proposed residence located at 61825 Fullerton Drive within the Thermal Motorclub.

The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less or 5.0 dwelling or more. The proposed rooftop solar panels will not generate any density.

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 4,844 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 –89 feet below MSL. The site's elevation is -148.8 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -106.8 feet AMSL. Therefore, review by the FAA OES was not required.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 181 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 249 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 5 degrees and orientation of 181 degrees. Solar panels shall be limited to a total of 596.4 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

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: Fullerton Architects, P.C. (applicant/representative))
JTM Land Co. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1067TH22\ZAP1067TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

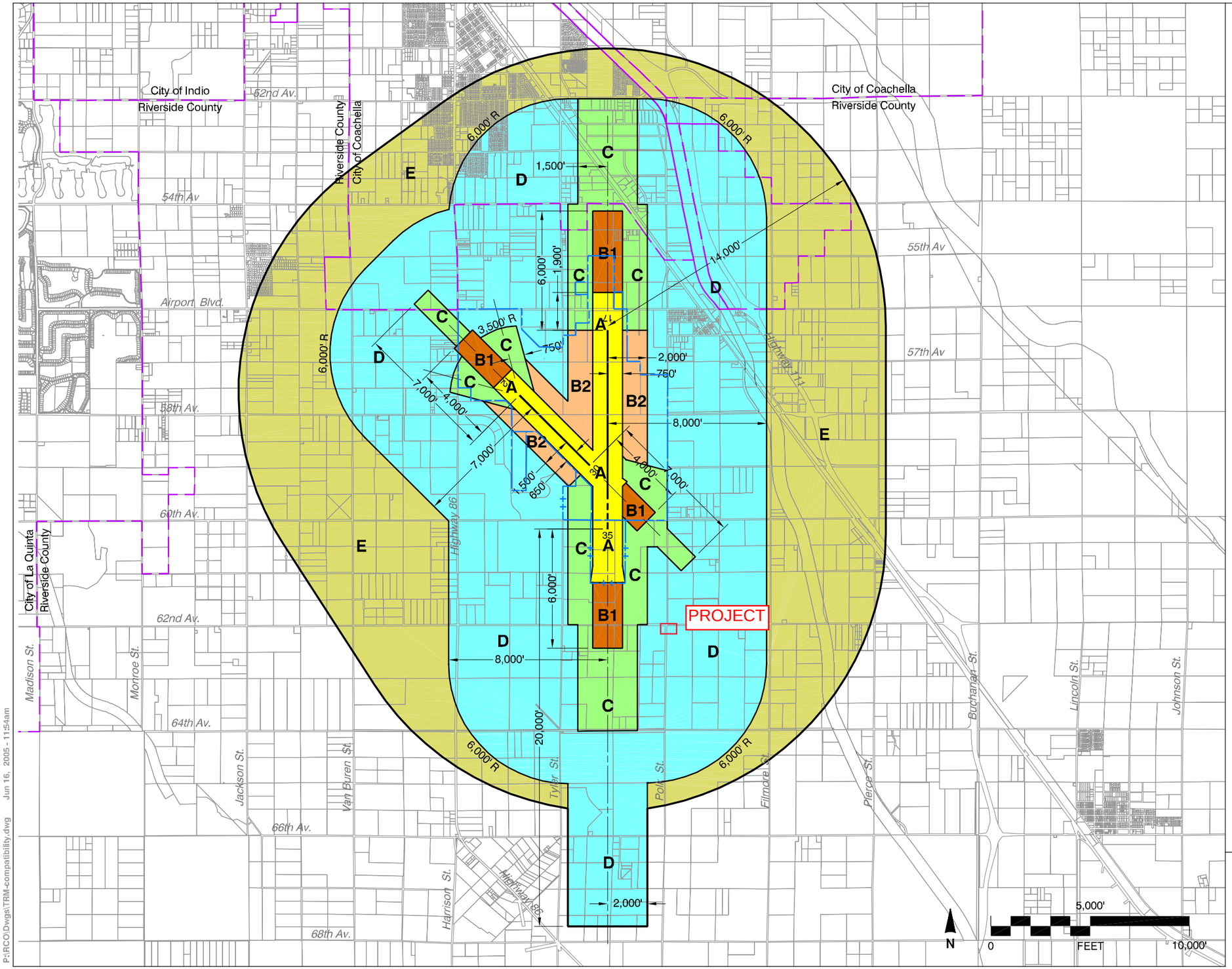
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

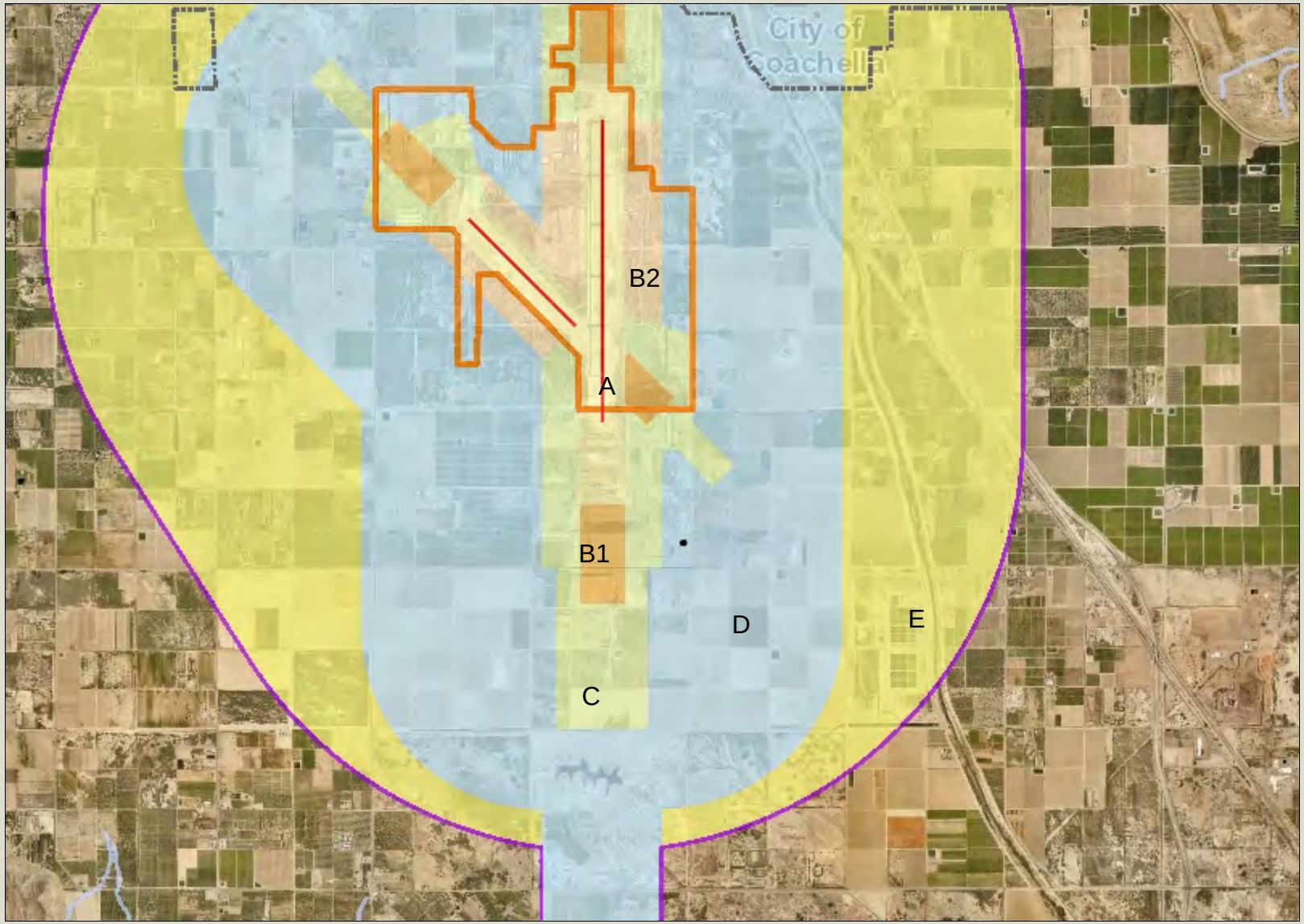
Map JC-1

Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

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0 6,157 12,314 Feet

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Notes

Map My County Map

Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 24 48 Feet

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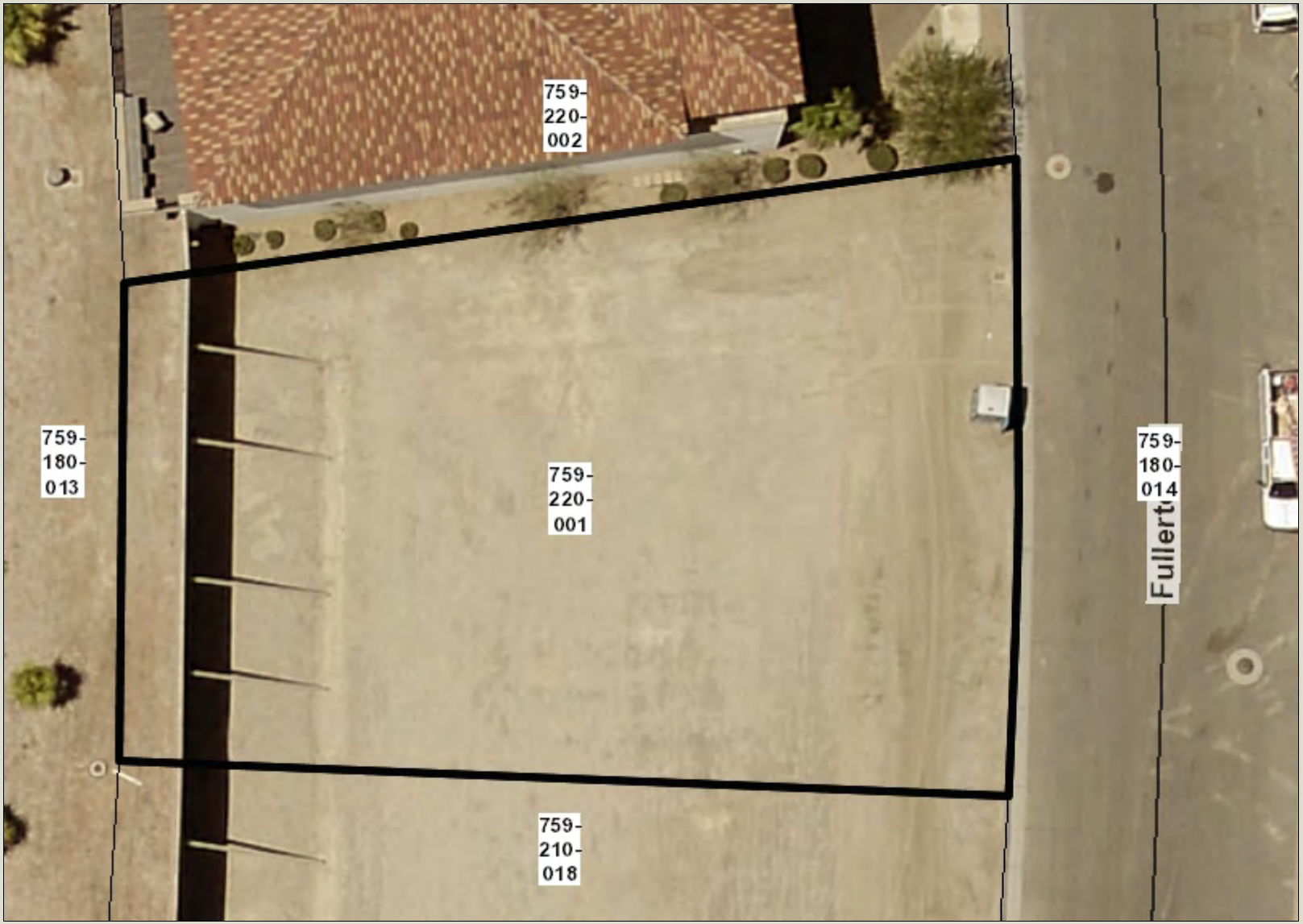
Notes

Map My County Map



Legend

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

0 24 48 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 3,079 6,157 Feet

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Notes

Map My County Map

Legend

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

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0 1,539 3,079 Feet

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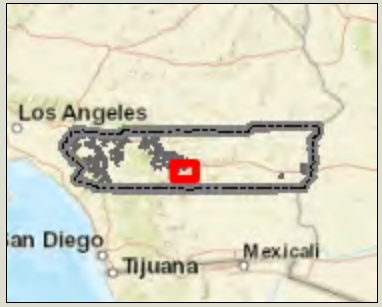
Notes

Map My County Map



Legend

City Areas

World Street Map

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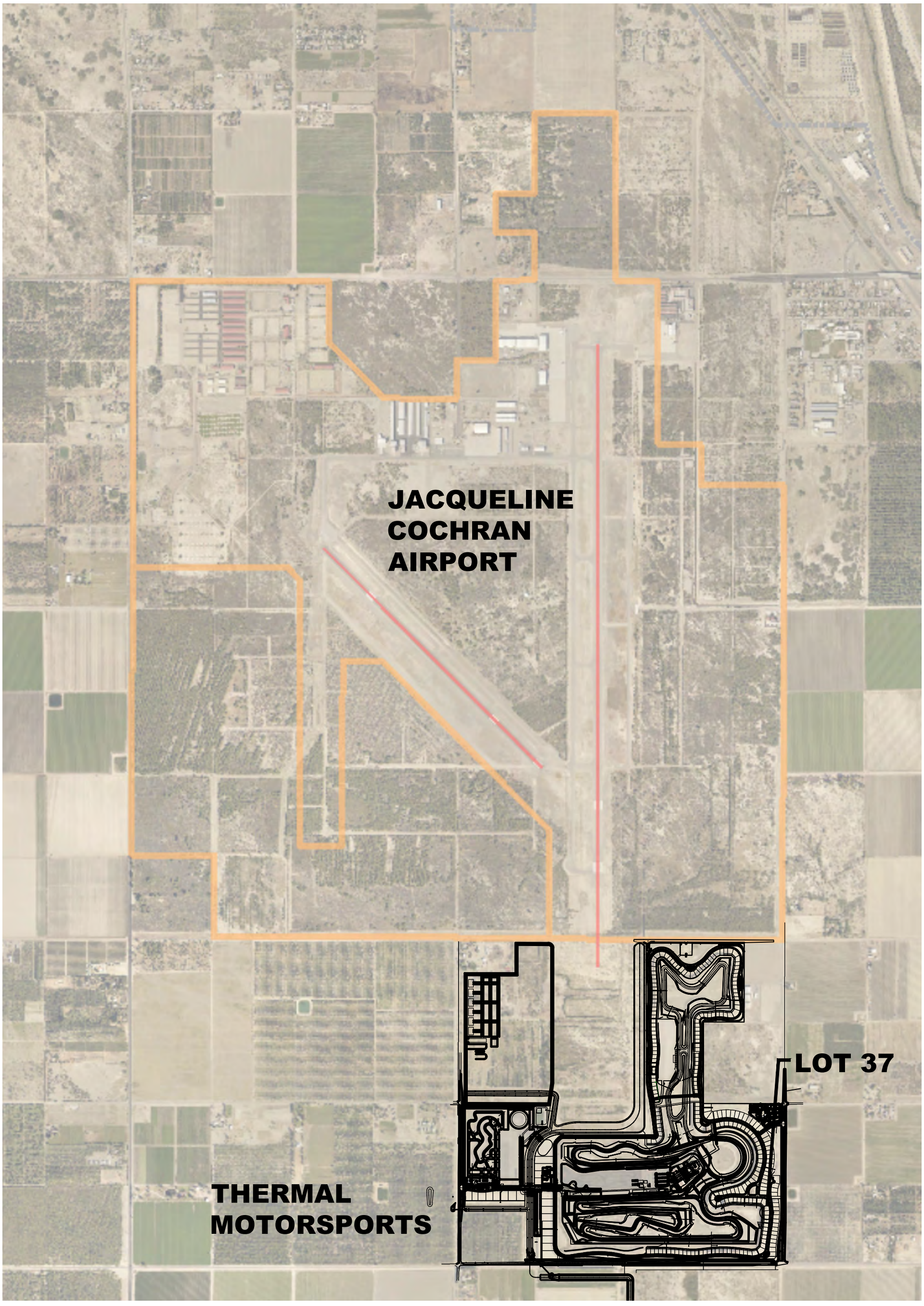
Notes



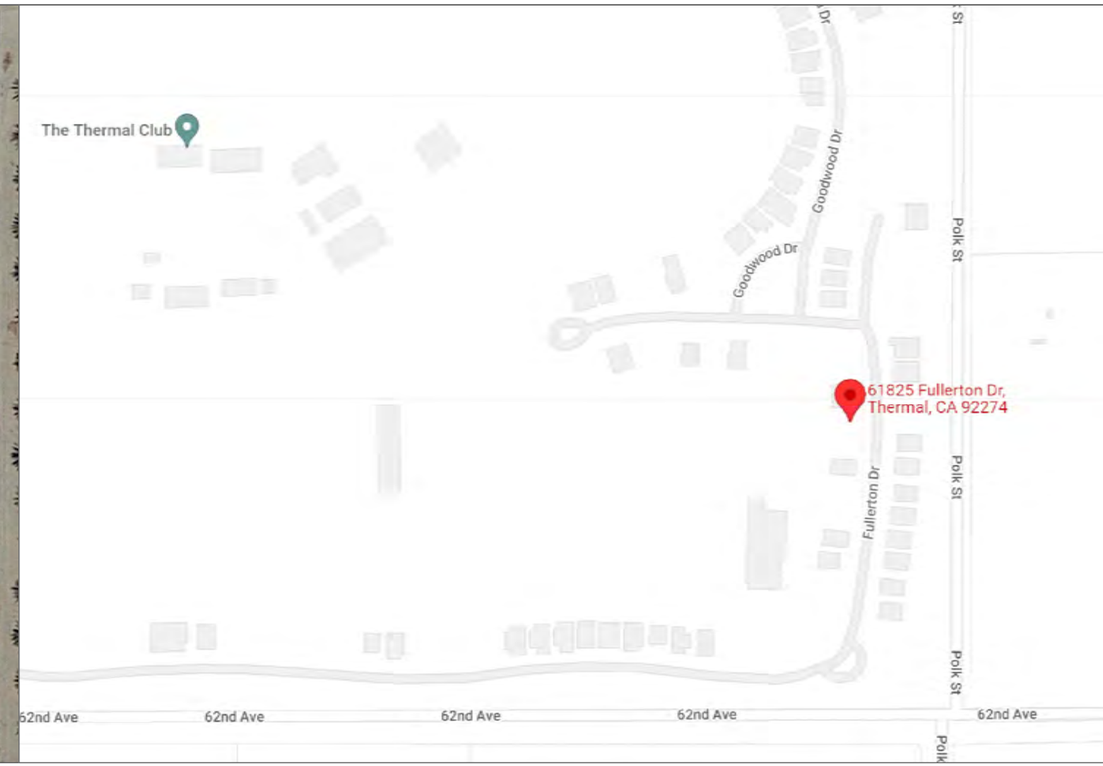
0 750 1500
FEET

PLAN NORTH

N

1 SITE PLAN

SCALE: 1"= 1,500'



Revisions:	Date:
Rev A	10/4/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

GENERAL NOTES:

1. ALL ELECTRICAL WORK TO BE INSTALLED BY A QUALIFIED LICENSED ELECTRICIAN AND APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN.
2. ALL SOLAR MODULES SHALL BE UL LISTED 1703 AND CEC APPROVED. ALL INVERTERS SHALL BE UL LISTED 1741SA CERTIFIED AND CEC APPROVED. ALL ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED AND APPROVED FOR IT'S PURPOSE AND INSTALLED IN A WORKMAN LIKE MANNER. ALL OUTDOOR EQUIPMENT SHALL MEET APPROPRIATE NEMA STANDARDS.
3. THIS SYSTEM IS INTENDED TO BE OPERATED IN PARALLEL WITH THE UTILITY SERVICE PROVIDER. ANTI-ISLANDING PROTECTION IS A REQUIREMENT OF UL1741 AND IS INTENDED TO PREVENT THE OPERATION OF THE PHOTOVOLTAIC SYSTEM WHEN THE UTILITY GRID IS NOT IN OPERATION.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE LOCAL UTILITY SERVICE PROVIDER.
5. THE METHOD OF MOUNTING SHALL BE DONE IN ACCORDANCE WITH THE RACKING MANUFACTURER TO MEET DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREMENTS. PHOTOVOLTAIC MODULES WILL BE SECURED AND MOUNTED ON THE ROOF AS SPECIFIED ON THE STRUCTURAL SHEETS. EXISTING ROOF EQUIPMENT WILL NOT BE EFFECTED BY THE PHOTOVOLTAIC SYSTEM OR INSTALLATION.
6. ALL FASTENERS SHALL BE CORROSION RESISTANT APPROPRIATE FOR THE SITE CONDITIONS.
7. ALL ROOFING REPAIRS MUST MAINTAIN EXISTING CLASS AND TYPE OF ROOF AND ALL WORK SHALL BE IN ACCORDANCE WITH THE ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
8. TO BE INSTALLED IN SUCH A MANNER THAT IS DISCREET AND DOES NOT DETRACT FROM THE HOMES ARCHITECTURE

DESCRIPTION OF WORK:

ROOF MOUNTED PHOTOVOLTAIC (SOLAR ELECTRIC) INSTALLATION TILT MOUNTED @ 5° FACING AN AZIMUTH OF 181° CONSISTING OF (30) PANASONIC EVPV400H - 400 WATT MODULES (12.0Kw).

RACK MOUNTING SYSTEM IS UNIRAC SOLARMOUNT ALUMINUM SUPPORT RAILS AND FAST JACK SOLAR STANCHIONS.

INSTALLATION SHALL COMPLY WITH THE FOLLOWING CODES:

CEC 2019 - ARTICLE 690, 705,706 AND OTHERS NEC 2020 705.13
CPC 2019
CBC 2019
CMC 2019
CFC 2019

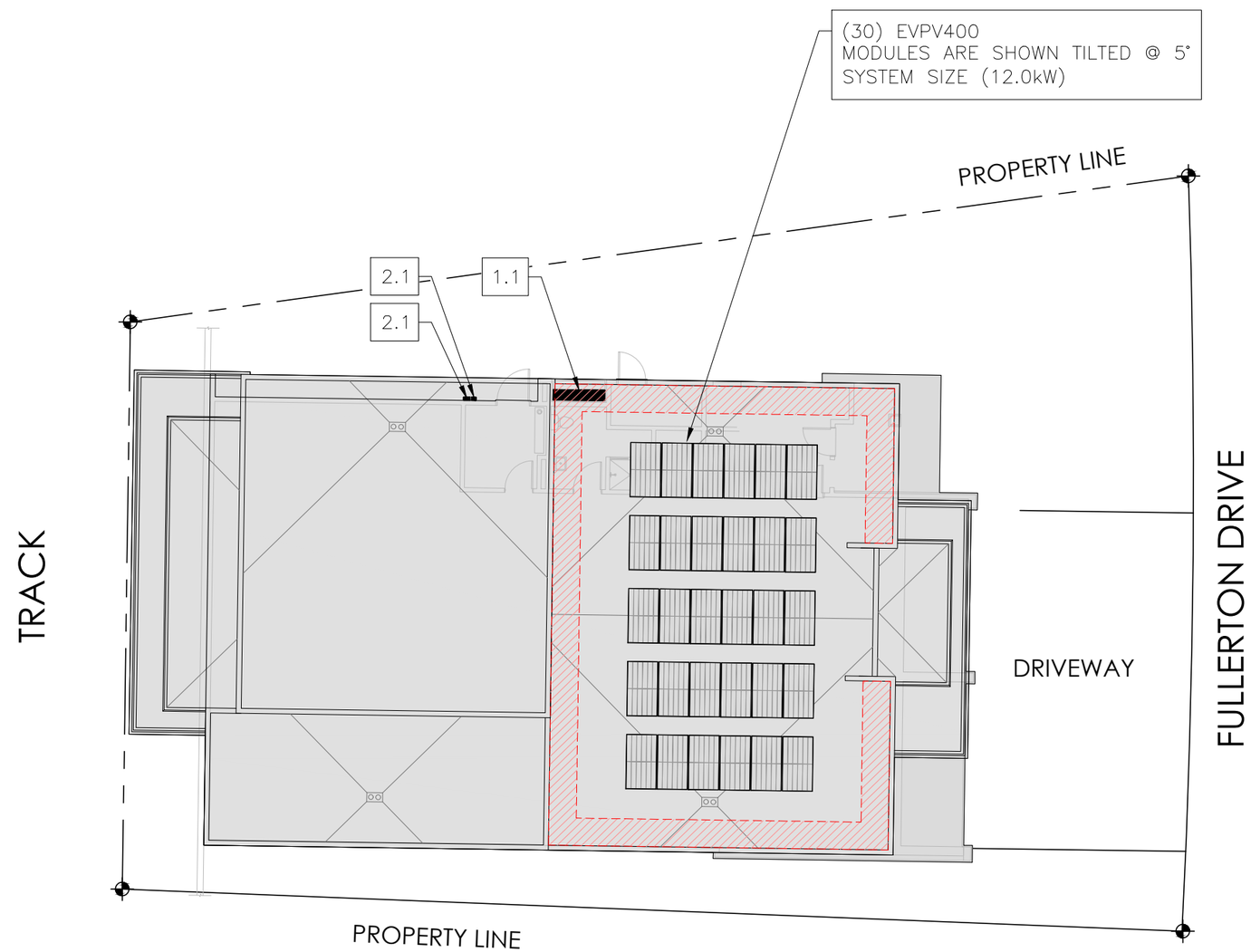
DRAWING SHEETS:

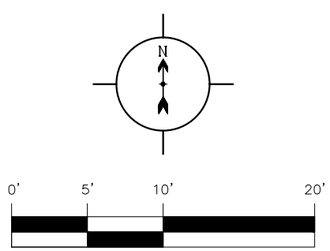
COVER SHEET	PV-0.0
SITE PLAN	PV-1.0
ROOF PLAN	PV-2.0
SINGLE LINE DIAGRAM	PV-3.0
MOUNTING DETAIL	PV-4.0
WARNING LABELING	PV-5.0

SPECIFICATION SHEETS:
EVPV400H MODULE
SE11400H-US INVERTER
UNIRAC CERTIFICATION

Title: Thermal Lot 37
COVER SHEET
61825 Fullerton Dr
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/4/2022
Scale: NTS
Job Number: 22196
Sheet Number:
PV-0.0
Sheet





SITE PLAN KEYNOTE:

EXISTING ELECTRICAL

1.1 600A MAIN ELECTRICAL PANEL

NEW ELECTRICAL
(ADJACENT TO MSP)

2.1 SYSTEM AC DISCONNECT
2.2 SE1140H-US PV INVERTER

SITE LEGEND

FIRE EASEMENT/ACCESS

EAVE SETBACK/WALL

Revisions:	Date:
Rev A	10/4/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

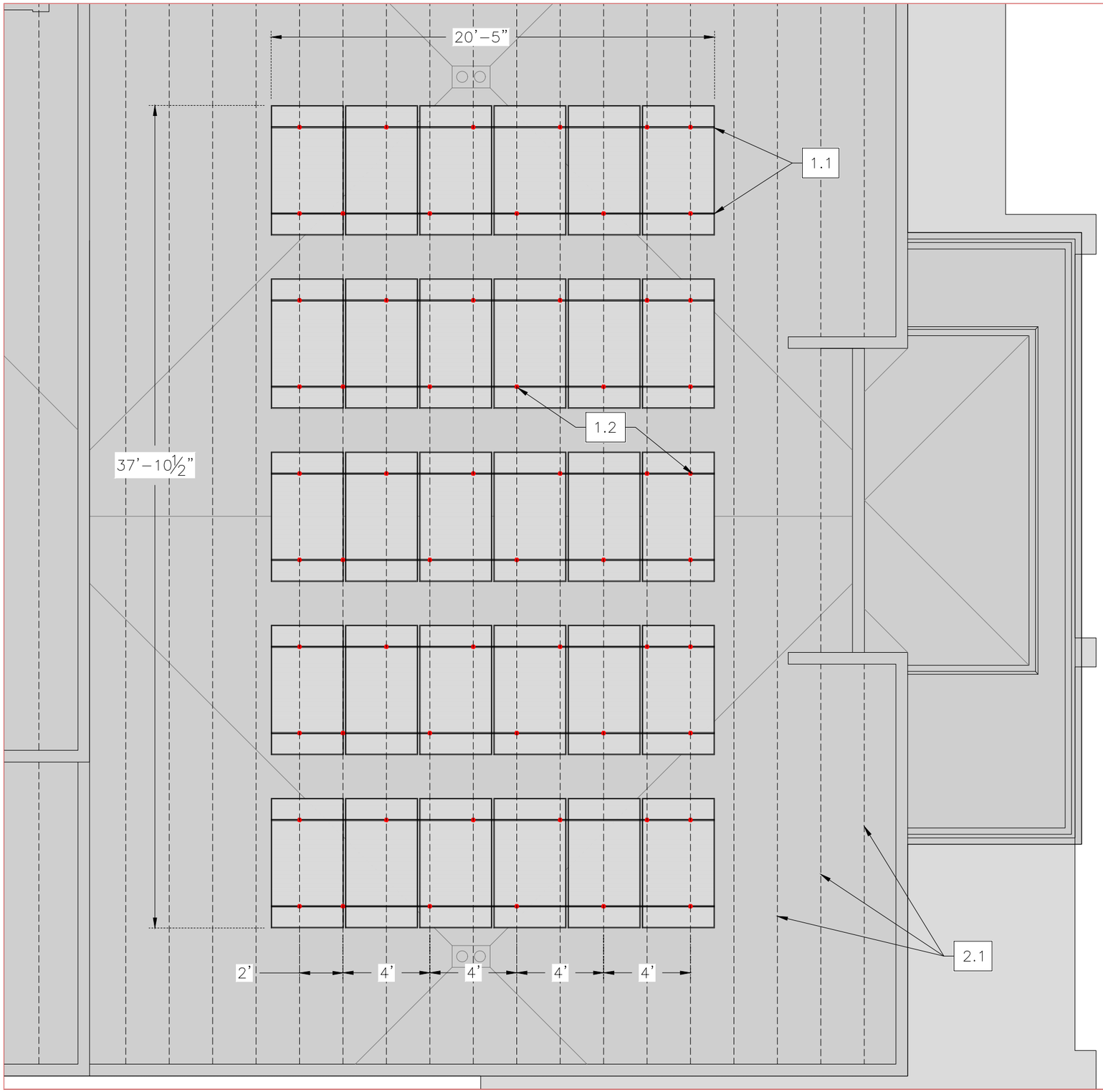
INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 37
SITE PLAN
61825 Fullerton Dr
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/4/2022
Scale: 1" = 15'
Job Number: 22196
Sheet Number:

PV-1.0

Sheet



NO ROOF VENTS, ATTIC VENTS OR OTHER NECESSARY BUILDING COMPONENTS MAY BE COVERED OR ALTERED BY THE INSTALLATION OF THE NEW PV ARRAY

MOUNT PLAN KEYNOTE:

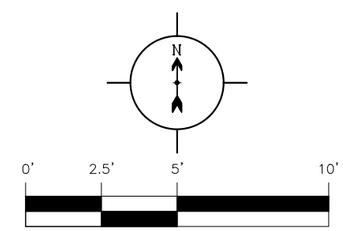
RACK MOUNT COMPONENTS

1.1 UNIRAC ALUMINUM SUPPORT RAIL
1.2 FAST JACK SOLAR STANCHIONS

STRUCTURAL

2.1 ROOF SUPPORTS 16" TJI 210 @ 24" O.C TYP.

1. VERIFY RAFTER SPACING IN THE FIELD BEFORE ATTACHING MOUNTS ROOF.
2. ENSURE THAT MOUNTING LAGS PENETRATE CENTER OF RAFTERS AND MAKE STRUCTURAL CONNECTION TO THE RAFTERS.
3. STRUCTURAL CONNECTION TO ENGINEERED TRUSS SHALL BE MADE BY 3-1/2" X 5/16" STAINLESS STEEL LAG SCREWS 3" MIN. EMBEDMENT.
4. ALL MOUNTS SHALL BE 20" FROM ALL VALLEYS.
5. PHOTOVOLTAIC MODULES SHALL HAVE 2.0 MOUNTS (LAG SCREWS) PER PANEL.
6. (E) ROOF STRUCTURE IS FLAT 16" TJI 210 @ 24" O.C TYP.
7. (E) ROOFING MATERIAL IS 1 LAYER OF TPO OVER 1 LAYER OF 30LB. FELT PAPER AND 1/2" OSB PLYWOOD DECKING.
8. MODULE DIMENSIONS 71.4" x 40.0"



48" SPACING BETWEEN MOUNTS IS TYPICAL - MAX SPAN 6'

Analysis of dead load weight added to roof by installation of solar array

Array #1

Panasonic EVPV400H	45.00	pounds		
No. of solar modules	30			
Total weight of modules	1,350	pounds		
Weight of each Solar Rack set	10	pounds		
No. of rack sets	30.0			
Total weight of rack sets	287	pounds		
Total weight of solar array	1,637	pounds	2.0	mounts per module
Height of each module	5.97	feet	4.0	lags per module with tile hooks
Width of each module	3.33	feet		
Area of one module	19.9	square feet		
Area of entire solar array	596.4	square feet		
Weight of solar array per unit area of roof	2.7	pounds/square foot		
No. of stanchions connected to roof joist rafters	60			
Weight loading per stanchion	27.3	pounds/connection		

Revisions:	Date:
Rev A	10/4/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

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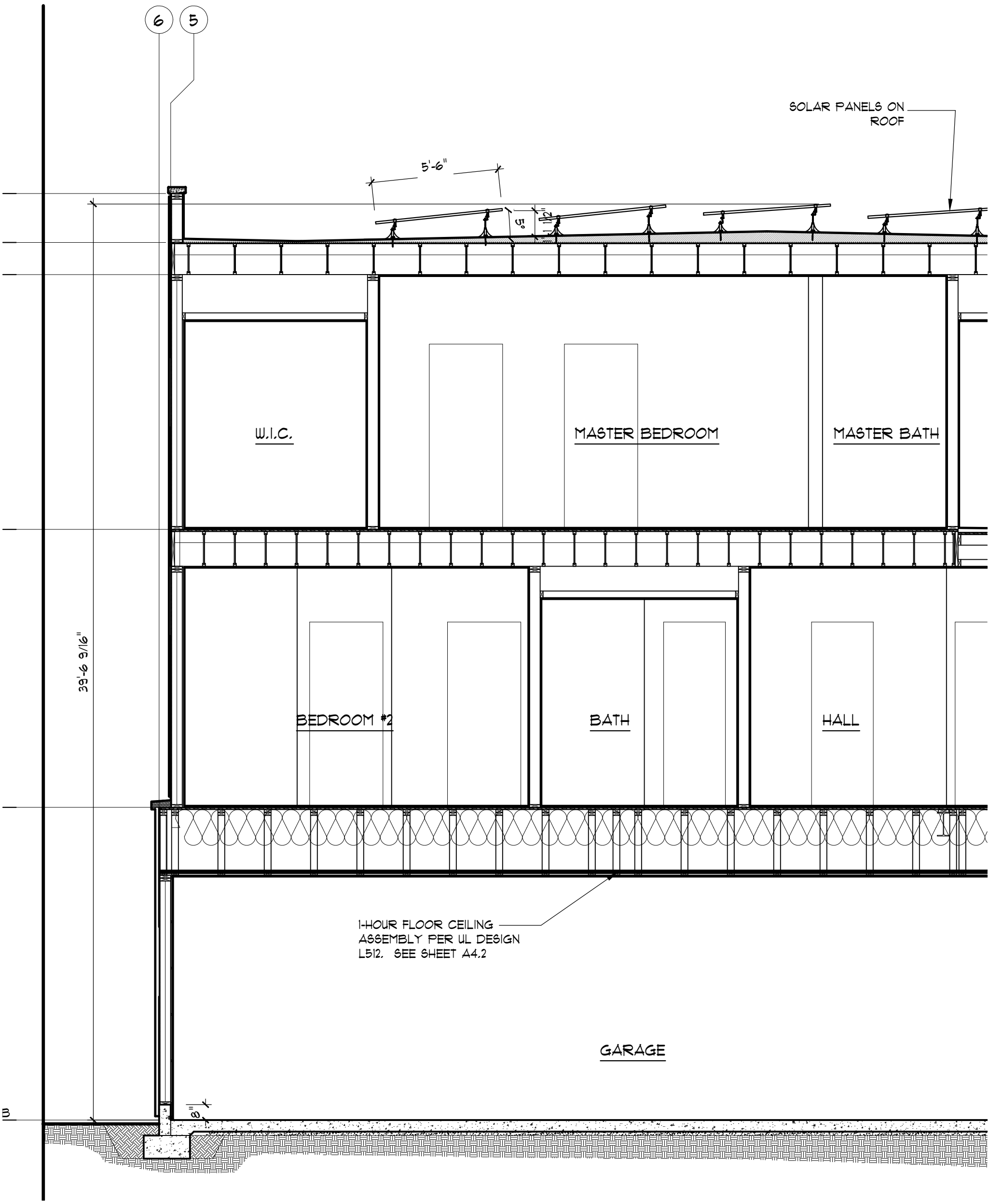
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title: Thermal Lot 37
ROOF PLAN
61825 Fullerton Dr
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/4/2022
Scale: 1" = 5'
Job Number: 22196
Sheet Number:

PV-2.0

Sheet



1 PARTIAL BUILDING SECTION

SCALE: 1/4"= 1'-0"

THERMAL MOTORSPORTS - LOT 37

FORGESOLAR GLARE ANALYSIS

Project: **Riverside Co Residential**
18 rooftop PV arrays near KTRM airport, Thermal CA

Site configuration: **18 homes - incl proposed tower**
Analysis conducted by Dave Belote (dave@darestrategies.com) at 19:16 on 07 Oct, 2022.

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: 59077.8001
Methodology: V1

PV Array(s)

Name: 60864 Monza St
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 170.0°
Rated power: 9.12 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	33.605821	-116.153520	-144.26	39.13	-105.14
2	33.605840	-116.153398	-144.29	39.13	-105.17
3	33.605800	-116.153390	-144.54	39.00	-105.54
4	33.605782	-116.153511	-144.53	39.00	-105.53

Name: 60984 Monza St
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 262.0°
Rated power: 13.0 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	33.604841	-116.153370	-147.81	36.60	-111.21
2	33.604851	-116.153270	-148.22	38.70	-109.52
3	33.604794	-116.153265	-148.22	38.70	-109.52
4	33.604786	-116.153360	-147.77	36.60	-111.17

Name: 61197 Goodwood
Axis tracking: Fixed (no rotation)
Tilt: 7.0°
Orientation: 168.0°
Rated power: 11.5 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	33.604671	-116.150223	-146.89	33.98	-112.91
2	33.604697	-116.150088	-145.49	33.98	-111.51
3	33.604640	-116.150073	-144.68	33.98	-110.70
4	33.604617	-116.150217	-146.61	33.98	-112.63

Name: 61198 Goodwood
Axis tracking: Fixed (no rotation)
Tilt: 7.0°
Orientation: 186.0°
Rated power: 14.4 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	33.605040	-116.149252	-145.53	30.81	-114.72
2	33.605130	-116.149232	-146.15	30.81	-115.34
3	33.605116	-116.149150	-147.62	30.81	-116.81
4	33.605024	-116.149169	-146.79	30.81	-115.98

Name: 61341 Goodwood Dr
Axis tracking: Fixed (no rotation)
Tilt: 6.0°
Orientation: 209.0°
Rated power: 10.7 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	33.604604	-116.148860	-148.45	35.50	-112.95
2	33.604575	-116.148879	-148.51	35.50	-113.01
3	33.604562	-116.148843	-148.33	35.50	-112.83
4	33.604540	-116.148855	-148.32	35.50	-112.82
5	33.604531	-116.148827	-148.21	35.50	-112.71
6	33.604550	-116.148819	-148.16	35.50	-112.66
7	33.604525	-116.148756	-147.60	35.50	-112.10
8	33.604549	-116.148741	-147.45	35.50	-111.95

Name: 61365 Goodwood Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 228.0°
Rated power: 8.03 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	33.604424	-116.148509	-146.23	40.00	-106.23
2	33.604401	-116.148529	-145.78	39.50	-106.28
3	33.604449	-116.148599	-145.72	39.50	-106.22
4	33.604469	-116.148580	-145.91	40.00	-105.91

Name: 61557 Goodwood
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 190.0°
Rated power: 24.0 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	33.602871	-116.147958	-153.54	40.40	-113.14
2	33.603135	-116.147868	-151.44	40.40	-111.04
3	33.603113	-116.147781	-151.35	39.20	-112.15
4	33.602886	-116.147855	-152.35	39.20	-113.15
5	33.602899	-116.147903	-152.89	39.80	-113.09
6	33.602858	-116.147917	-153.20	39.80	-113.40

Name: 61825 Fullerton Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 181.0°
Rated power: 12.0 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	33.600778	-116.147584	-149.00	40.21	-108.79
2	33.600689	-116.147588	-149.32	39.71	-109.61
3	33.600688	-116.147525	-149.53	39.71	-109.82
4	33.600776	-116.147521	-149.30	40.21	-109.09

Name: 61849 Fullerton Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 183.0°
Rated power: 13.3 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	33.600594	-116.147742	-149.67	43.42	-106.25
2	33.600569	-116.147742	-149.67	43.42	-106.25
3	33.600566	-116.147658	-148.63	43.42	-105.21
4	33.600496	-116.147663	-148.51	43.42	-105.09
5	33.600501	-116.147746	-149.74	43.42	-106.32
6	33.600475	-116.147748	-149.65	43.42	-106.23
7	33.600467	-116.147631	-148.63	43.42	-105.21
8	33.600565	-116.147623	-148.94	43.42	-105.52
9	33.600562	-116.147575	-149.22	43.42	-105.80
10	33.600591	-116.147576	-149.19	43.42	-105.77

Name: 61921 Fullerton
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 98.0°
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	33.600080	-116.147616	-149.99	37.38	-112.61
2	33.600079	-116.147596	-149.77	35.46	-114.31
3	33.600063	-116.147597	-149.64	37.38	-112.26
4	33.600062	-116.147576	-149.33	35.46	-113.87
5	33.600047	-116.147577	-149.29	37.38	-111.91
6	33.600045	-116.147557	-148.91	35.46	-113.45
7	33.599972	-116.147567	-148.82	35.46	-113.36
8	33.599979	-116.147630	-149.21	37.38	-111.83

Name: 61993 Fullerton Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 193.0°
Rated power: 11.315 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	33.599450	-116.147856	-145.78	40.48	-105.30
2	33.599566	-116.147828	-147.02	40.48	-106.54
3	33.599559	-116.147770	-147.89	40.48	-107.41
4	33.599519	-116.147778	-148.09	40.48	-107.61
5	33.599517	-116.147761	-148.14	40.48	-107.66
6	33.599476	-116.147772	-148.36	40.48	-107.88
7	33.599479	-116.147788	-148.27	40.48	-107.79
8	33.599442	-116.147796	-148.54	40.48	-108.06

Name: 86660 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 7.0°
Orientation: 180.0°
Rated power: 11.02 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	33.599124	-116.152582	-151.50	40.25	-111.25
2	33.599034	-116.152581	-153.33	35.09	-118.24
3	33.599034	-116.152514	-152.62	35.09	-117.53
4	33.599068	-116.152513	-152.55	36.64	-115.91
5	33.599068	-116.152498	-152.41	36.64	-115.77
6	33.599123	-116.152499	-150.75	40.25	-110.50

Name: 86684 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 180.0°
Rated power: 9.1 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	33.599045	-116.152212	-147.48	38.80	-108.68
2	33.599046	-116.152187	-147.34	38.80	-108.54
3	33.599032	-116.152187	-147.35	38.60	-108.75
4	33.599031	-116.152139	-147.47	38.60	-108.87
5	33.598970	-116.152139	-147.57	36.60	-110.97
6	33.598972	-116.152210	-147.63	36.60	-111.03

Name: 86744 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 180.0°
Rated power: 9.12 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	33.599001	-116.150984	-150.90	41.00	-109.90
2	33.598999	-116.151056	-150.96	41.00	-109.96
3	33.599080	-116.151054	-149.24	41.50	-107.74
4	33.599081	-116.150985	-149.47	41.50	-107.97

Name: 86804 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 7.0°
Orientation: 270.0°
Rated power: 8.7 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	33.599143	-116.150041	-146.56	36.25	-110.31
2	33.599019	-116.150041	-147.30	36.25	-111.05
3	33.599020	-116.149994	-146.97	36.25	-110.72
4	33.599049	-116.149994	-146.58	36.25	-110.33
5	33.599048	-116.150009	-146.81	36.25	-110.56
6	33.599144	-116.150010	-145.98	36.25	-109.73

Name: 86814 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 8.0°
Orientation: 165.0°
Rated power: 9.6 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	33.601662	-116.150329	-148.15	38.65	-109.50
2	33.601700	-116.150146	-148.42	38.65	-109.77
3	33.601666	-116.150136	-149.51	38.65	-110.86
4	33.601627	-116.150317	-149.14	38.65	-110.49

Name: 86862 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 165.0°
Rated power: 9.1 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	33.601783	-116.149455	-152.02	39.80	-112.22
2	33.601788	-116.149433	-152.00	39.80	-112.20
3	33.601776	-116.149429	-151.96	39.50	-112.46
4	33.601789	-116.149369	-151.79	39.50	-112.29
5	33.601725	-116.149352	-151.14	36.60	-114.54
6	33.601708	-116.149432	-151.55	36.60	-114.95

Name: 86912 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 135.0°
Rated power: 13.3 kW
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

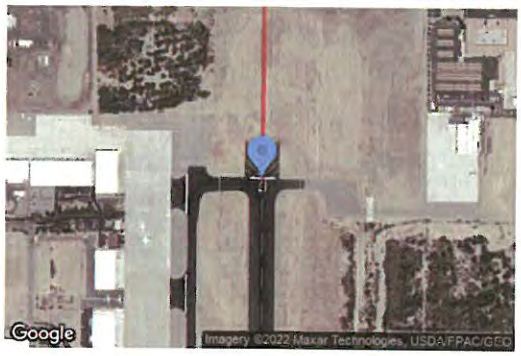
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	33.599095	-116.148008	-141.31	32.00	-109.31
2	33.599146	-116.147942	-141.79	33.00	-108.79
3	33.599135	-116.147930	-141.96	33.00	-108.96
4	33.599144	-116.147921	-142.11	33.00	-109.11
5	33.599117	-116.147893	-142.36	33.00	-109.36
6	33.599051	-116.147984	-142.24	33.00	-109.24
7	33.599075	-116.148009	-141.61	33.00	-108.61
8	33.599083	-116.147999	-141.67	33.00	-108.67

Flight Path Receptor(s)

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	33.630183	-116.171005	-117.94	50.00	-67.94
Two-mile	33.650628	-116.195587	-80.78	566.27	485.49

Name: Rwy 17
Description:
Threshold height: 50 ft
Direction: 180.2°
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	33.639142	-116.156425	-115.33	50.00	-65.33
Two-mile	33.668054	-116.156286	-91.22	579.32	488.10

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	33.620459	-116.159390	-132.29	50.00	-82.29
Two-mile	33.600014	-116.134810	-157.22	628.35	471.14

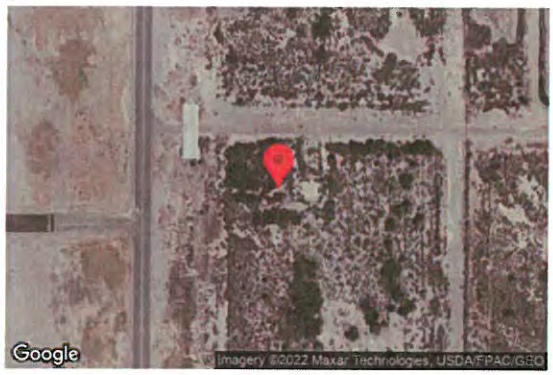
Name: Rwy 35
Description:
Threshold height: 50 ft
Direction: 0.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.615802	-116.156431	-139.06	50.00	-89.06
Two-mile	33.586890	-116.156552	-156.00	620.37	464.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.627040	-116.153590	-129.99	50.00

Map image of 1-ATCT



GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt	Orient	"Green" Glare	"Yellow" Glare	Energy
	(°)	(°)	min	min	kWh
60864 Monza St	5.0	170.0	1,010	0	19,680.0
60984 Monza St	5.0	262.0	511	0	26,950.0
61197 Goodwood	7.0	168.0	1,552	0	25,210.0
61198 Goodwood	7.0	186.0	1,702	0	31,590.0
61341 Goodwood Dr	6.0	209.0	1,443	0	23,140.0
61365 Goodwood Dr	5.0	228.0	1,990	0	17,070.0
61557 Goodwood	5.0	190.0	594	0	51,790.0
61825 Fullerton Dr	5.0	181.0	249	0	25,900.0
61849 Fullerton Dr	5.0	183.0	259	0	28,740.0
61921 Fullerton	5.0	98.0	133	0	22,790.0
61993 Fullerton Dr	5.0	193.0	93	0	24,400.0
86660 Rogers Way	7.0	180.0	67	0	24,190.0
86684 Rogers Way	5.0	180.0	32	0	19,640.0
86744 Rogers Way	5.0	180.0	53	0	19,690.0
86804 Rogers Way	7.0	270.0	0	0	17,850.0
86814 Newton Way	8.0	165.0	727	0	21,180.0
86862 Newton Way	5.0	165.0	430	0	19,620.0
86912 Rogers Way	5.0	135.0	29	0	28,340.0

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
Rwy 12	594	0
Rwy 17	0	0
Rwy 30	10280	0
Rwy 35	0	0
1-ATCT	0	0

Results for: 60864 Monza St

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1010	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

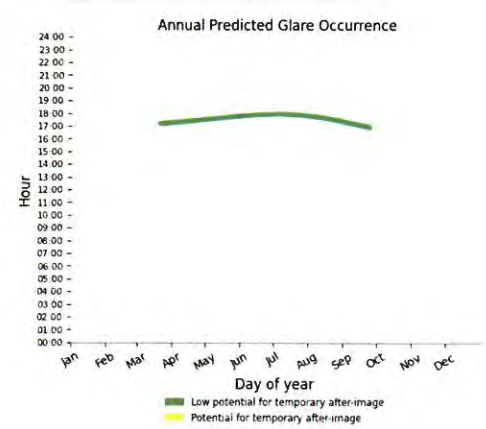
Flight Path: Rwy 17

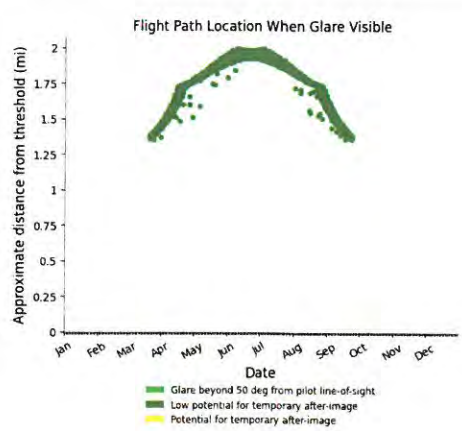
0 minutes of yellow glare
0 minutes of green glare

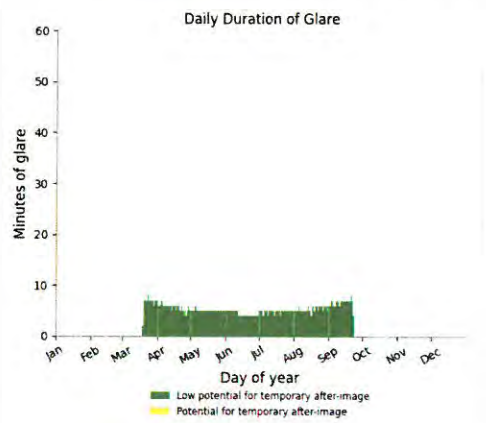
Flight Path: Rwy 30

0 minutes of yellow glare

1010 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

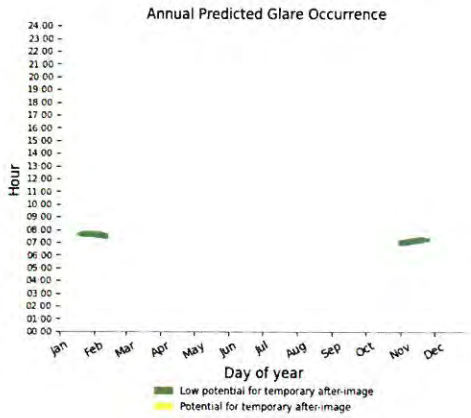
Results for: 60984 Monza St

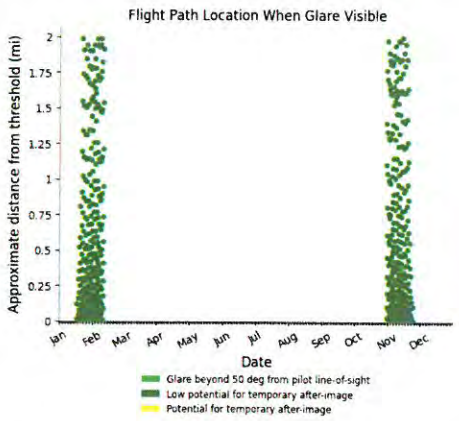
Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	511	0
Rwy 17	0	0
Rwy 30	0	0
Rwy 35	0	0
1-ATCT	0	0

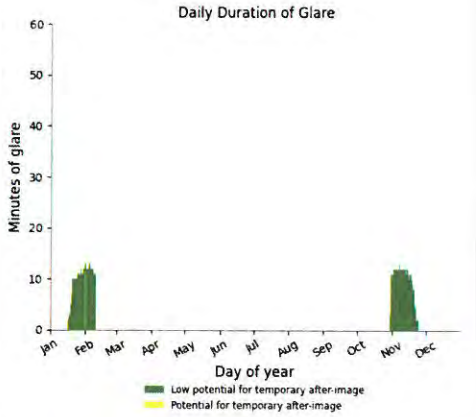
Flight Path: Rwy 12

0 minutes of yellow glare

511 minutes of green glare







Flight Path: Rwy 17

0 minutes of yellow glare

0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 61197 Goodwood

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1552	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

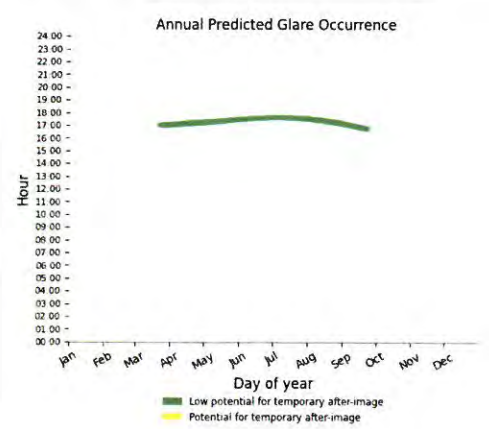
Flight Path: Rwy 17

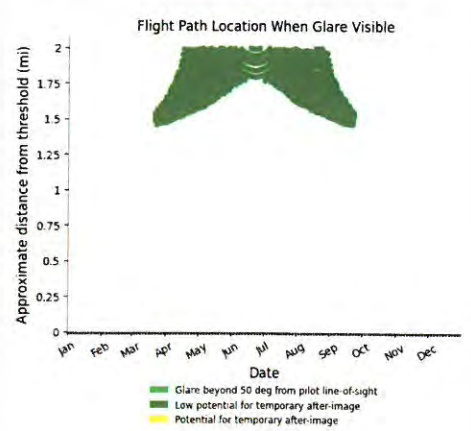
0 minutes of yellow glare
0 minutes of green glare

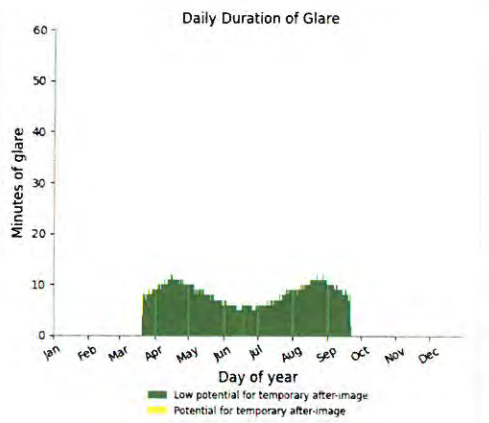
Flight Path: Rwy 30

0 minutes of yellow glare

1552 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61198 Goodwood

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1702	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

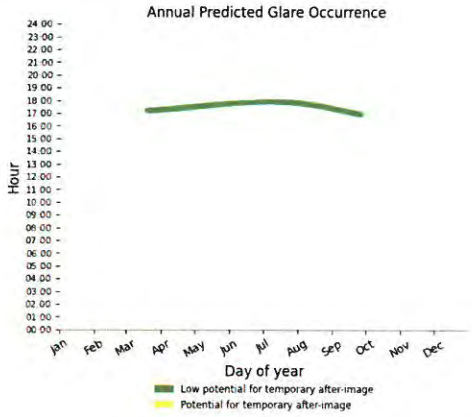
Flight Path: Rwy 17

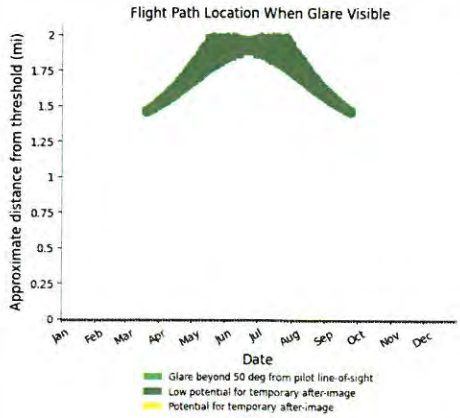
0 minutes of yellow glare
0 minutes of green glare

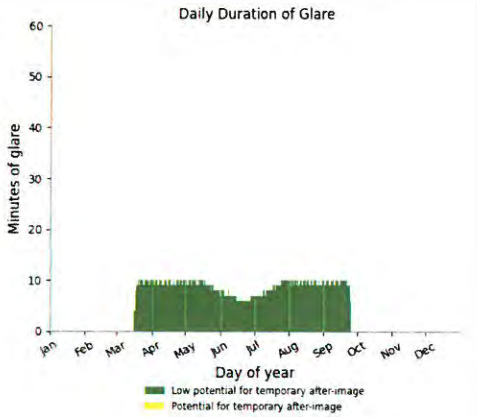
Flight Path: Rwy 30

0 minutes of yellow glare

1702 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61341 Goodwood Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1443	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

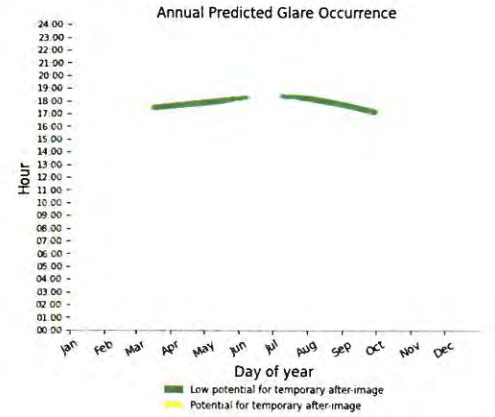
Flight Path: Rwy 17

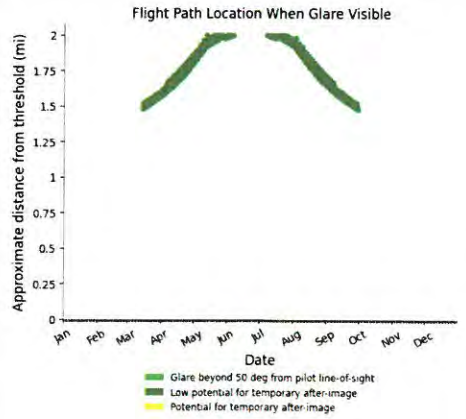
0 minutes of yellow glare
0 minutes of green glare

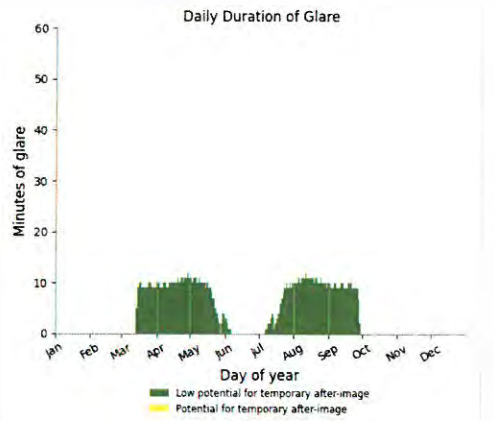
Flight Path: Rwy 30

0 minutes of yellow glare

1443 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

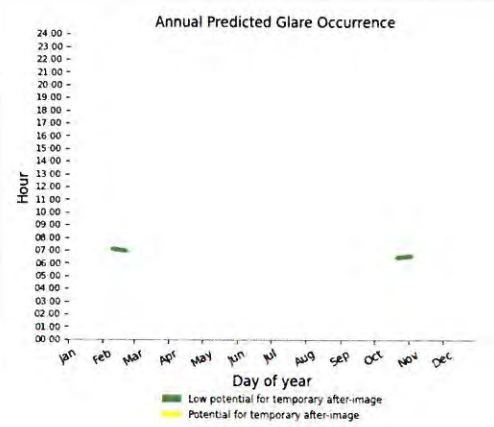
0 minutes of green glare

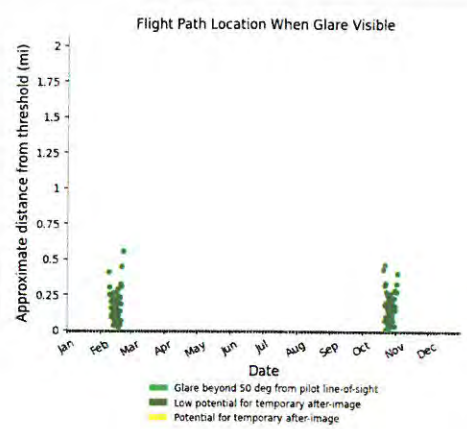
Results for: 61365 Goodwood Dr

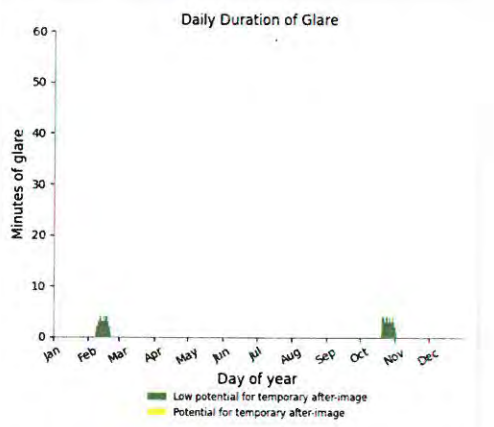
Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	83	0
Rwy 17	0	0
Rwy 30	1907	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
83 minutes of green glare







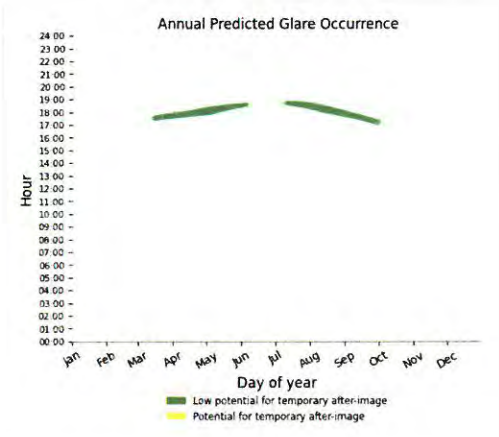
Flight Path: Rwy 17

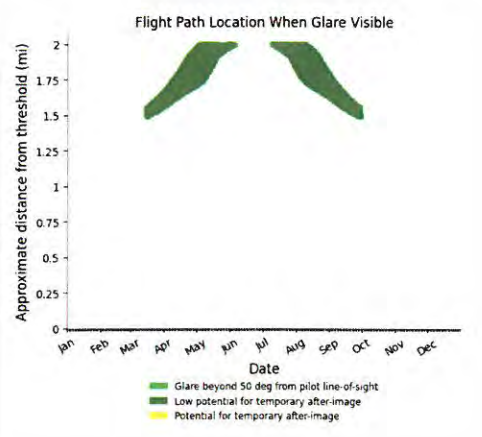
0 minutes of yellow glare
0 minutes of green glare

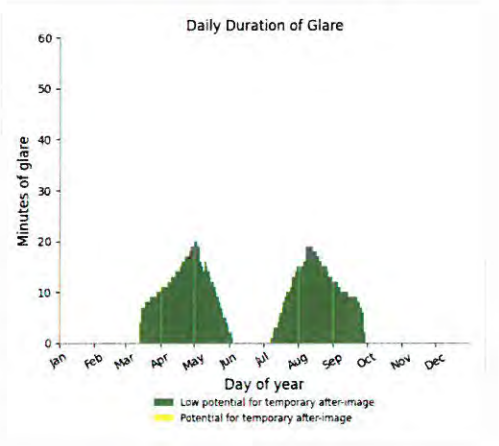
Flight Path: Rwy 30

0 minutes of yellow glare

1907 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61557 Goodwood

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	594	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

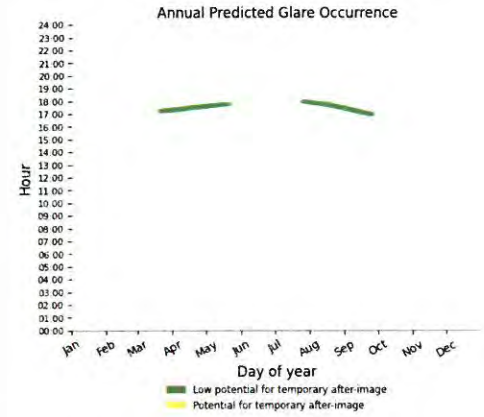
Flight Path: Rwy 17

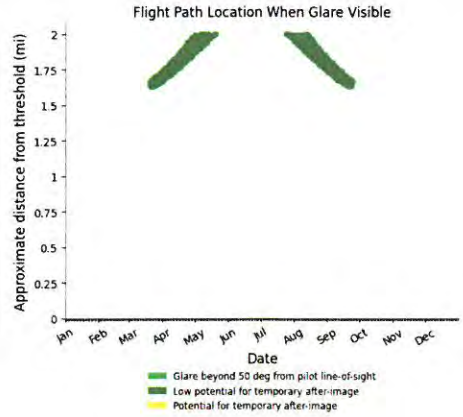
0 minutes of yellow glare
0 minutes of green glare

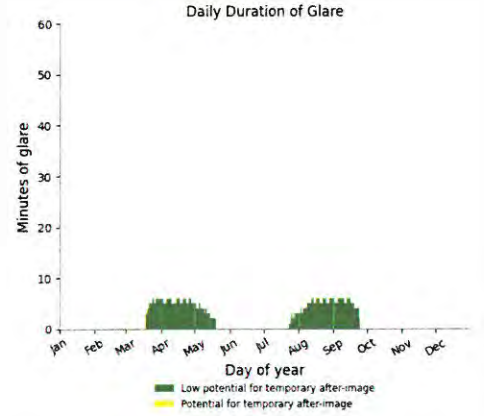
Flight Path: Rwy 30

0 minutes of yellow glare

594 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61825 Fullerton Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	249	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

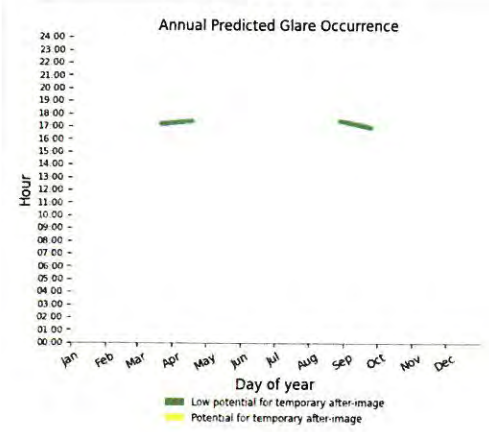
Flight Path: Rwy 17

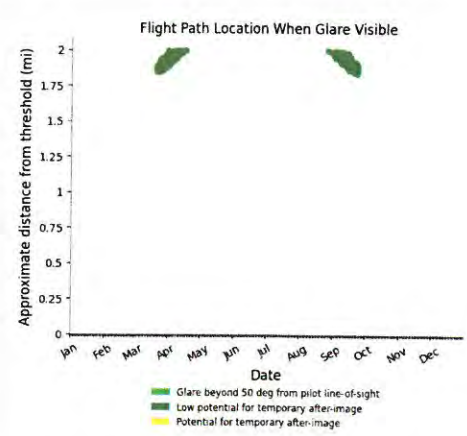
0 minutes of yellow glare
0 minutes of green glare

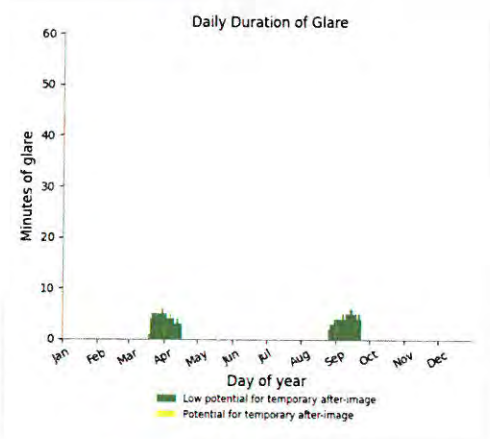
Flight Path: Rwy 30

0 minutes of yellow glare

249 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61849 Fullerton Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	259	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

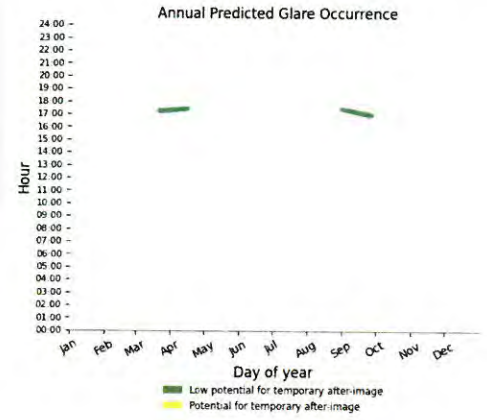
Flight Path: Rwy 17

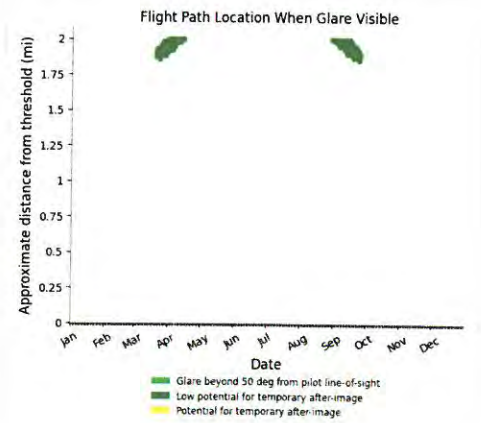
0 minutes of yellow glare
0 minutes of green glare

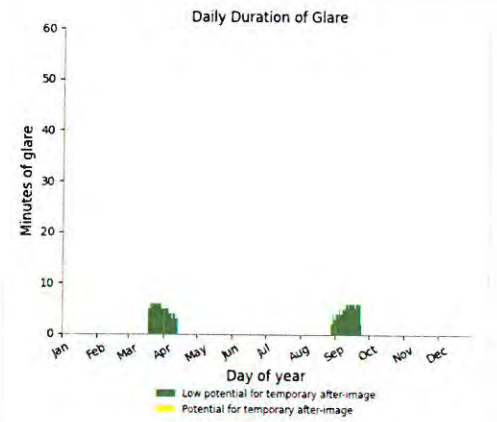
Flight Path: Rwy 30

0 minutes of yellow glare

259 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61921 Fullerton

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	133	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

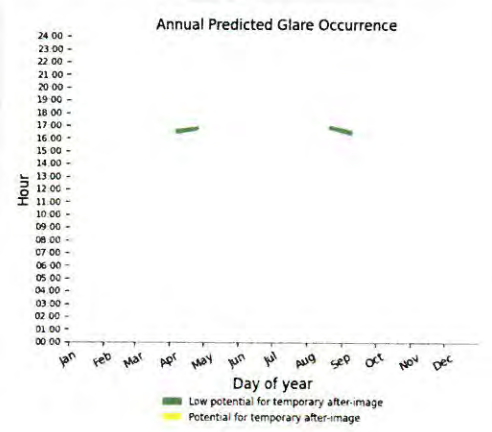
Flight Path: Rwy 17

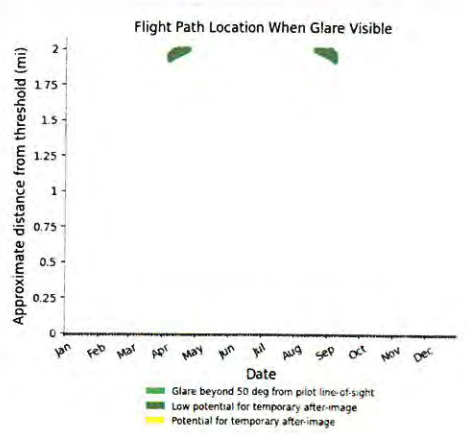
0 minutes of yellow glare
0 minutes of green glare

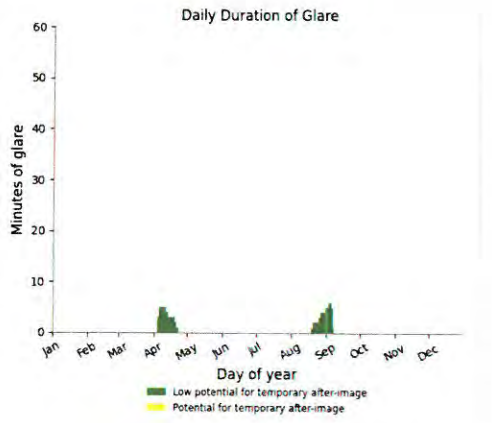
Flight Path: Rwy 30

0 minutes of yellow glare

133 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 61993 Fullerton Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	93	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

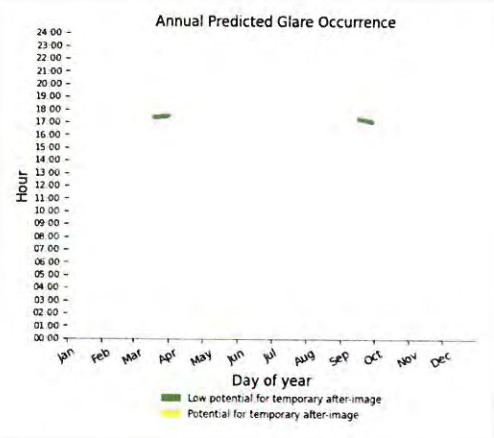
Flight Path: Rwy 17

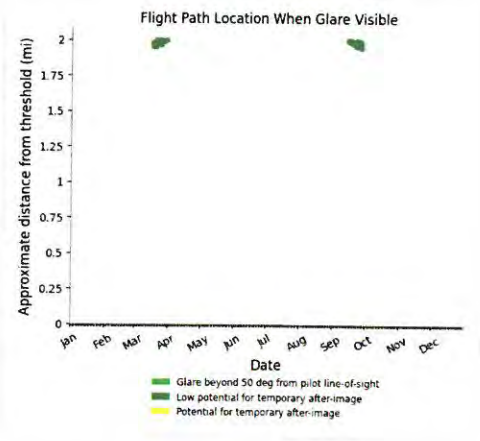
0 minutes of yellow glare
0 minutes of green glare

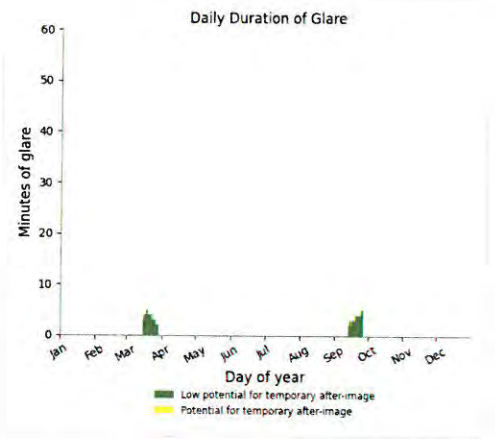
Flight Path: Rwy 30

0 minutes of yellow glare

93 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86660 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	67	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

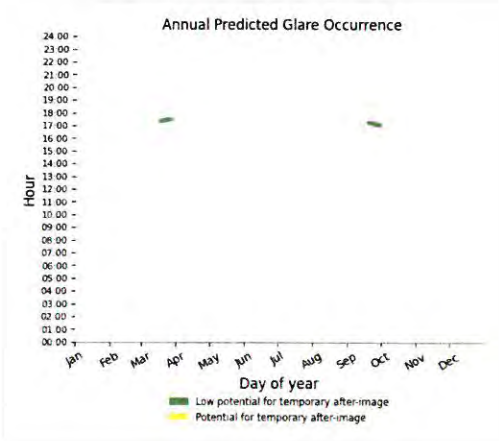
Flight Path: Rwy 17

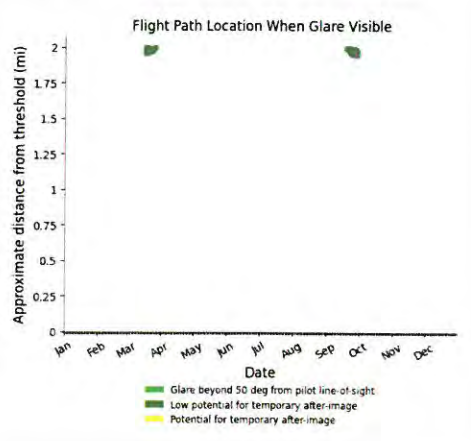
0 minutes of yellow glare
0 minutes of green glare

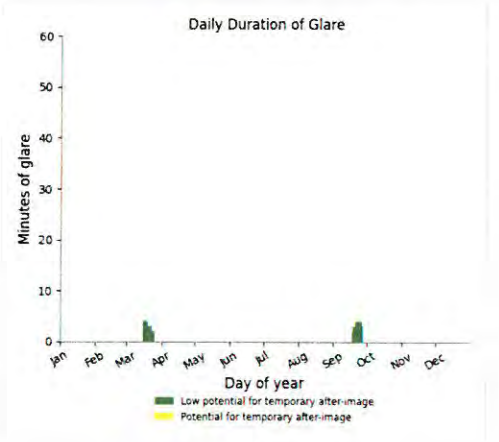
Flight Path: Rwy 30

0 minutes of yellow glare

67 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86684 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	32	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

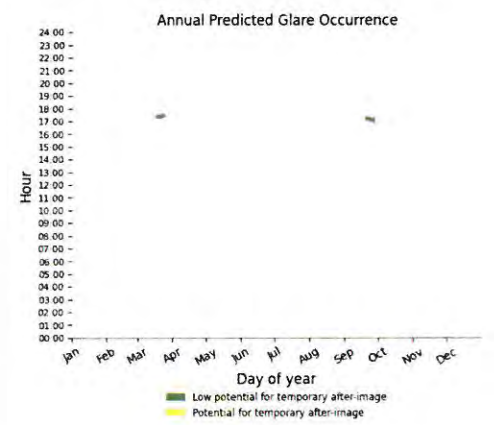
Flight Path: Rwy 17

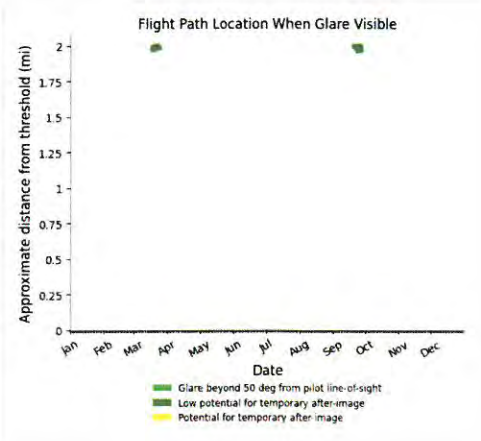
0 minutes of yellow glare
0 minutes of green glare

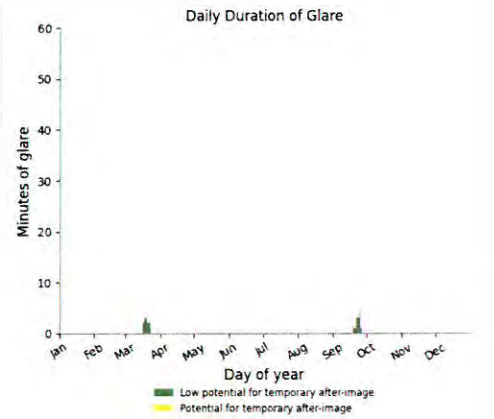
Flight Path: Rwy 30

0 minutes of yellow glare

32 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86744 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	53	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

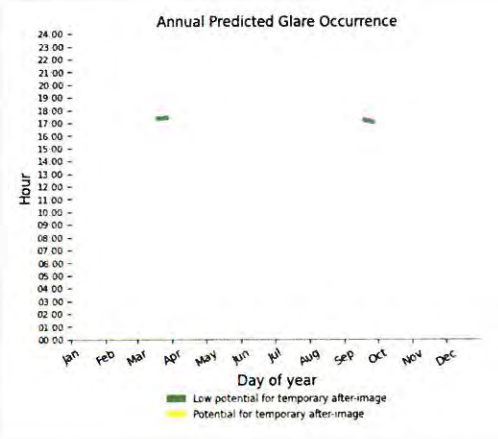
Flight Path: Rwy 17

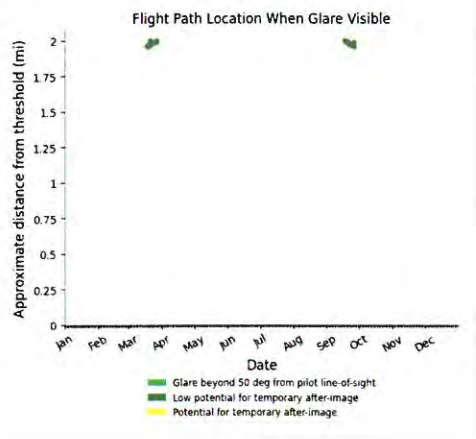
0 minutes of yellow glare
0 minutes of green glare

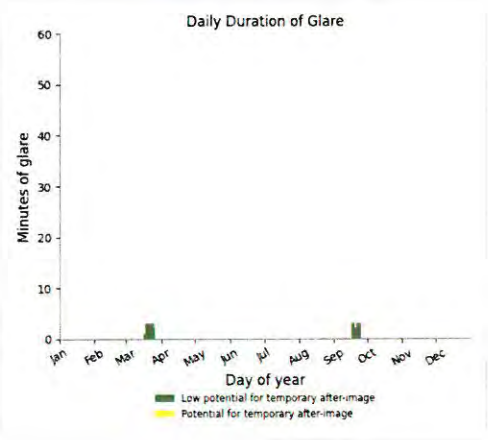
Flight Path: Rwy 30

0 minutes of yellow glare

53 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86804 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	0	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 17

0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86814 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	727	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

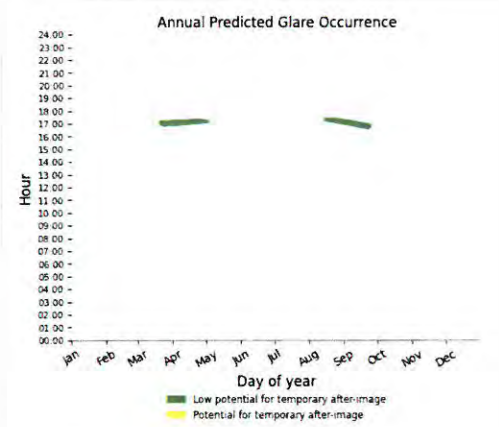
0 minutes of yellow glare
0 minutes of green glare

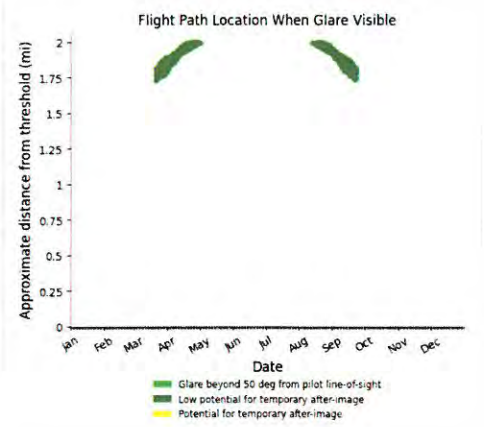
Flight Path: Rwy 17

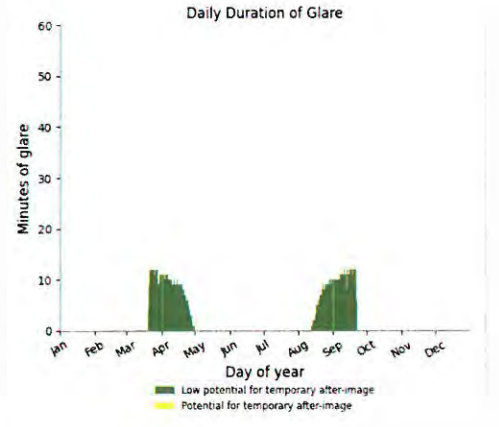
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
727 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86862 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	430	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

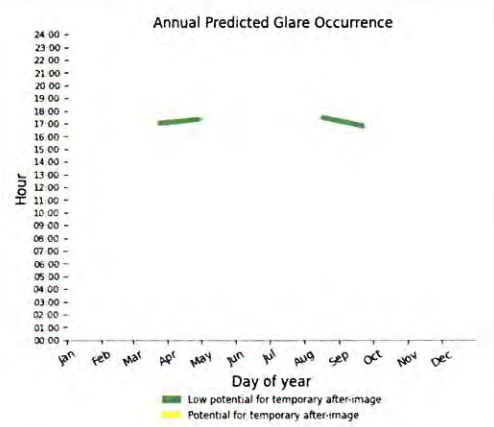
Flight Path: Rwy 17

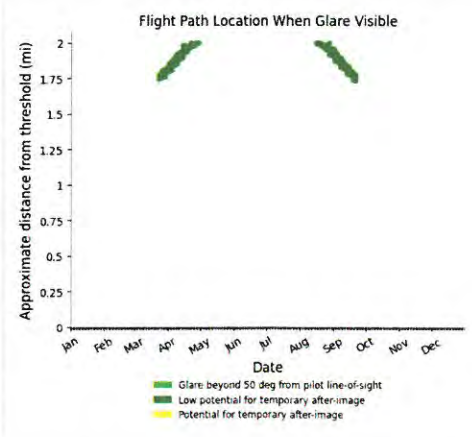
0 minutes of yellow glare
0 minutes of green glare

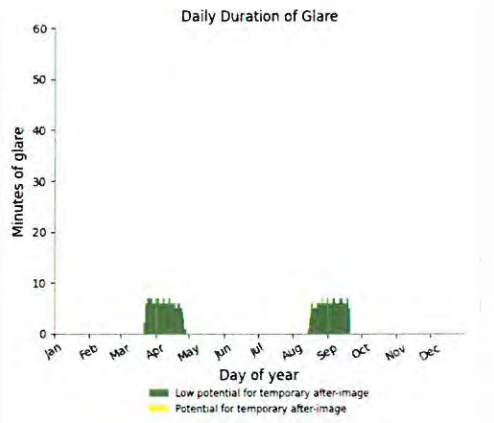
Flight Path: Rwy 30

0 minutes of yellow glare

430 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86912 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	29	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

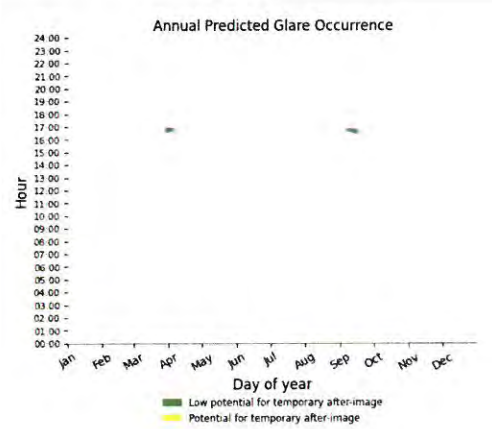
Flight Path: Rwy 17

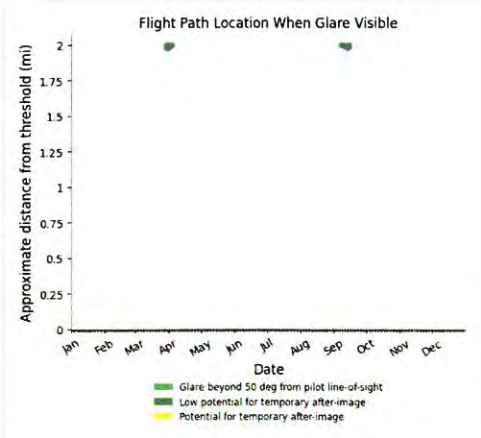
0 minutes of yellow glare
0 minutes of green glare

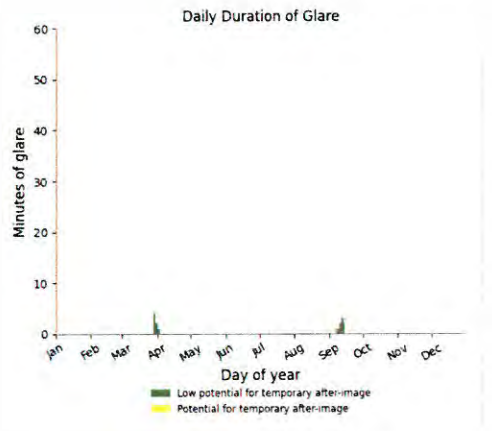
Flight Path: Rwy 30

0 minutes of yellow glare

29 minutes of green glare







Flight Path: Rwy 35

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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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

CHAIR
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Lake Elsinore

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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

October 25, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1068TH22
Related File No.:	BRS2202674 (Building Permit)
APN:	759-200-015

Dear Mr. Shahrouri:

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 Riverside County Building and Safety Case No. BRS2202674 (Building Permit), a proposal to construct a 597.4 square foot rooftop solar panel system on a proposed residence located at 86876 Roger Way within the Thermal Motorclub.

The site is located within Airport Compatibility Zone C of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone C of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less. The proposed rooftop solar panels will not generate any density.

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 5,141 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 –86 feet below MSL. The site's elevation is -149.5 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -107.5 feet AMSL. Therefore, review by the FAA OES was not required.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 597.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 181 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 70 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 5 degrees and orientation of 181 degrees. Solar panels shall be limited to a total of 597.4 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

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: Fullerton Architects, P.C. (applicant/representative)
JTM Land Co. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1068TH22\ZAP1068TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

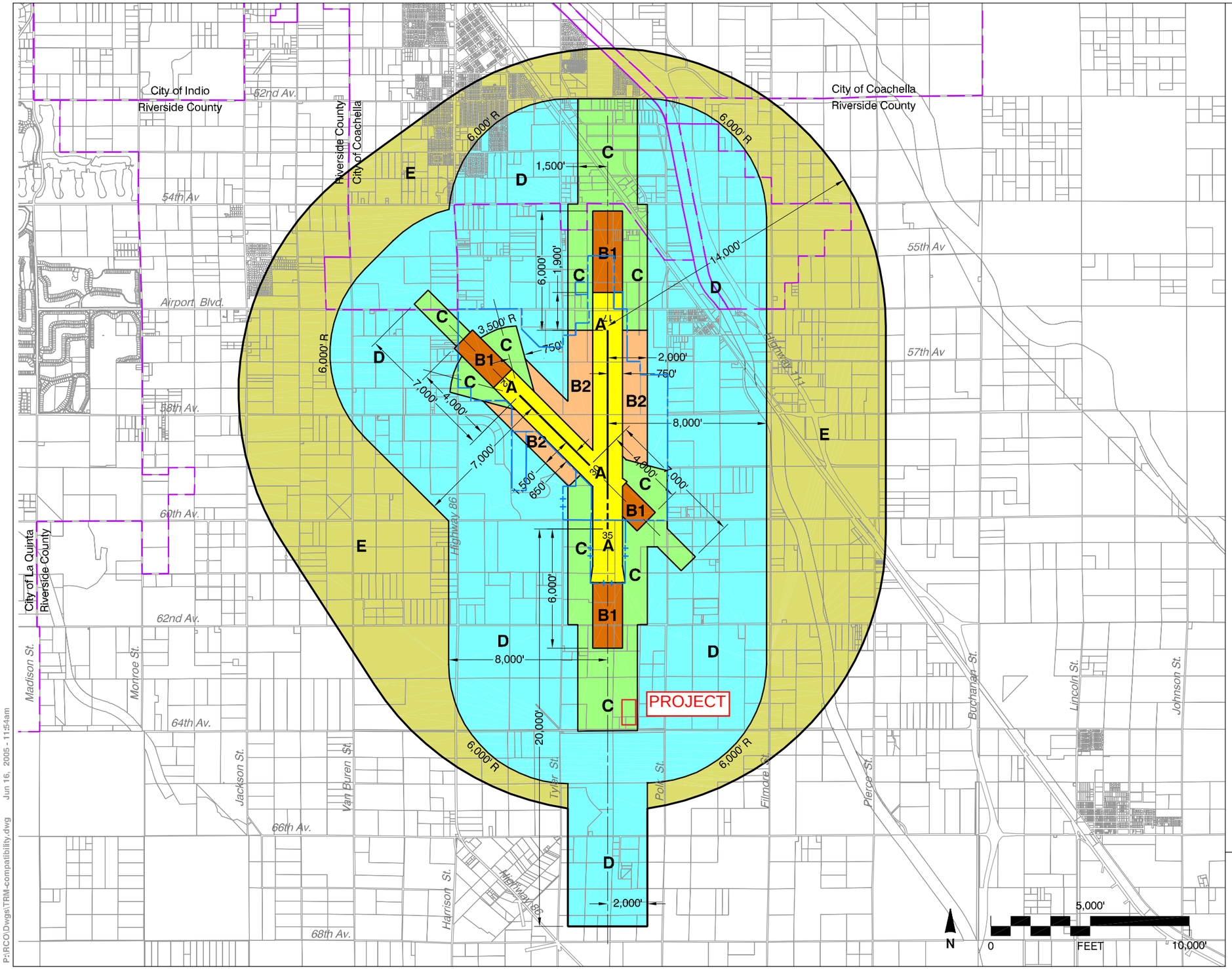
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

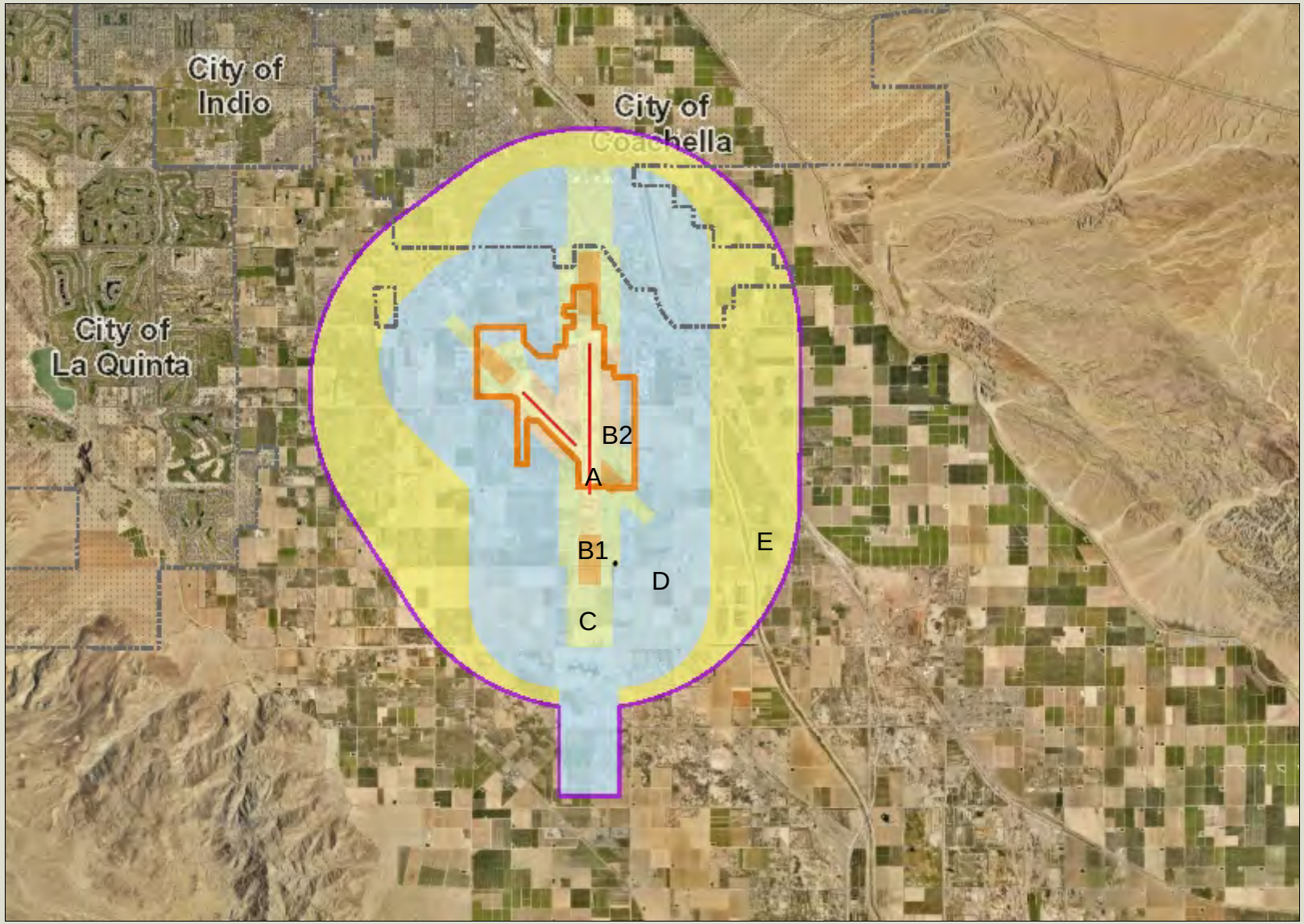
Map JC-1

Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 12,314 24,629 Feet

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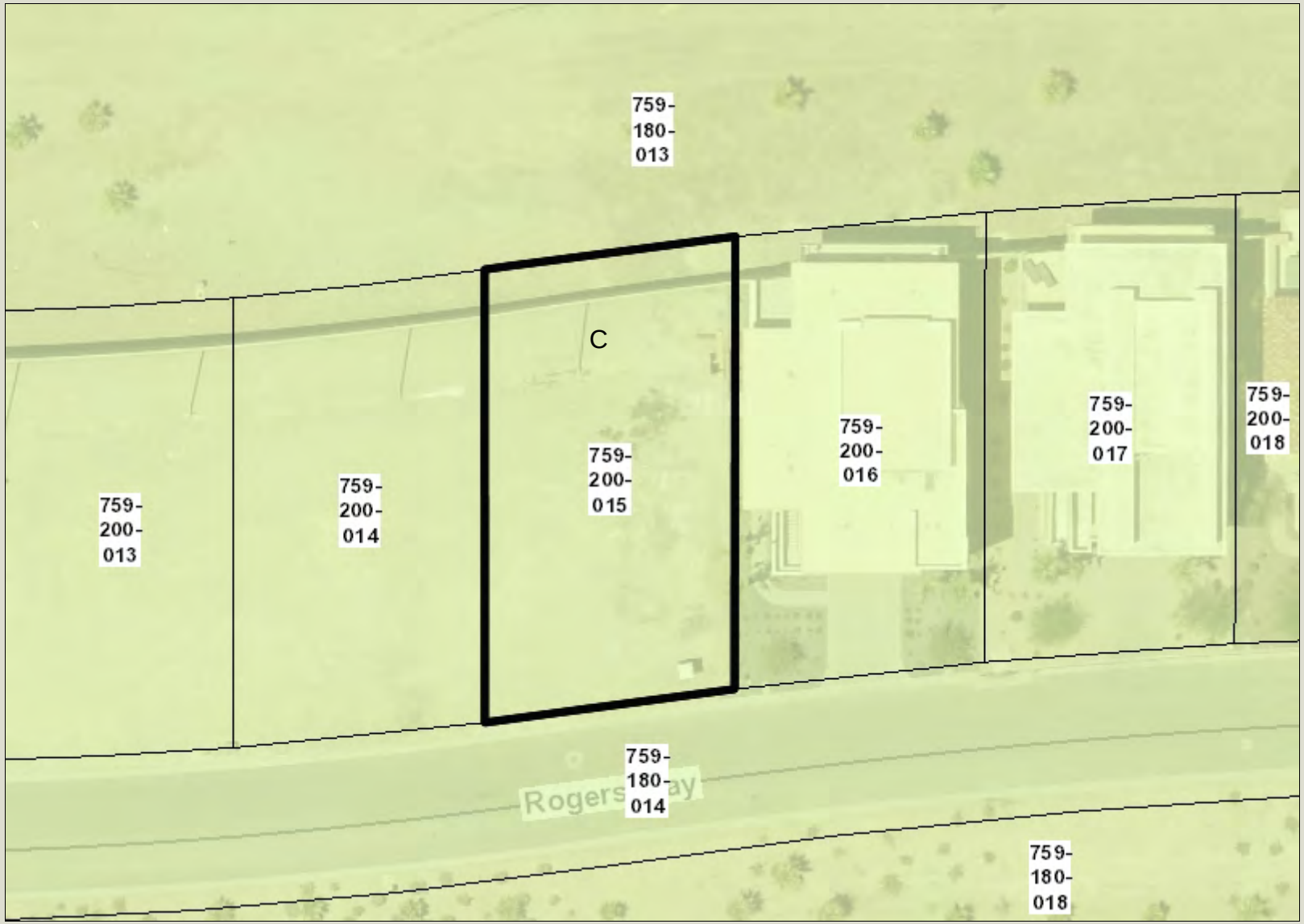
Notes

Map My County Map



Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 48 96 Feet

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Notes

Map My County Map

Legend

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

0 48 96 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 3,079 6,157 Feet

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Notes

Map My County Map

Legend

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

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0 1,539 3,079 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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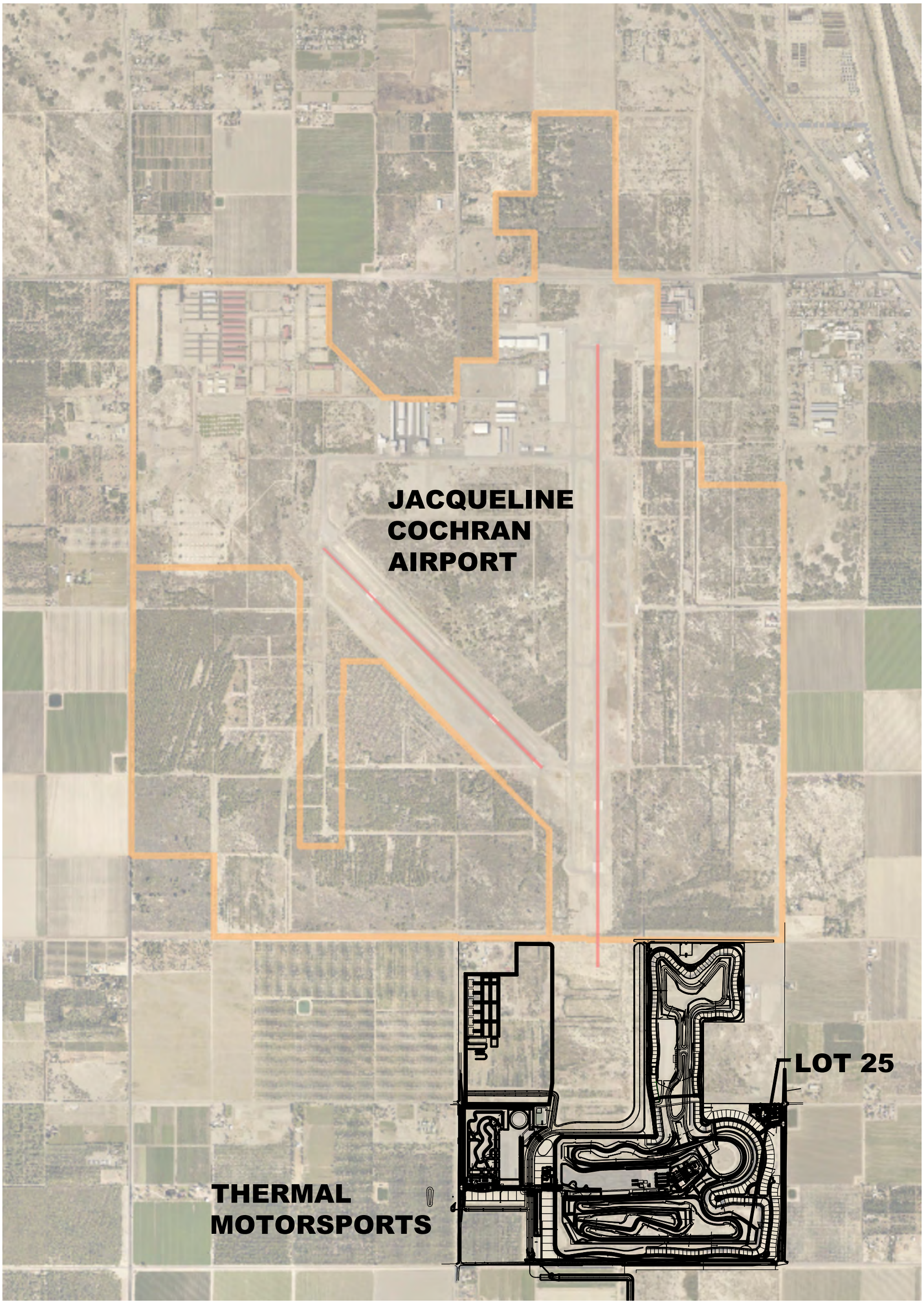
Notes



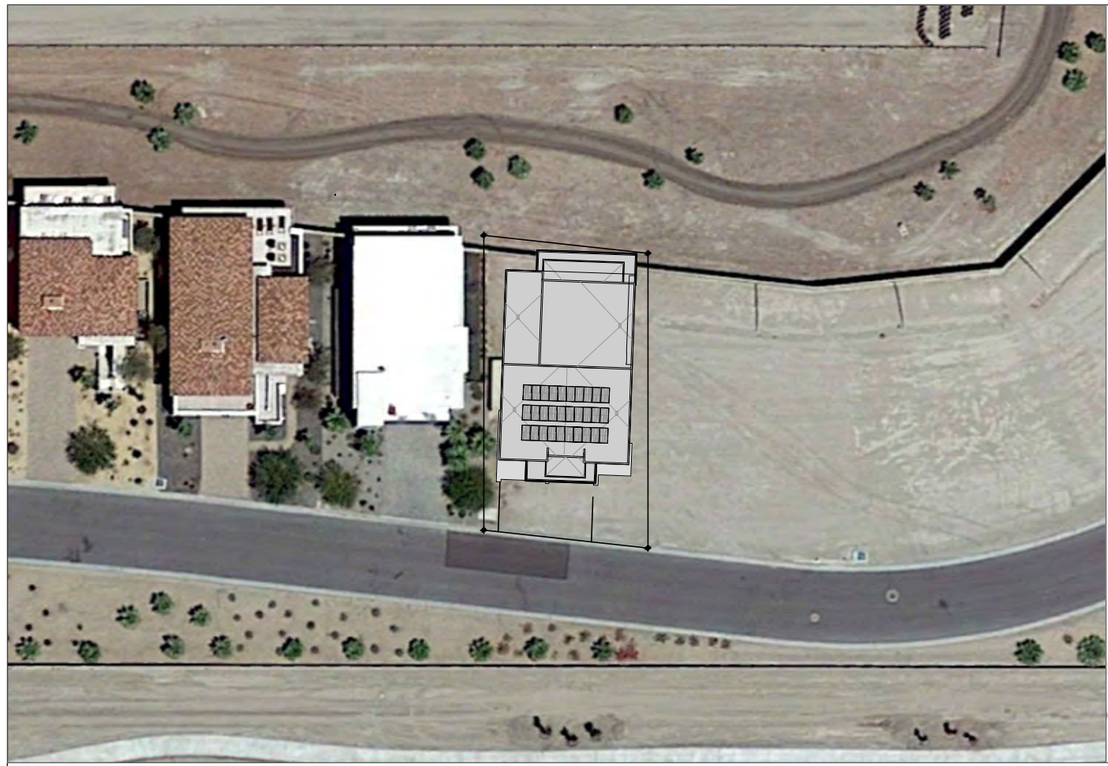
0 750 1500
FEET

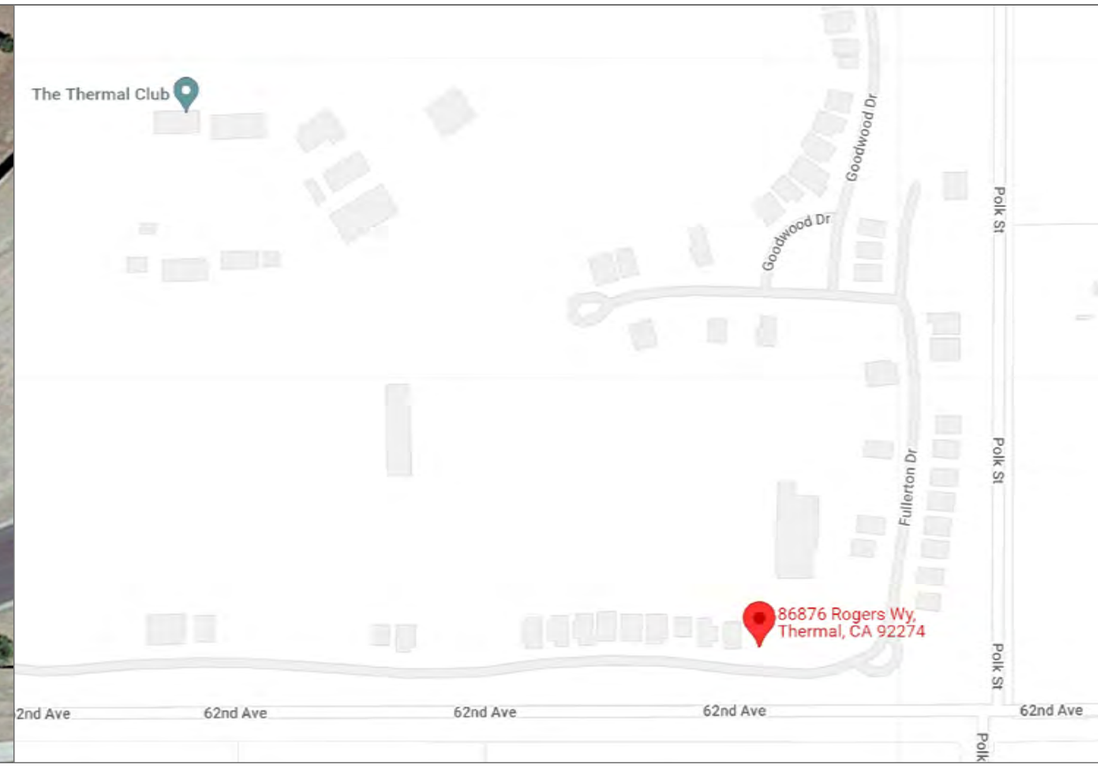
PLAN NORTH

N

1 SITE PLAN

SCALE: 1"= 1,500'





Revisions:	Date:
Rev A	10/6/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

GENERAL NOTES:

1. ALL ELECTRICAL WORK TO BE INSTALLED BY A QUALIFIED LICENSED ELECTRICIAN AND APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN.
2. ALL SOLAR MODULES SHALL BE UL LISTED 1703 AND CEC APPROVED. ALL INVERTERS SHALL BE UL LISTED 1741SA CERTIFIED AND CEC APPROVED. ALL ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED AND APPROVED FOR IT'S PURPOSE AND INSTALLED IN A WORKMAN LIKE MANNER. ALL OUTDOOR EQUIPMENT SHALL MEET APPROPRIATE NEMA STANDARDS.
3. THIS SYSTEM IS INTENDED TO BE OPERATED IN PARALLEL WITH THE UTILITY SERVICE PROVIDER. ANTI-ISLANDING PROTECTION IS A REQUIREMENT OF UL1741 AND IS INTENDED TO PREVENT THE OPERATION OF THE PHOTOVOLTAIC SYSTEM WHEN THE UTILITY GRID IS NOT IN OPERATION.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE LOCAL UTILITY SERVICE PROVIDER.
5. THE METHOD OF MOUNTING SHALL BE DONE IN ACCORDANCE WITH THE RACKING MANUFACTURER TO MEET DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREMENTS. PHOTOVOLTAIC MODULES WILL BE SECURED AND MOUNTED ON THE ROOF AS SPECIFIED ON THE STRUCTURAL SHEETS. EXISTING ROOF EQUIPMENT WILL NOT BE EFFECTED BY THE PHOTOVOLTAIC SYSTEM OR INSTALLATION.
6. ALL FASTENERS SHALL BE CORROSION RESISTANT APPROPRIATE FOR THE SITE CONDITIONS.
7. ALL ROOFING REPAIRS MUST MAINTAIN EXISTING CLASS AND TYPE OF ROOF AND ALL WORK SHALL BE IN ACCORDANCE WITH THE ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
8. TO BE INSTALLED IN SUCH A MANNER THAT IS DISCREET AND DOES NOT DETRACT FROM THE HOMES ARCHITECTURE

DESCRIPTION OF WORK:

ROOF MOUNTED PHOTOVOLTAIC (SOLAR ELECTRIC) INSTALLATION TILT MOUNTED @ 5° FACING AN AZIMUTH OF 181° CONSISTING OF (30) PANASONIC EVPV400H - 400 WATT MODULES (12.0Kw).

RACK MOUNTING SYSTEM IS UNIRAC SOLARMOUNT ALUMINUM SUPPORT RAILS AND FAST JACK SOLAR STANCHIONS.

INSTALLATION SHALL COMPLY WITH THE FOLLOWING CODES:

CEC 2019 - ARTICLE 690, 705,706 AND OTHERS NEC 2020 705.13
CPC 2019
CBC 2019
CMC 2019
CFC 2019

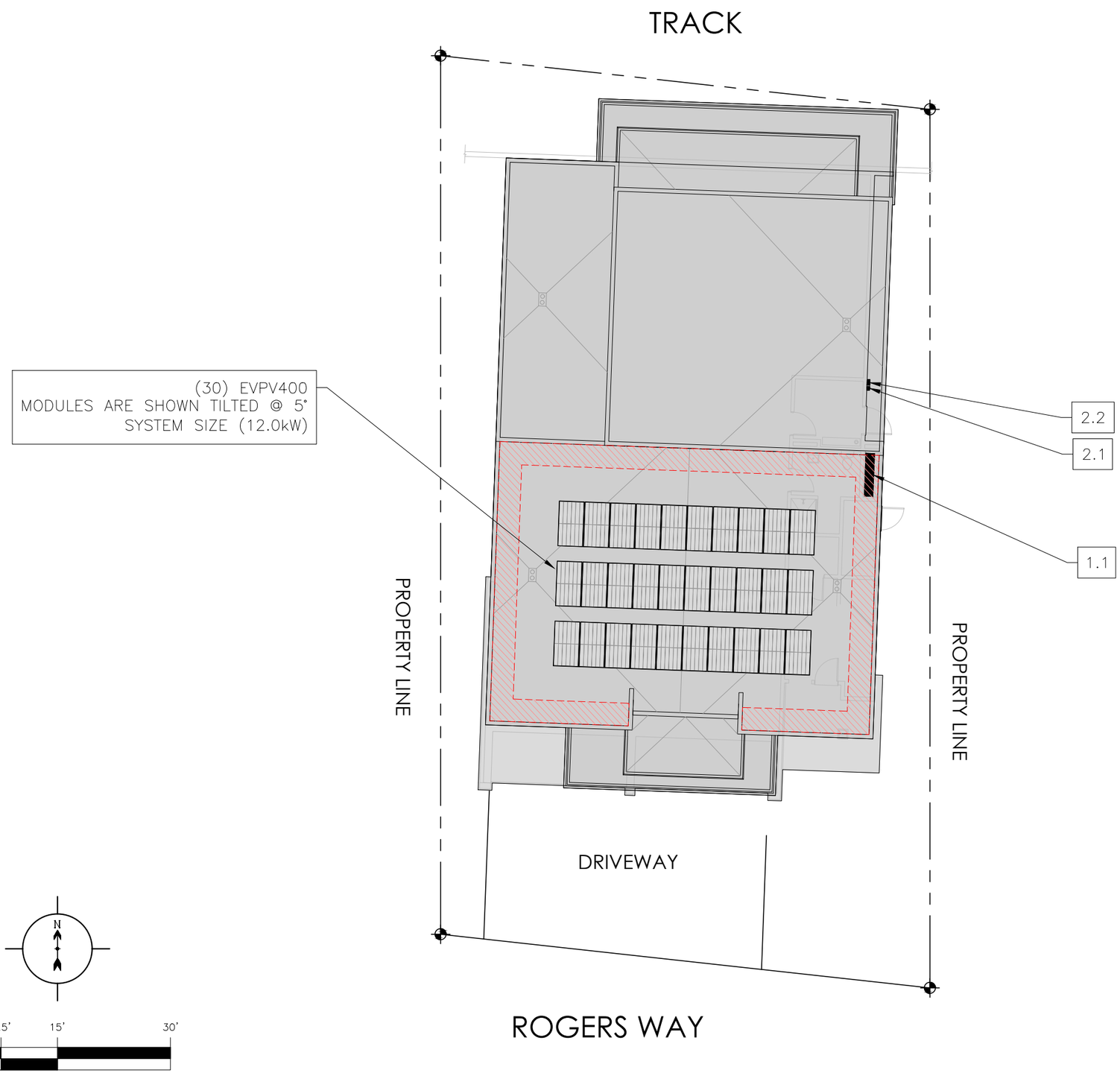
DRAWING SHEETS:

COVER SHEET	PV-0.0
SITE PLAN	PV-1.0
ROOF PLAN	PV-2.0
SINGLE LINE DIAGRAM	PV-3.0
MOUNTING DETAIL	PV-4.0
WARNING LABELING	PV-5.0

SPECIFICATION SHEETS:
EVPV400H MODULE
SE11400H-US INVERTER
UNIRAC CERTIFICATION

Title: Thermal Lot 25
COVER SHEET
86876 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 9/24/2020
Scale: NTS
Job Number: 22195
Sheet Number:
PV-0.0
Sheet



SITE PLAN KEYNOTE:

EXISTING ELECTRICAL

1.1 600A MAIN ELECTRICAL PANEL

NEW ELECTRICAL
(ADJACENT TO MSP)

2.1 SYSTEM AC DISCONNECT
2.2 SE11400H-US PV INVERTER

SITE LEGEND

FIRE EASEMENT/ACCESS

EAVE SETBACK/WALL

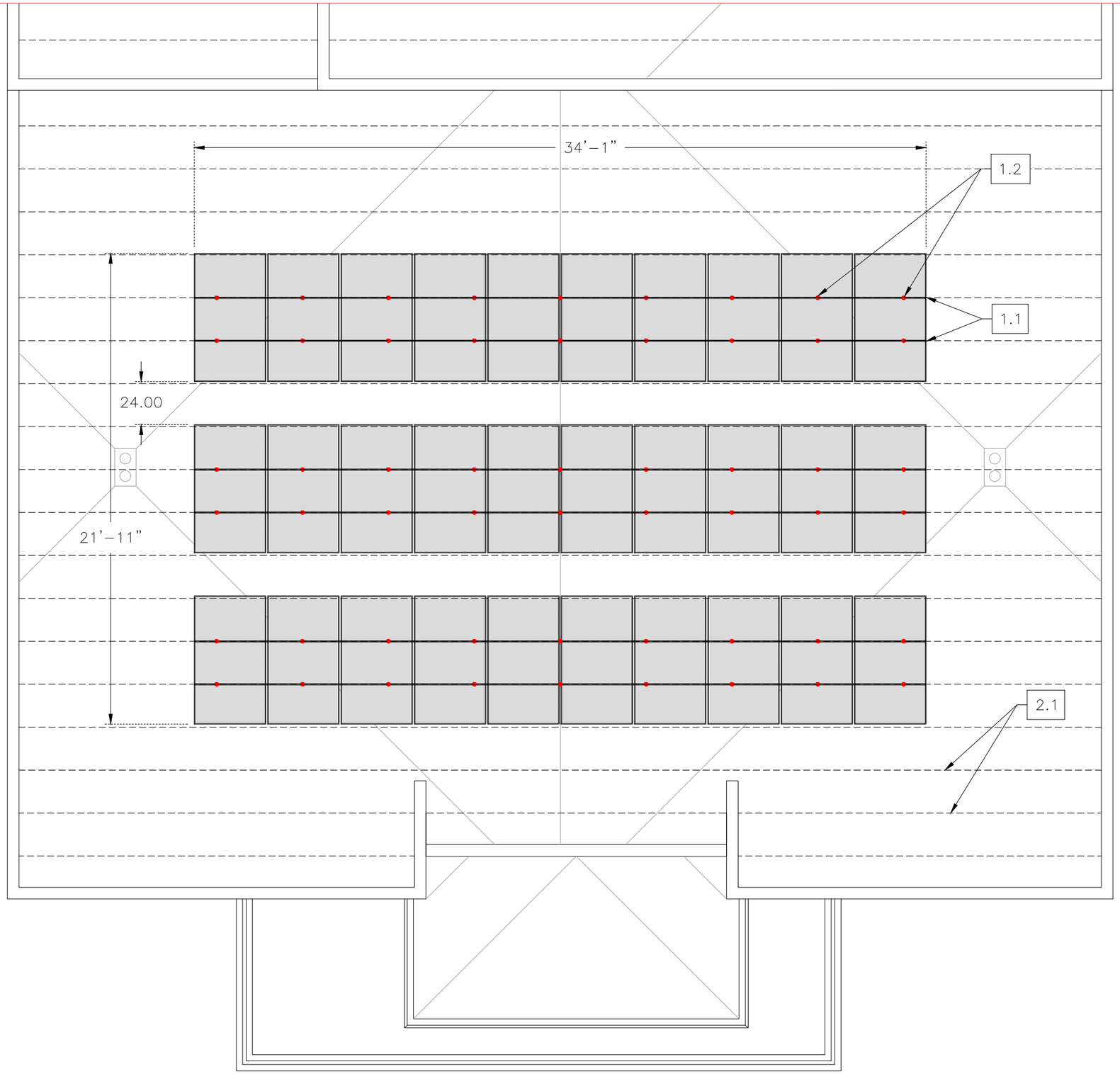
Revisions:	Date:
Rev A	10/6/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 25
SITE PLAN
86876 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 9/24/2020
Scale: 1" = 15'
Job Number: 22195
Sheet Number:
PV-1.0
Sheet



NO ROOF VENTS, ATTIC VENTS OR OTHER NECESSARY BUILDING COMPONENTS MAY BE COVERED OR ALTERED BY THE INSTALLATION OF THE NEW PV ARRAY

MOUNT PLAN KEYNOTE:

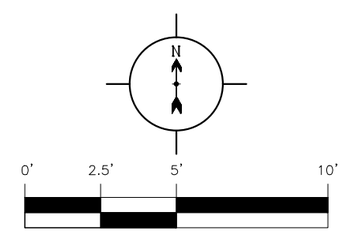
RACK MOUNT COMPONENTS

1.1 UNIRAC ALUMINUM SUPPORT RAIL
1.2 FAST JACK SOLAR STANCHIONS

STRUCTURAL

2.1 ROOF SUPPORTS 16" TJI 210 @ 24" O.C TYP.

1. VERIFY RAFTER SPACING IN THE FIELD BEFORE ATTACHING MOUNTS ROOF.
2. ENSURE THAT MOUNTING LAGS PENETRATE CENTER OF RAFTERS AND MAKE STRUCTURAL CONNECTION TO THE RAFTERS.
3. STRUCTURAL CONNECTION TO ENGINEERED TRUSS SHALL BE MADE BY 3-1/2" X 5/16" STAINLESS STEEL LAG SCREWS 3" MIN. EMBEDMENT.
4. ALL MOUNTS SHALL BE 20" FROM ALL VALLEYS.
5. PHOTOVOLTAIC MODULES SHALL HAVE 1.8 MOUNTS (LAG SCREWS) PER PANEL.
6. (E) ROOF STRUCTURE IS FLAT 16" TJI 210 @ 24" O.C TYP.
7. (E) ROOFING MATERIAL IS 1 LAYER OF TPO OVER 1 LAYER OF 30LB. FELT PAPER AND 1/2" OSB PLYWOOD DECKING.
8. MODULE DIMENSIONS 71.4" x 40.0"



48" SPACING BETWEEN MOUNTS IS TYPICAL - MAX SPAN 6'

Analysis of dead load weight added to roof by installation of solar array

Array #1

Panasonic EVPV400H	45.00	pounds		
No. of solar modules	30			
Total weight of modules	1,350	pounds		
Weight of each Solar Rack set	10	pounds		
No. of rack sets	30.0			
Total weight of rack sets	267	pounds		
Total weight of solar array	1,637	pounds	1.8	mounts per module
Height of each module	5.98	feet	3.6	lags per module with tile hooks
Width of each module	3.33	feet		
Area of one module	19.9	square feet		
Area of entire solar array	597.4	square feet		
Weight of solar array per unit area of roof	2.7	pounds/square foot		
No. of stanchions connected to roof joist rafters	54			
Weight loading per stanchion	30.3	pounds/connection		

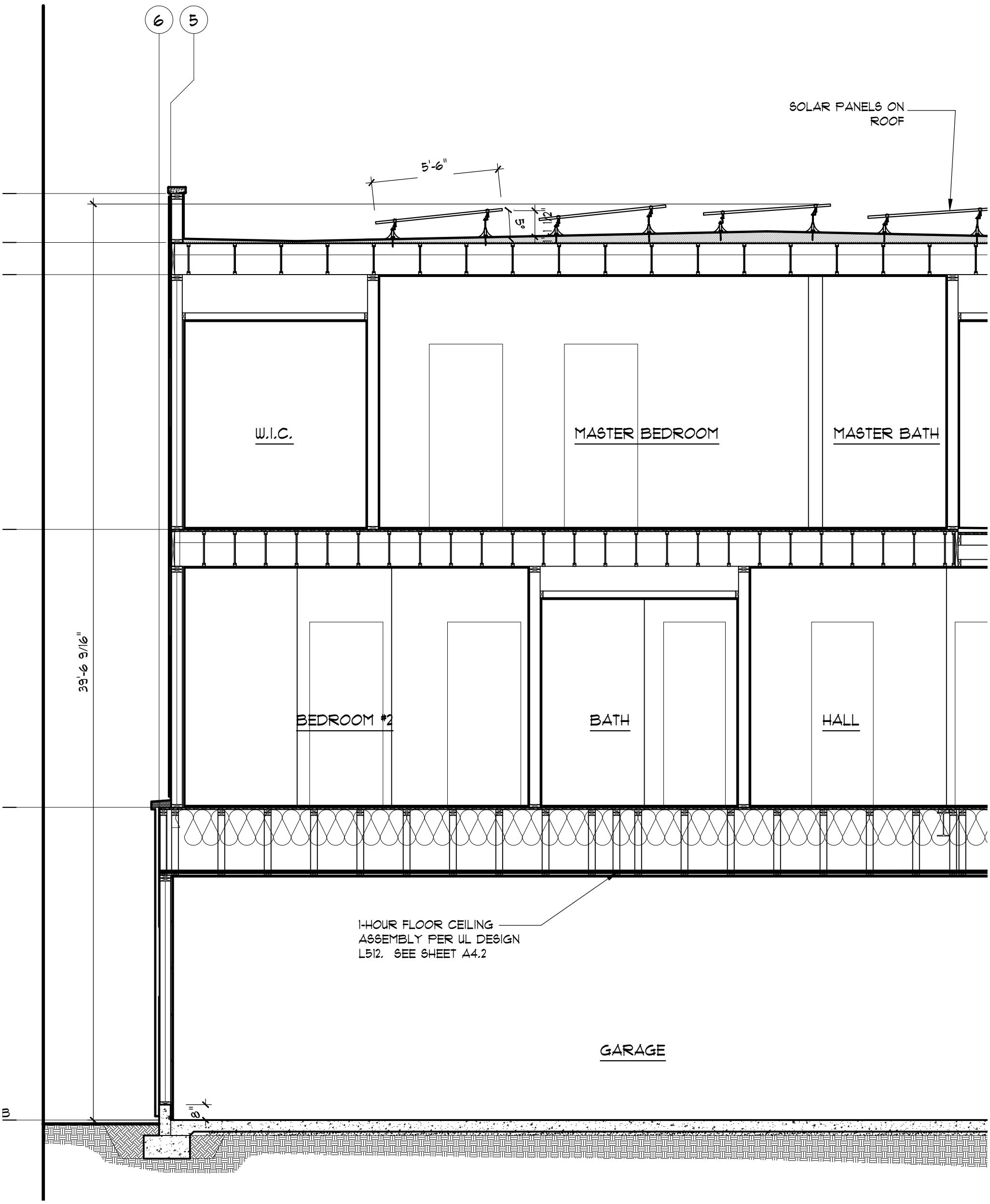
Revisions:	Date:
Rev A	10/6/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 25
ROOF PLAN
86876 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 9/24/2020
Scale: 1" = 5'
Job Number: 22195
Sheet Number: PV-2.0
Sheet



1 PARTIAL BUILDING SECTION

SCALE: 1/4"= 1'-0"

THERMAL MOTORSPORTS - LOT 82

FORGESOLAR GLARE ANALYSIS

Project: **Riverside Co Residential**
Four rooftop PV arrays near KTRM airport, Thermal CA

Site configuration: **4 homes - Lots 15 25 42 93 - 17 Oct 2022**
Analysis conducted by Dave Belote (dave@darestrategies.com) at 16:41 on 17 Oct, 2022.

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: 77735.8001
Methodology: V1

PV Array(s)

Name: 60933 Watkins Glen Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.606283	-116.151325	-147.39	39.71	-107.68
2	33.606285	-116.151252	-147.46	39.71	-107.75
3	33.606385	-116.151257	-147.50	40.21	-107.29
4	33.606382	-116.151331	-147.47	40.21	-107.26

Name: 86756 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.599010	-116.150892	-150.22	40.21	-110.01
2	33.598945	-116.150890	-150.95	39.71	-111.24
3	33.598948	-116.150791	-150.15	39.71	-110.44
4	33.599014	-116.150792	-148.99	40.21	-108.79

Name: 86876 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 181.0°
Rated power: 12.0 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	33.599003	-116.148748	-146.47	40.21	-106.26
2	33.598943	-116.148750	-147.69	39.71	-107.98
3	33.598937	-116.148677	-147.60	39.71	-107.89
4	33.599000	-116.148673	-147.27	40.21	-107.06

Name: 86909 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 183.0°
Rated power: 12.0 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	33.601326	-116.148475	-152.91	40.21	-112.70
2	33.601267	-116.148477	-152.48	39.71	-112.77
3	33.601264	-116.148374	-151.66	39.71	-111.95
4	33.601323	-116.148373	-152.04	40.21	-111.83

Flight Path Receptor(s)

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	33.630183	-116.171005	-117.94	50.00	-67.94
Two-mile	33.650628	-116.195587	-80.78	566.27	485.49

Name: Rwy 17
Description:
Threshold height: 50 ft
Direction: 180.2°
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	33.639142	-116.156425	-115.33	50.00	-65.33
Two-mile	33.668054	-116.156286	-91.22	579.32	488.10

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	33.620459	-116.159390	-132.29	50.00	-82.29
Two-mile	33.600014	-116.134810	-157.22	628.35	471.14

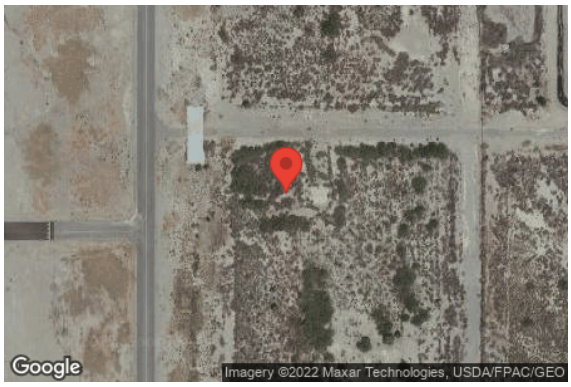
Name: Rwy 35
Description:
Threshold height: 50 ft
Direction: 0.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.615802	-116.156431	-139.06	50.00	-89.06
Two-mile	33.586890	-116.156552	-156.00	620.37	464.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.627040	-116.153590	-129.99	50.00

Map image of 1-ATCT



GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
60933 Watkins Glen Dr	5.0	178.0	930	0	25,910.0
86756 Rogers Way	5.0	178.0	53	0	25,920.0
86876 Rogers Way	5.0	181.0	70	0	25,920.0
86909 Newton Way	5.0	183.0	456	0	25,910.0

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1509	0
Rwy 35	0	0
1-ATCT	0	0

Results for: 60933 Watkins Glen Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	930	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

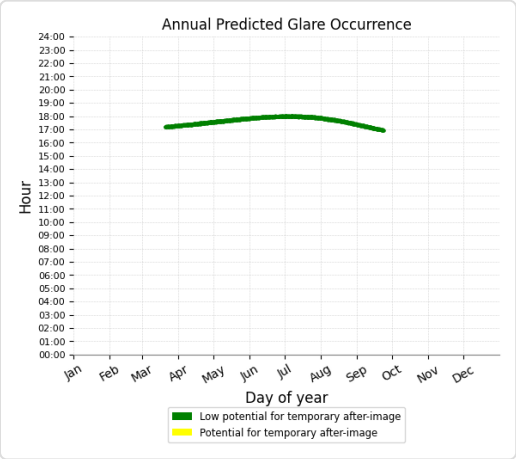
0 minutes of yellow glare
0 minutes of green glare

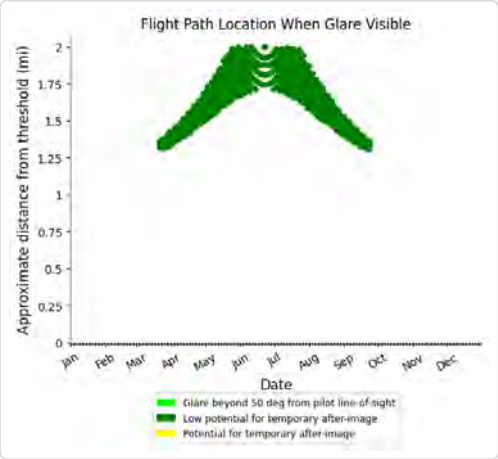
Flight Path: Rwy 17

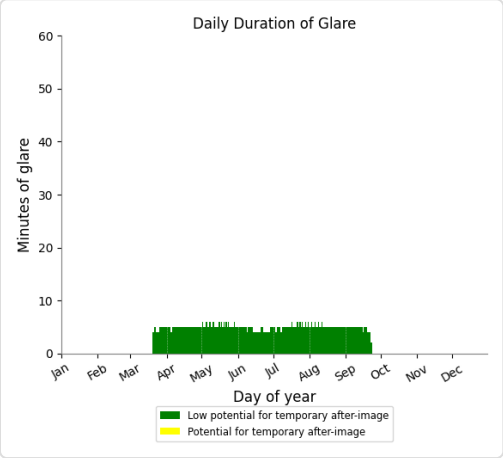
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
930 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86756 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	53	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

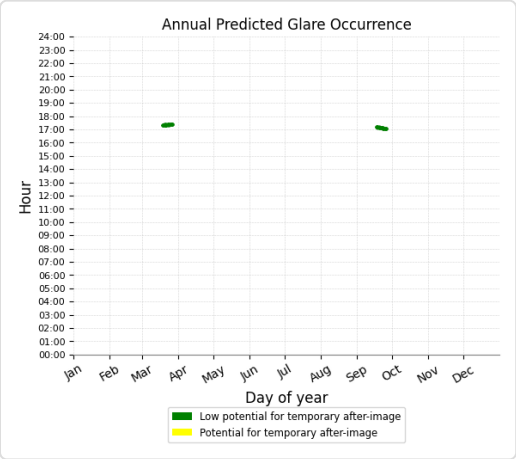
Flight Path: Rwy 17

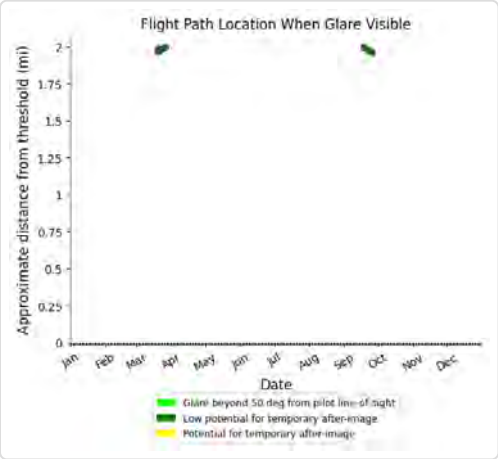
0 minutes of yellow glare
0 minutes of green glare

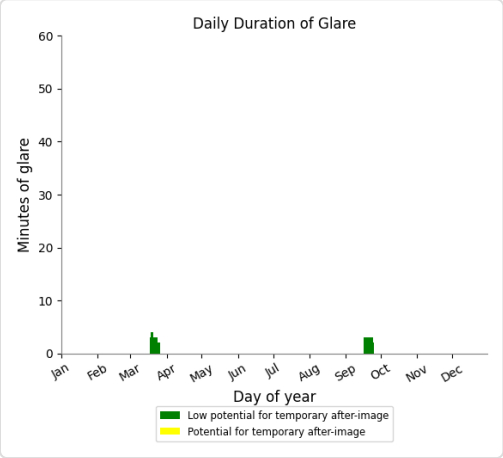
Flight Path: Rwy 30

0 minutes of yellow glare

53 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86876 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	70	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

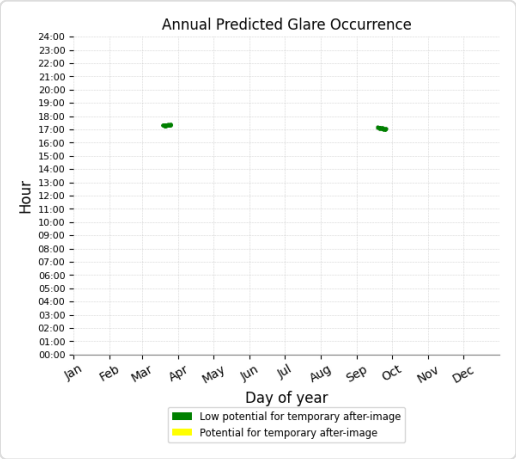
0 minutes of yellow glare
0 minutes of green glare

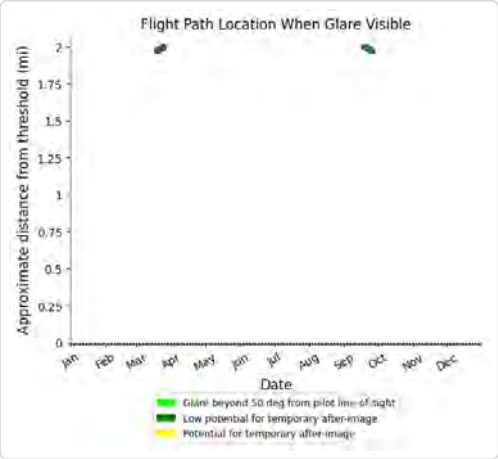
Flight Path: Rwy 17

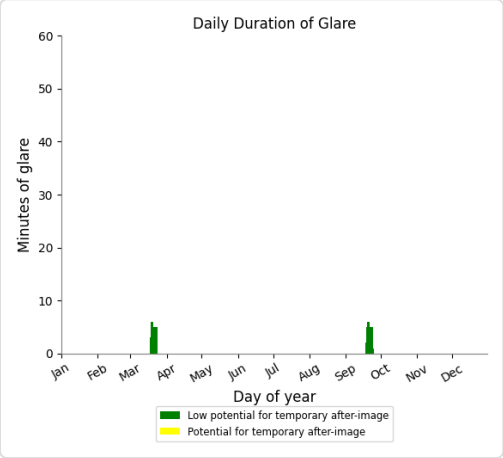
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
70 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86909 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	456	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

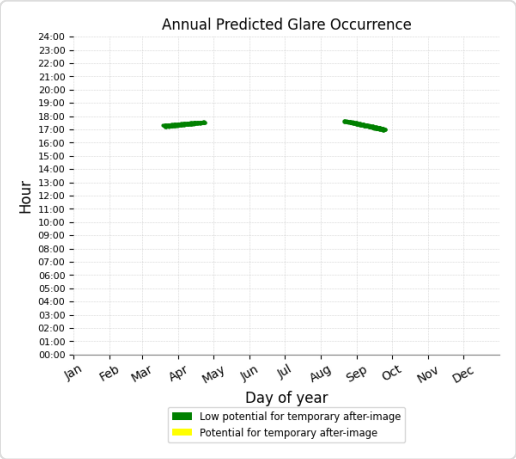
0 minutes of yellow glare
0 minutes of green glare

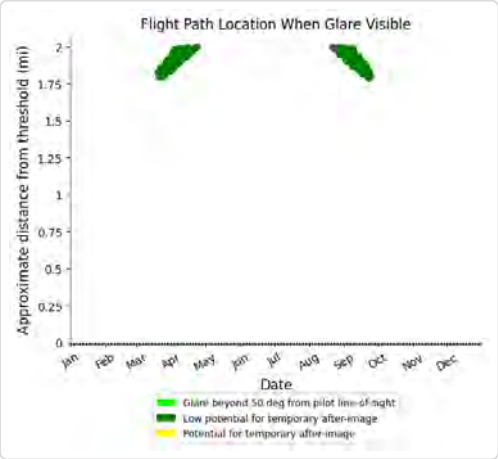
Flight Path: Rwy 17

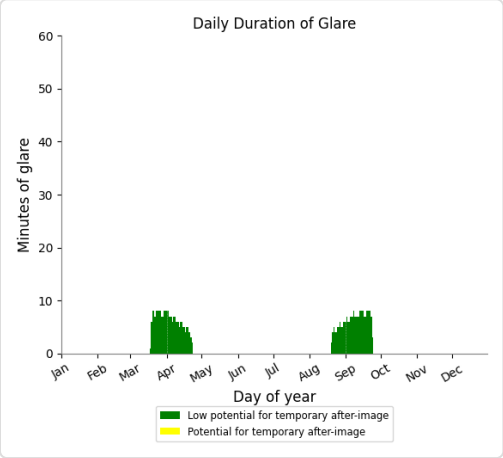
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
456 minutes of green glare







Flight Path: Rwy 35

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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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

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County Administrative Center
4080 Lemon St.,14th Floor.
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

October 25, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1069TH22
Related File No.:	BRS2202673 (Building Permit)
APN:	759-210-007

Dear Mr. Shahrouri:

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 Building and Safety Case No. BRS2202673 (Building Permit), a proposal to construct a 596.4 square foot rooftop solar panel system on a proposed residence located at 86756 Roger Way within the Thermal Motorclub.

The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less or 5.0 dwelling units per acre or more. The proposed rooftop solar panels will not generate any density.

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 3,563 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 –102 feet below MSL. The site's elevation is -148.7 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -106.7 feet AMSL. Therefore, review by the FAA OES was not required.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 178 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 53 minutes of "green" level glare, lasting up to 5 minutes a day from March to April and from September to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 5 degrees and orientation of 178 degrees. Solar panels shall be limited to a total of 596.4 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

5. Prior to building permit issuance, an application to the Federal Aviation Administration Obstruction Evaluation Service shall be made and a Determination of No Hazard to Air Navigation letter is issued in the event the building's top point elevation exceeds the FAA notification threshold of -102 below MSL.

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: Fullerton Architects, P.C. (applicant/representative)
JTM Land Co. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1069TH22\ZAP1069TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

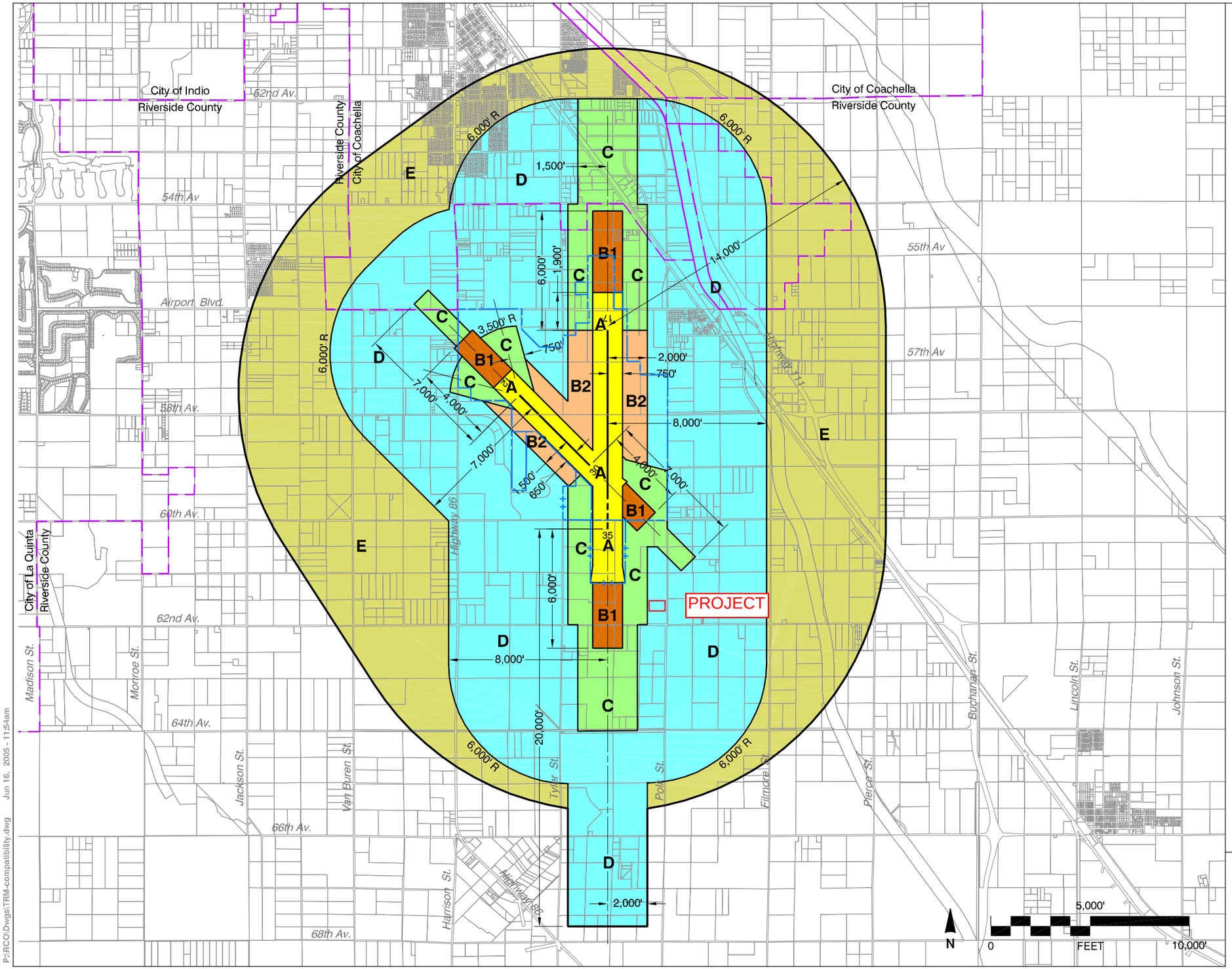
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

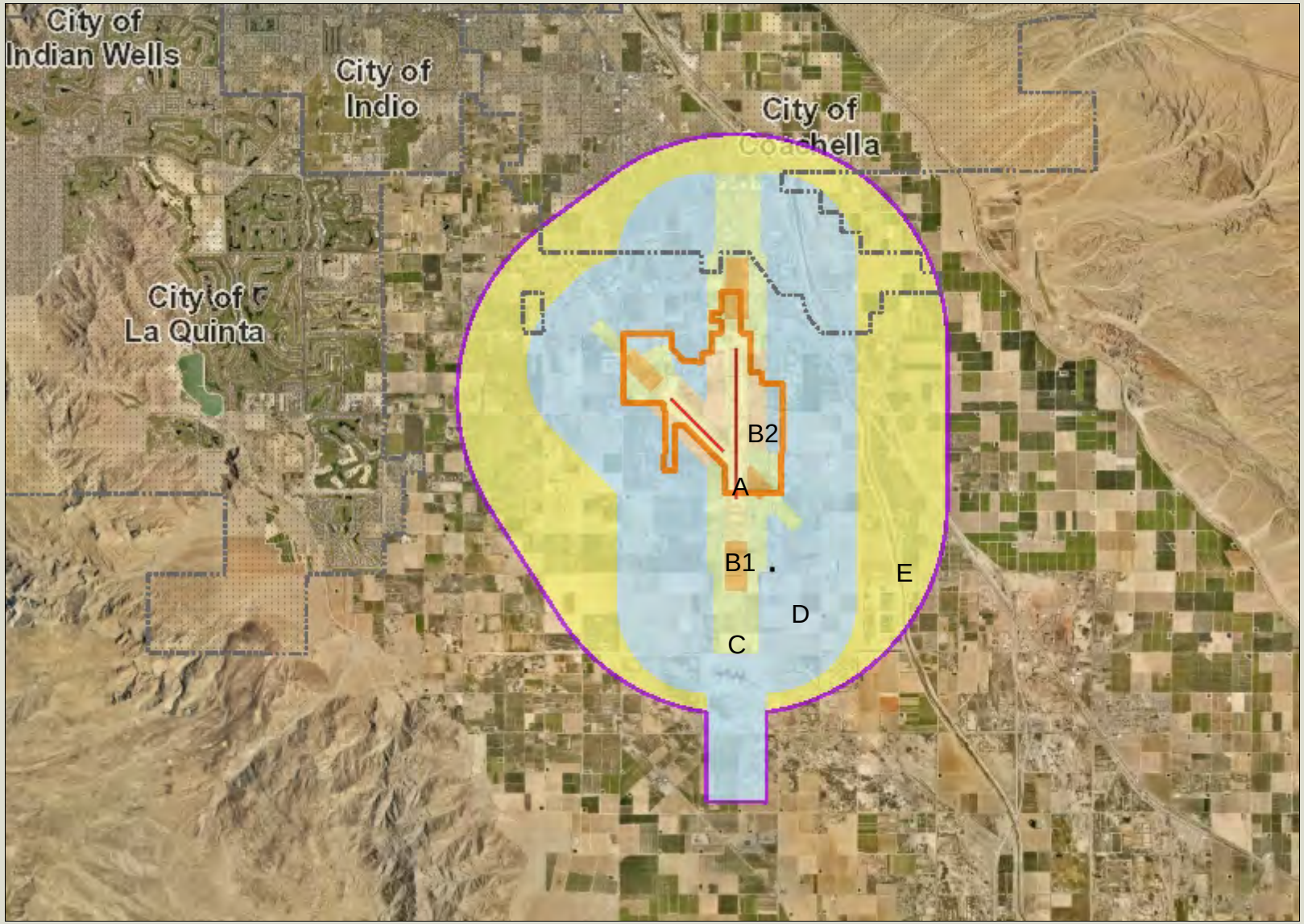
Map JC-1

Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 12,314 24,629 Feet

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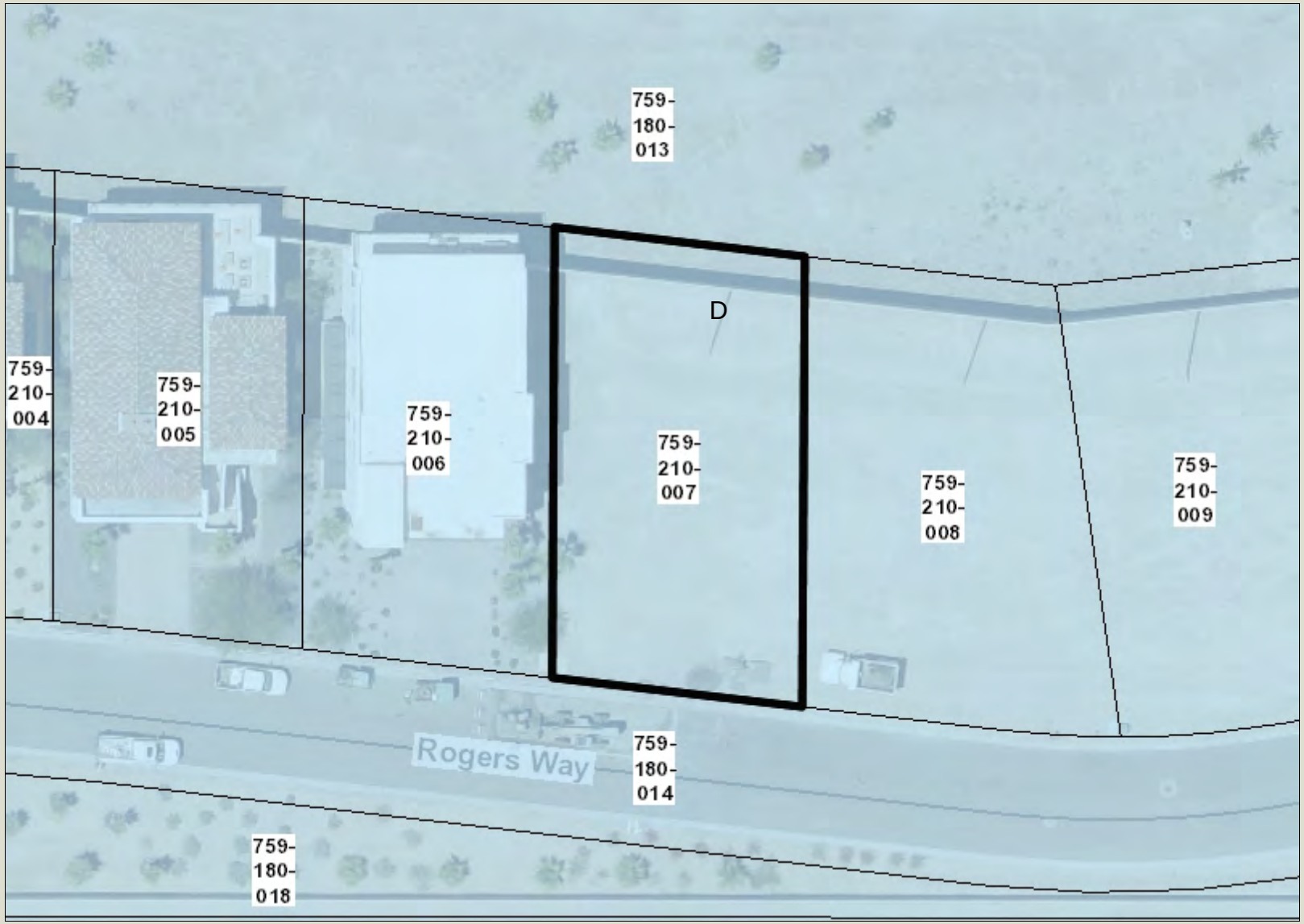
Notes

Map My County Map



Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 48 96 Feet

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Notes

Map My County Map

Legend

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

0 48 96 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 3,079 6,157 Feet

REPORT PRINTED ON... 10/25/2022 11:08:58 AM

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Notes

Map My County Map

Legend

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

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0 1,539 3,079 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 6,157 12,314 Feet

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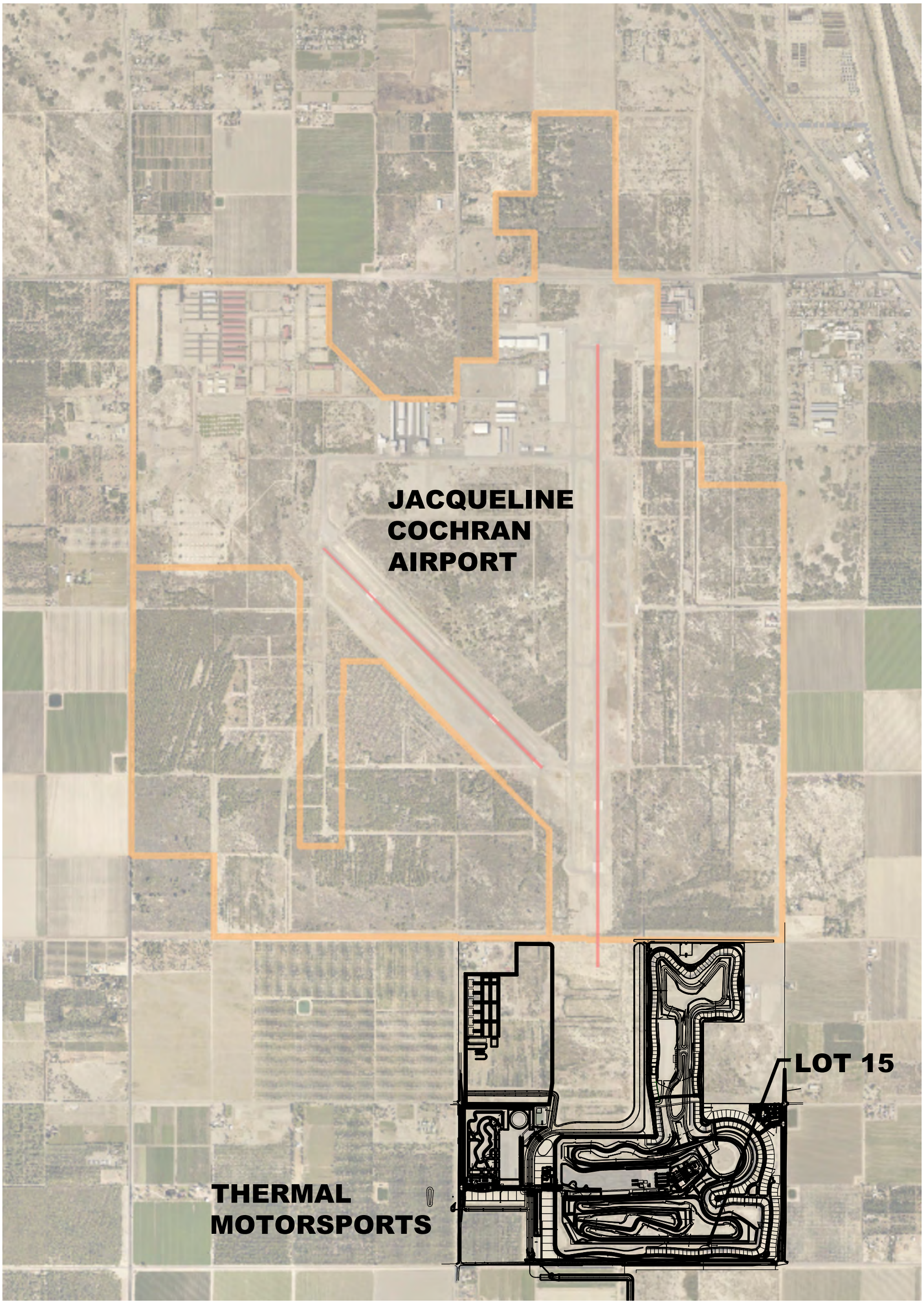
Notes



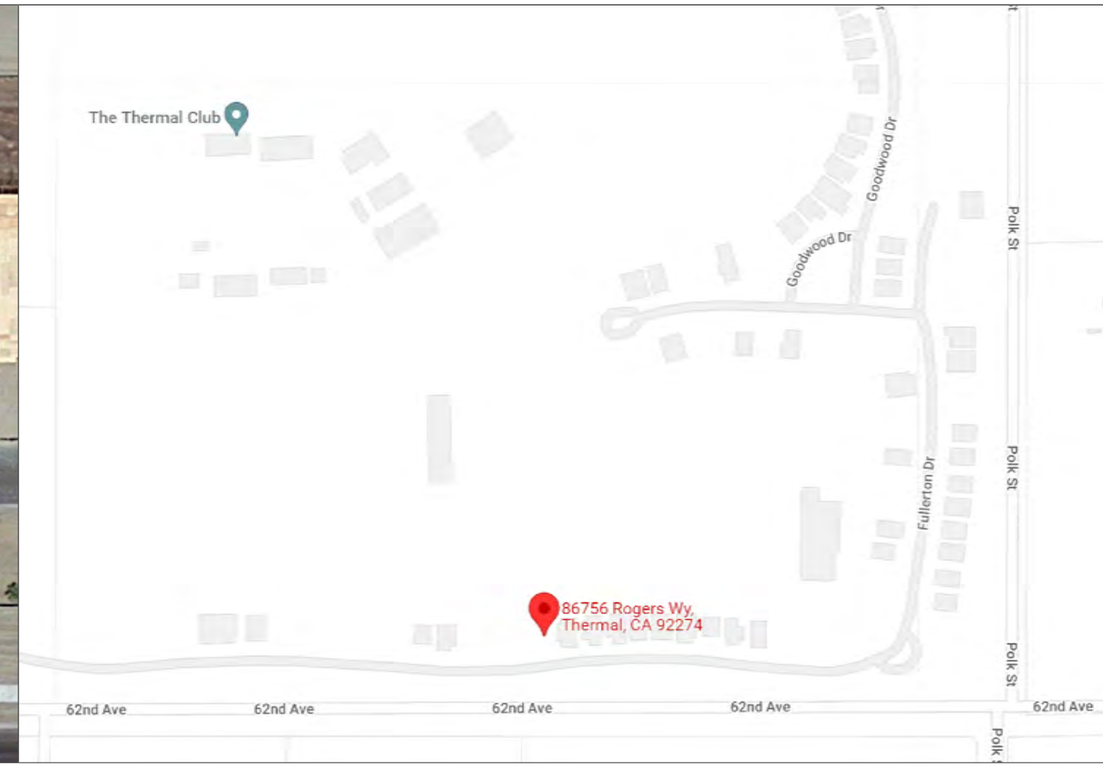
0 750 1500
FEET

PLAN NORTH

N

1 SITE PLAN

SCALE: 1"= 1,500'



Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

GENERAL NOTES:

1. ALL ELECTRICAL WORK TO BE INSTALLED BY A QUALIFIED LICENSED ELECTRICIAN AND APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN.
2. ALL SOLAR MODULES SHALL BE UL LISTED 1703 AND CEC APPROVED. ALL INVERTERS SHALL BE UL LISTED 1741SA CERTIFIED AND CEC APPROVED. ALL ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED AND APPROVED FOR IT'S PURPOSE AND INSTALLED IN A WORKMAN LIKE MANNER. ALL OUTDOOR EQUIPMENT SHALL MEET APPROPRIATE NEMA STANDARDS.
3. THIS SYSTEM IS INTENDED TO BE OPERATED IN PARALLEL WITH THE UTILITY SERVICE PROVIDER. ANTI-ISLANDING PROTECTION IS A REQUIREMENT OF UL1741 AND IS INTENDED TO PREVENT THE OPERATION OF THE PHOTOVOLTAIC SYSTEM WHEN THE UTILITY GRID IS NOT IN OPERATION.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE LOCAL UTILITY SERVICE PROVIDER.
5. THE METHOD OF MOUNTING SHALL BE DONE IN ACCORDANCE WITH THE RACKING MANUFACTURER TO MEET DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREMENTS. PHOTOVOLTAIC MODULES WILL BE SECURED AND MOUNTED ON THE ROOF AS SPECIFIED ON THE STRUCTURAL SHEETS. EXISTING ROOF EQUIPMENT WILL NOT BE EFFECTED BY THE PHOTOVOLTAIC SYSTEM OR INSTALLATION.
6. ALL FASTENERS SHALL BE CORROSION RESISTANT APPROPRIATE FOR THE SITE CONDITIONS.
7. ALL ROOFING REPAIRS MUST MAINTAIN EXISTING CLASS AND TYPE OF ROOF AND ALL WORK SHALL BE IN ACCORDANCE WITH THE ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
8. TO BE INSTALLED IN SUCH A MANNER THAT IS DISCREET AND DOES NOT DETRACT FROM THE HOMES ARCHITECTURE

DESCRIPTION OF WORK:

ROOF MOUNTED PHOTOVOLTAIC (SOLAR ELECTRIC) INSTALLATION TILT MOUNTED @ 5° FACING AN AZIMUTH OF 178° CONSISTING OF (30) PANASONIC EVPV400H - 400 WATT MODULES (12.0Kw).

RACK MOUNTING SYSTEM IS UNIRAC SOLARMOUNT ALUMINUM SUPPORT RAILS AND FAST JACK SOLAR STANCHIONS.

INSTALLATION SHALL COMPLY WITH THE FOLLOWING CODES:

CEC 2019 - ARTICLE 690, 705,706 AND OTHERS NEC 2020 705.13
CPC 2019
CBC 2019
CMC 2019
CFC 2019

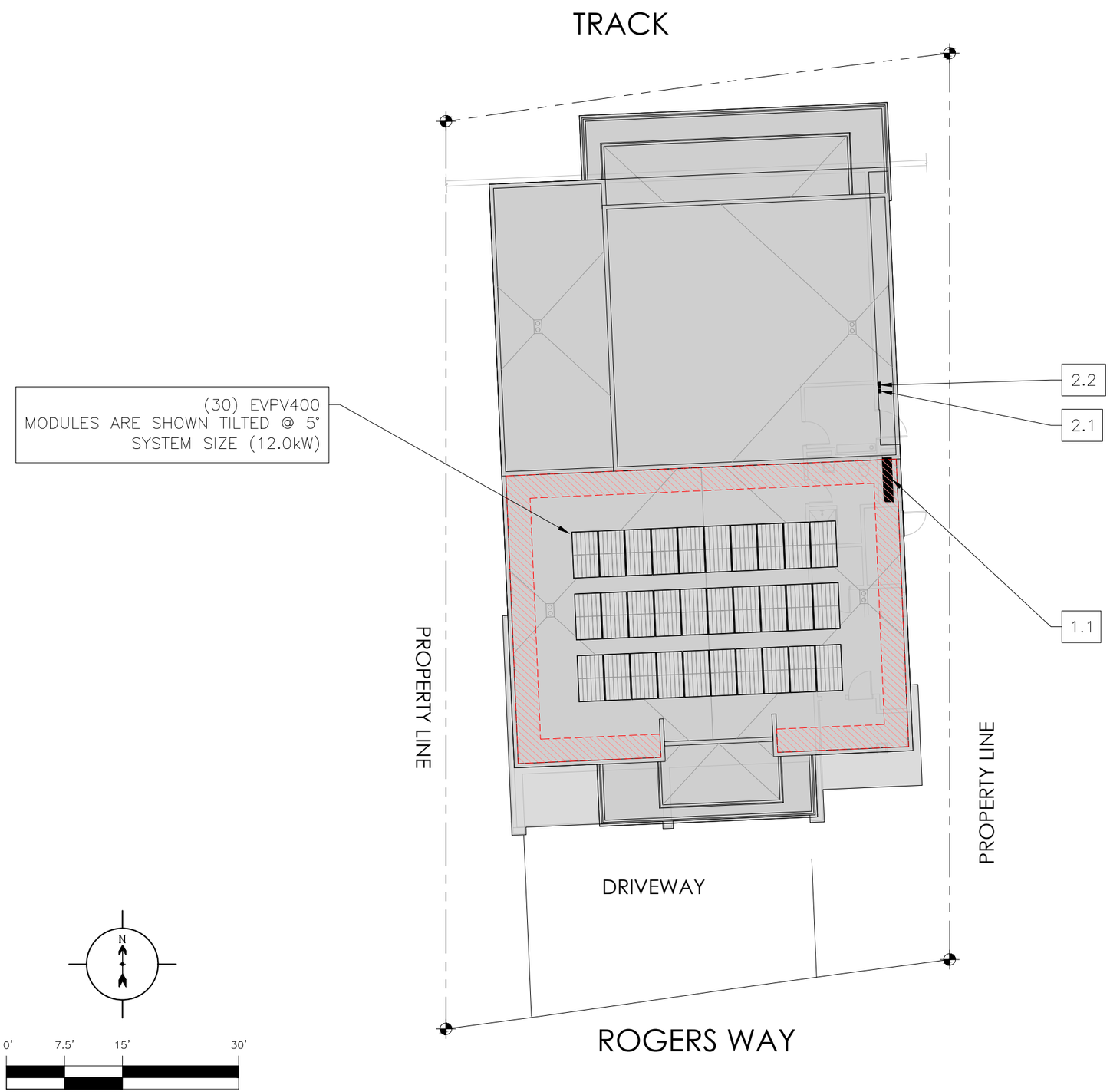
DRAWING SHEETS:

COVER SHEET	PV-0.0
SITE PLAN	PV-1.0
ROOF PLAN	PV-2.0
SINGLE LINE DIAGRAM	PV-3.0
MOUNTING DETAIL	PV-4.0
WARNING LABELING	PV-5.0

SPECIFICATION SHEETS:
EVPV400H MODULE
SE11400H-US INVERTER
UNIRAC CERTIFICATION

Title: Thermal Lot 15
COVER SHEET
86756 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: NTS
Job Number: 22196
Sheet Number:
PV-0.0
Sheet



SITE PLAN KEYNOTE:

EXISTING ELECTRICAL

1.1 600A MAIN ELECTRICAL PANEL

NEW ELECTRICAL
(ADJACENT TO MSP)

2.1 SYSTEM AC DISCONNECT
2.2 SE11400H-US PV INVERTER

SITE LEGEND

FIRE EASEMENT/ACCESS

EAVE SETBACK/WALL

Revisions:	Date:
Rev A	10/10/22

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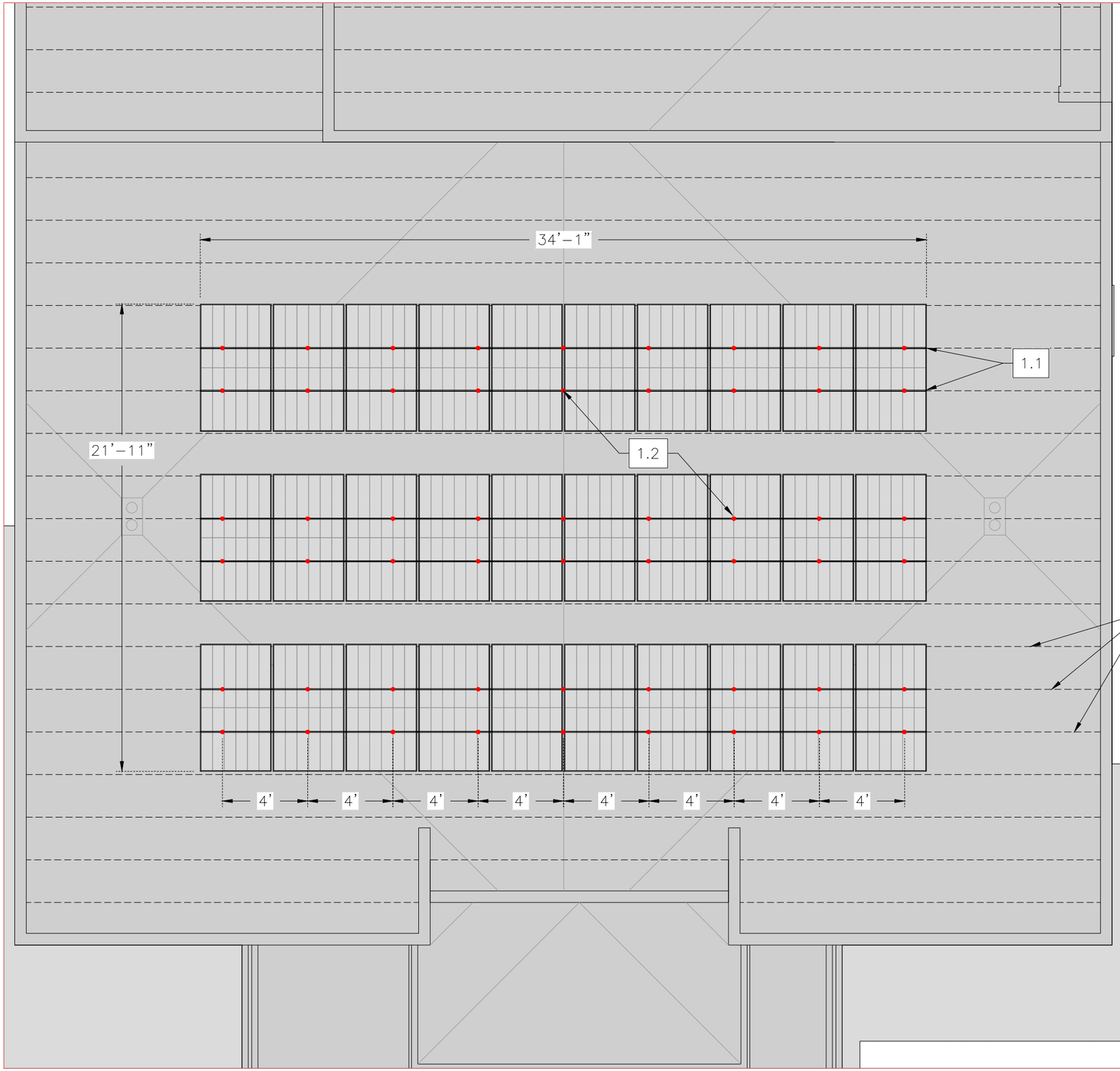
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 15
SITE PLAN
86756 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: 1" = 15'
Job Number: 22196
Sheet Number:
PV-1.0
Sheet



NO ROOF VENTS, ATTIC VENTS OR OTHER NECESSARY BUILDING COMPONENTS MAY BE COVERED OR ALTERED BY THE INSTALLATION OF THE NEW PV ARRAY

MOUNT PLAN KEYNOTE:

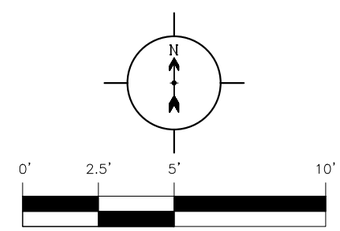
RACK MOUNT COMPONENTS

1.1 UNIRAC ALUMINUM SUPPORT RAIL
1.2 FAST JACK SOLAR STANCHIONS

STRUCTURAL

2.1 ROOF SUPPORTS 16" TJI 210 @ 24" O.C TYP.

1. VERIFY RAFTER SPACING IN THE FIELD BEFORE ATTACHING MOUNTS ROOF.
2. ENSURE THAT MOUNTING LAGS PENETRATE CENTER OF RAFTERS AND MAKE STRUCTURAL CONNECTION TO THE RAFTERS.
3. STRUCTURAL CONNECTION TO ENGINEERED TRUSS SHALL BE MADE BY 3-1/2" X 5/16" STAINLESS STEEL LAG SCREWS 3" MIN. EMBEDMENT.
4. ALL MOUNTS SHALL BE 20" FROM ALL VALLEYS.
5. PHOTOVOLTAIC MODULES SHALL HAVE 2.0 MOUNTS (LAG SCREWS) PER PANEL.
6. (E) ROOF STRUCTURE IS FLAT 16" TJI 210 @ 24" O.C TYP.
7. (E) ROOFING MATERIAL IS 1 LAYER OF TPO OVER 1 LAYER OF 30LB. FELT PAPER AND 1/2" OSB PLYWOOD DECKING.
8. MODULE DIMENSIONS 71.4" x 40.0"



48" SPACING BETWEEN MOUNTS IS TYPICAL - MAX SPAN 6'

Analysis of dead load weight added to roof by installation of solar array

Array #1

Panasonic EVPV400H	45.00	pounds		
No. of solar modules	30			
Total weight of modules	1,350	pounds		
Weight of each Solar Rack set	10	pounds		
No. of rack sets	30.0			
Total weight of rack sets	287	pounds		
Total weight of solar array	1,637	pounds	2.0	mounts per module
Height of each module	5.97	feet	4.0	lags per module with tile hooks
Width of each module	3.33	feet		
Area of one module	19.9	square feet		
Area of entire solar array	596.4	square feet		
Weight of solar array per unit area of roof	2.7	pounds/square foot		
No. of stanchions connected to roof joist rafters	60			
Weight loading per stanchion	27.3	pounds/connection		

Revisions:	Date:
Rev A	10/10/22

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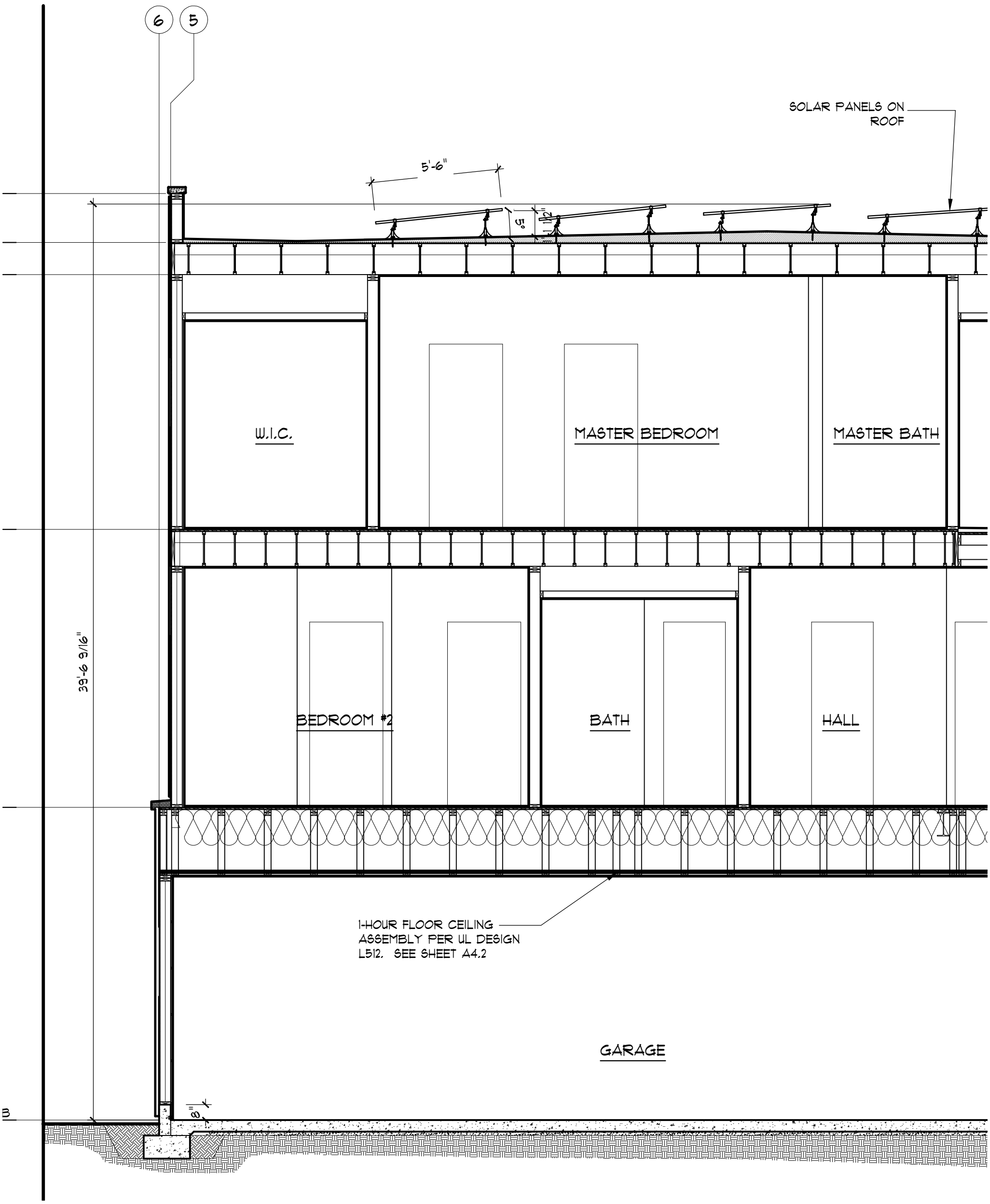
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 15
ROOF PLAN
86756 Rogers Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: 1" = 5'
Job Number: 22196
Sheet Number:

PV-2.0

Sheet



1 PARTIAL BUILDING SECTION

SCALE: 1/4"= 1'-0"

THERMAL MOTORSPORTS - LOT 15

FORGESOLAR GLARE ANALYSIS

Project: **Riverside Co Residential**
Four rooftop PV arrays near KTRM airport, Thermal CA

Site configuration: **4 homes - Lots 15 25 42 93 - 17 Oct 2022**
Analysis conducted by Dave Belote (dave@darestrategies.com) at 16:41 on 17 Oct, 2022.

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: 77735.8001
Methodology: V1

PV Array(s)

Name: 60933 Watkins Glen Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.606283	-116.151325	-147.39	39.71	-107.68
2	33.606285	-116.151252	-147.46	39.71	-107.75
3	33.606385	-116.151257	-147.50	40.21	-107.29
4	33.606382	-116.151331	-147.47	40.21	-107.26

Name: 86756 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.599010	-116.150892	-150.22	40.21	-110.01
2	33.598945	-116.150890	-150.95	39.71	-111.24
3	33.598948	-116.150791	-150.15	39.71	-110.44
4	33.599014	-116.150792	-148.99	40.21	-108.79

Name: 86876 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 181.0°
Rated power: 12.0 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	33.599003	-116.148748	-146.47	40.21	-106.26
2	33.598943	-116.148750	-147.69	39.71	-107.98
3	33.598937	-116.148677	-147.60	39.71	-107.89
4	33.599000	-116.148673	-147.27	40.21	-107.06

Name: 86909 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 183.0°
Rated power: 12.0 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	33.601326	-116.148475	-152.91	40.21	-112.70
2	33.601267	-116.148477	-152.48	39.71	-112.77
3	33.601264	-116.148374	-151.66	39.71	-111.95
4	33.601323	-116.148373	-152.04	40.21	-111.83

Flight Path Receptor(s)

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	33.630183	-116.171005	-117.94	50.00	-67.94
Two-mile	33.650628	-116.195587	-80.78	566.27	485.49

Name: Rwy 17
Description:
Threshold height: 50 ft
Direction: 180.2°
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	33.639142	-116.156425	-115.33	50.00	-65.33
Two-mile	33.668054	-116.156286	-91.22	579.32	488.10

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	33.620459	-116.159390	-132.29	50.00	-82.29
Two-mile	33.600014	-116.134810	-157.22	628.35	471.14

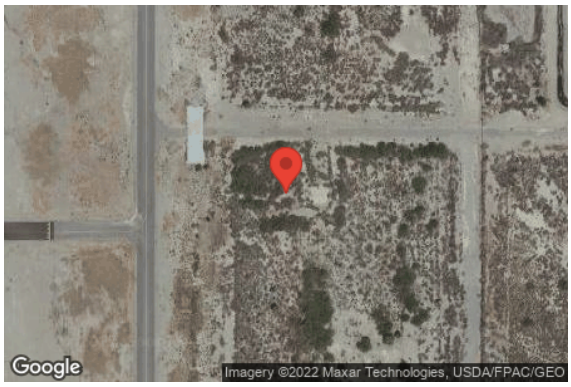
Name: Rwy 35
Description:
Threshold height: 50 ft
Direction: 0.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.615802	-116.156431	-139.06	50.00	-89.06
Two-mile	33.586890	-116.156552	-156.00	620.37	464.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.627040	-116.153590	-129.99	50.00

Map image of 1-ATCT



GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
60933 Watkins Glen Dr	5.0	178.0	930	0	25,910.0
86756 Rogers Way	5.0	178.0	53	0	25,920.0
86876 Rogers Way	5.0	181.0	70	0	25,920.0
86909 Newton Way	5.0	183.0	456	0	25,910.0

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1509	0
Rwy 35	0	0
1-ATCT	0	0

Results for: 60933 Watkins Glen Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	930	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

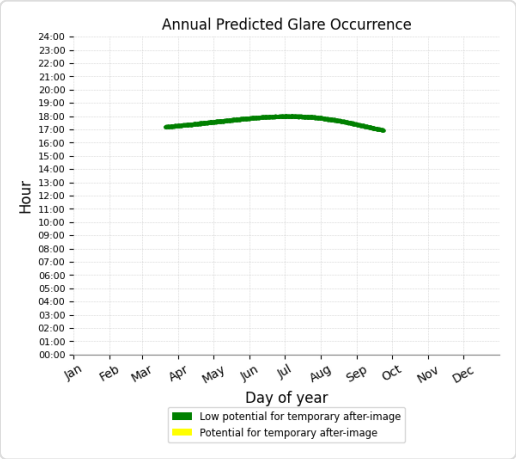
0 minutes of yellow glare
0 minutes of green glare

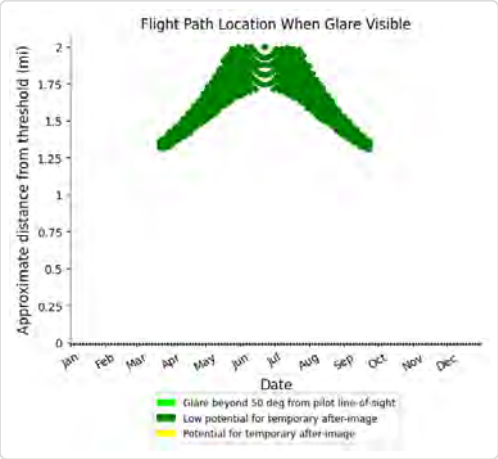
Flight Path: Rwy 17

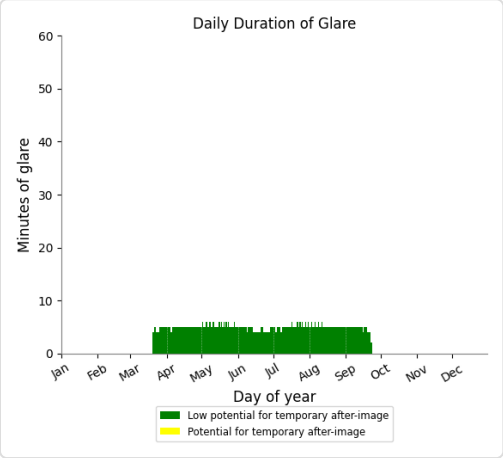
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
930 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86756 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	53	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

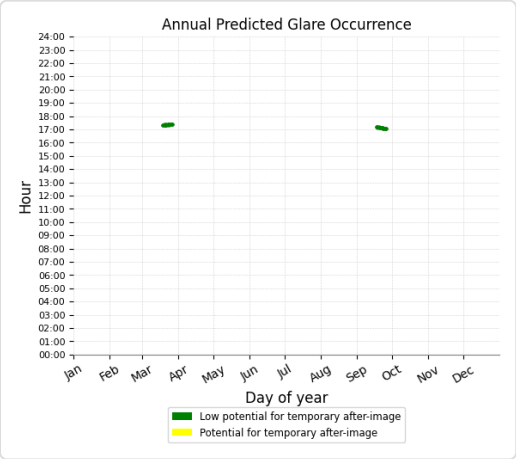
Flight Path: Rwy 17

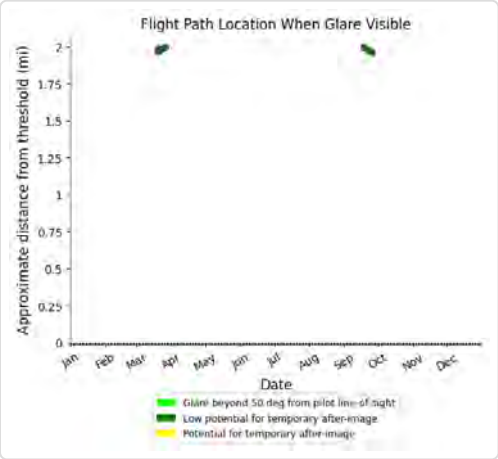
0 minutes of yellow glare
0 minutes of green glare

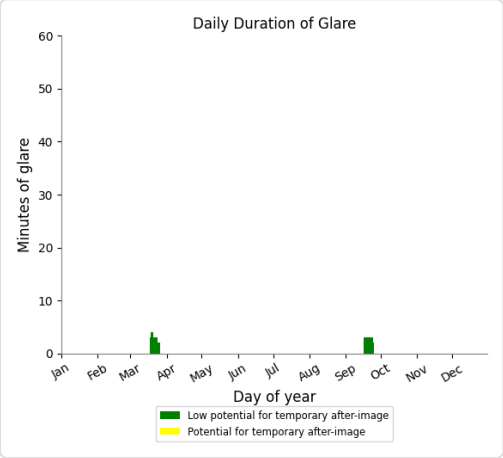
Flight Path: Rwy 30

0 minutes of yellow glare

53 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86876 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	70	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

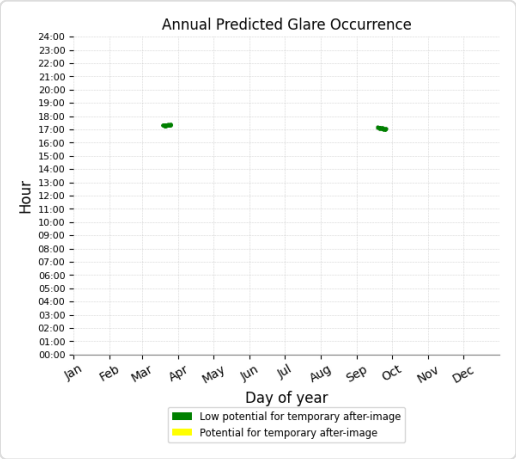
0 minutes of yellow glare
0 minutes of green glare

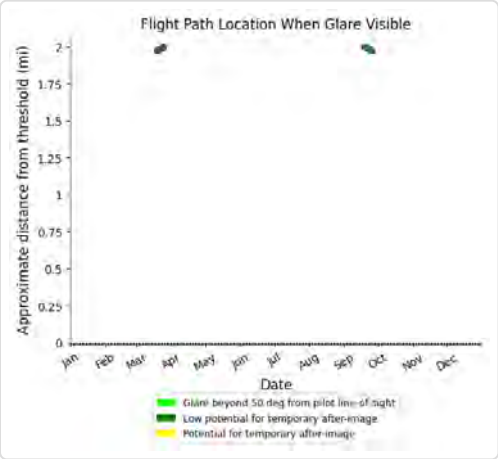
Flight Path: Rwy 17

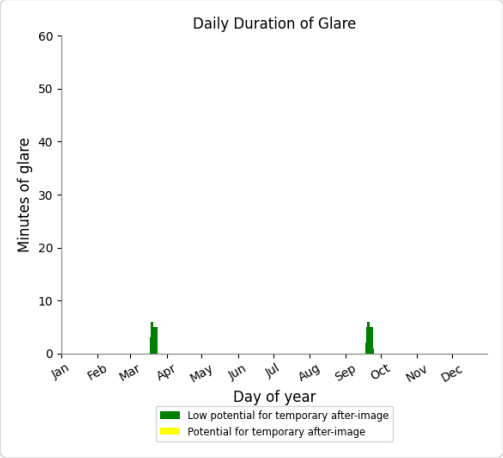
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
70 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86909 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	456	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

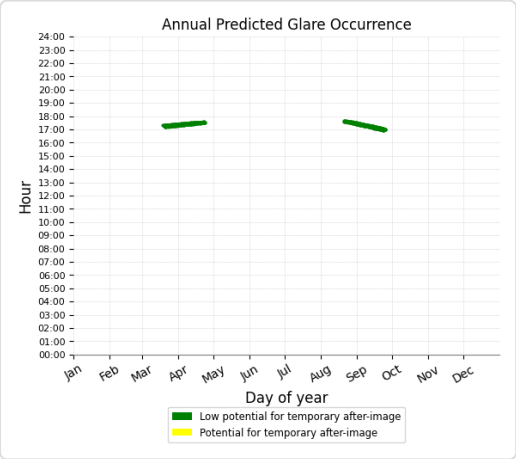
0 minutes of yellow glare
0 minutes of green glare

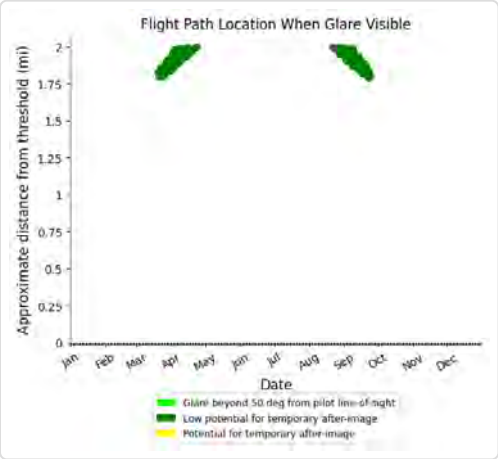
Flight Path: Rwy 17

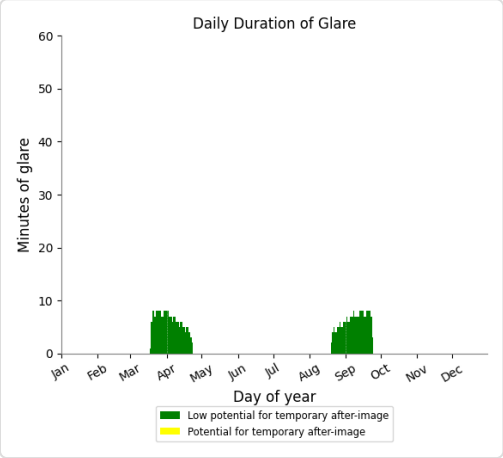
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
456 minutes of green glare







Flight Path: Rwy 35

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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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

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Barbara Santos

County Administrative Center
4080 Lemon St.,14th Floor.
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

November 8, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1066TH22
Related File No.:	BRS2200250 (Building Permit)
APN:	759-290-004

Dear Mr. Shahrouri:

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 Riverside County Building and Safety Case No. BRS2200250 (Building Permit), a proposal to construct a 567 square foot rooftop solar panel system on a proposed residence located at 61462 Goodwood Drive within the Thermal Motorclub.

The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to below 0.2 dwelling units per acre or above 5.0 dwelling units per acre. The proposed rooftop solar panels will not generate any density.

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 3,961 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 –98 feet below MSL. The site's elevation is -148 feet MSL and the proposed building height (with rooftop solar panels) is 18 feet, resulting in a top point elevation of -130 feet MSL. Therefore, review by the FAA OES was not required. The height of the proposed solar panels will not significantly increase the overall height of the building.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 567 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 15 degrees with no rotation, and an orientation of 190 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport

does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 3,463 minutes of "green" level glare, lasting up to 30 minutes a day from March to May and from August to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 15 degrees and orientation of 190 degrees. Solar panels shall be limited to a total of 567 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

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: o2 Architecture (applicant/representative)
Wheeler-Inc. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1066TH22\ZAP1066TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

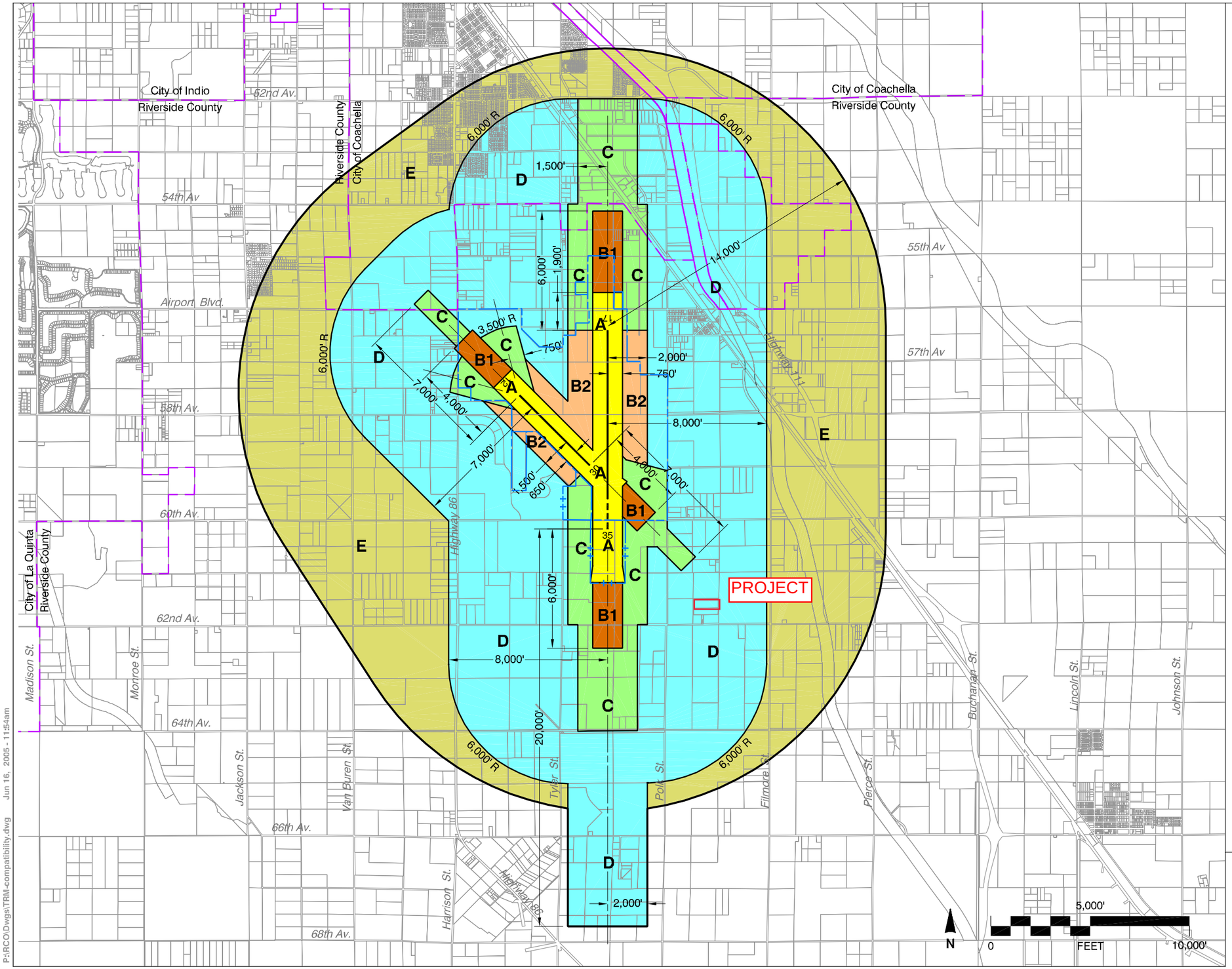
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

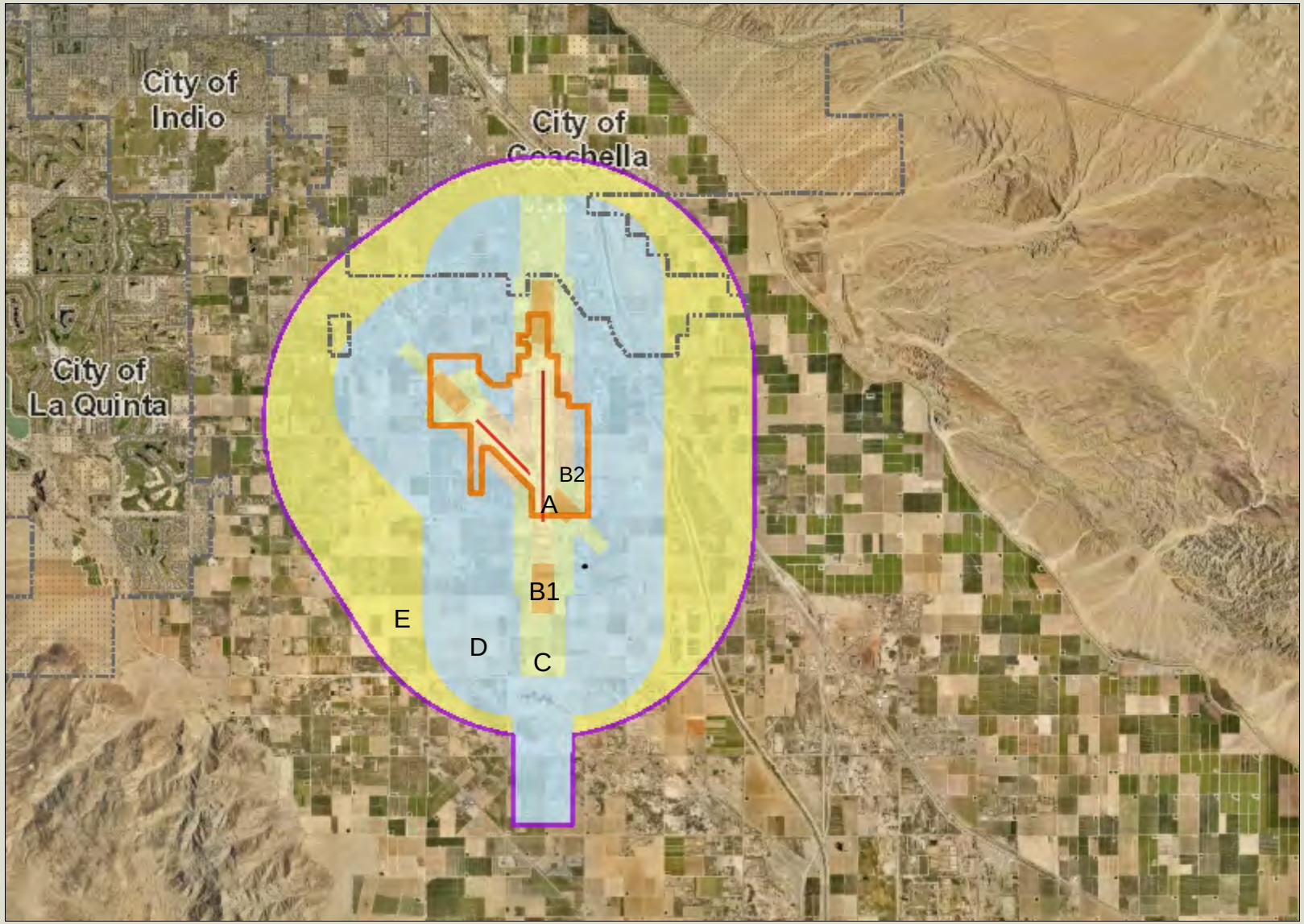
Map JC-1

Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 12,314 24,629 Feet

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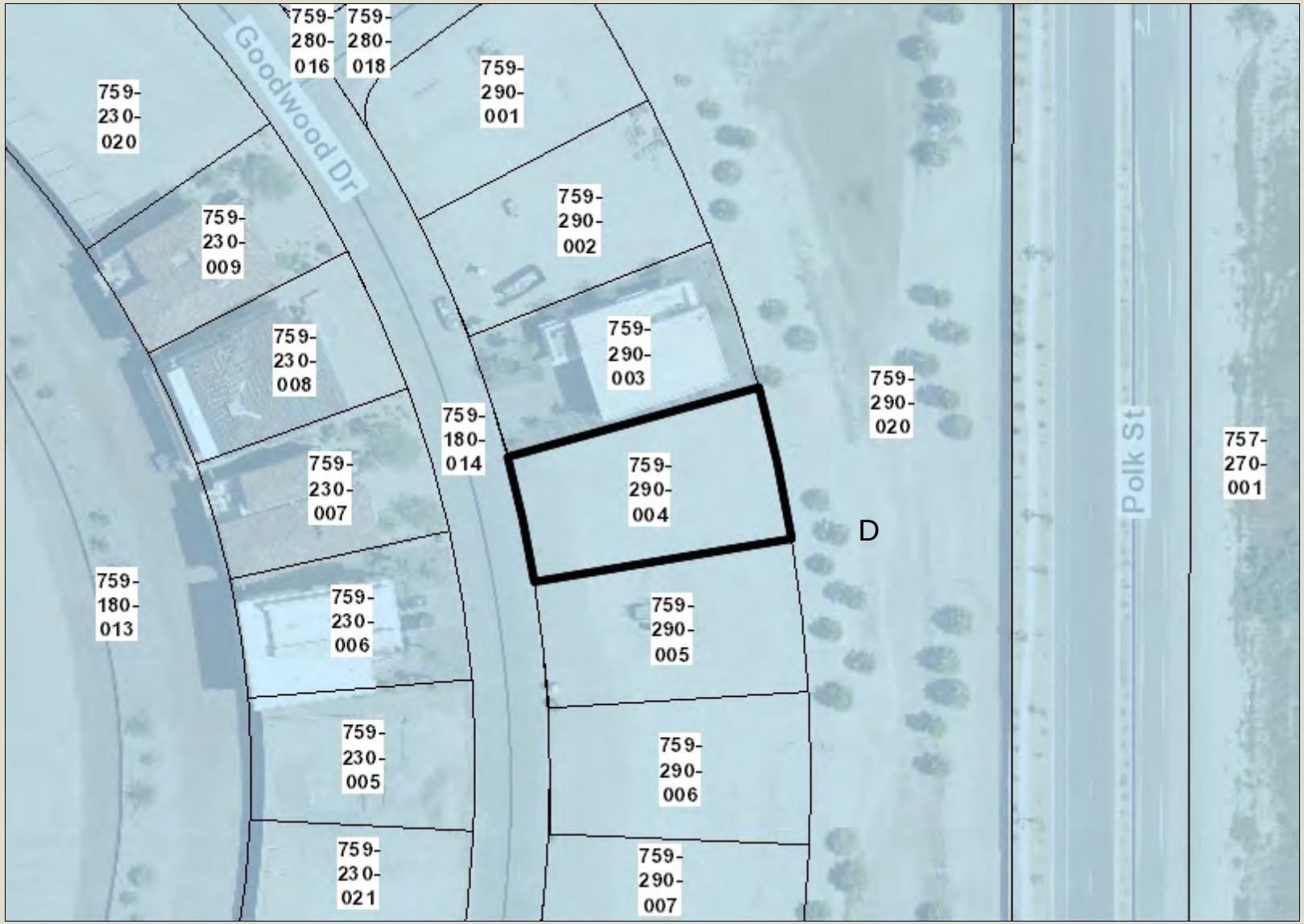

Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 96 192 Feet

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Notes

Map My County Map

Legend

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

0 96 192 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 3,079 6,157 Feet

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Notes

Map My County Map

Legend

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

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0 770 1,539 Feet

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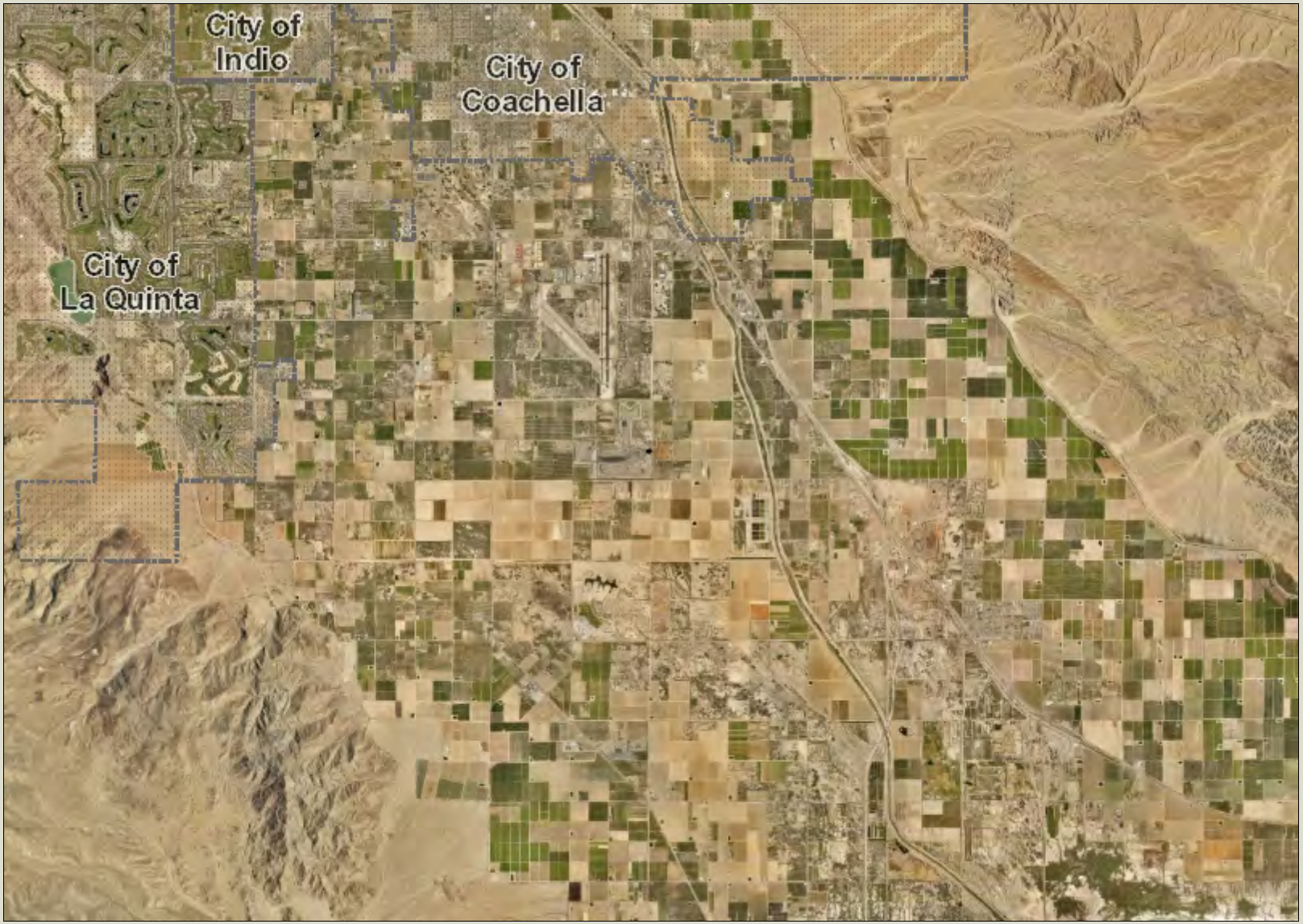
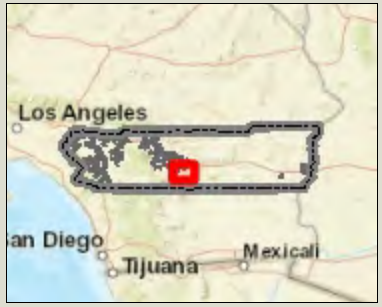
Notes

Map My County Map





Legend

City Areas

World Street Map

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0 12,314 24,629 Feet

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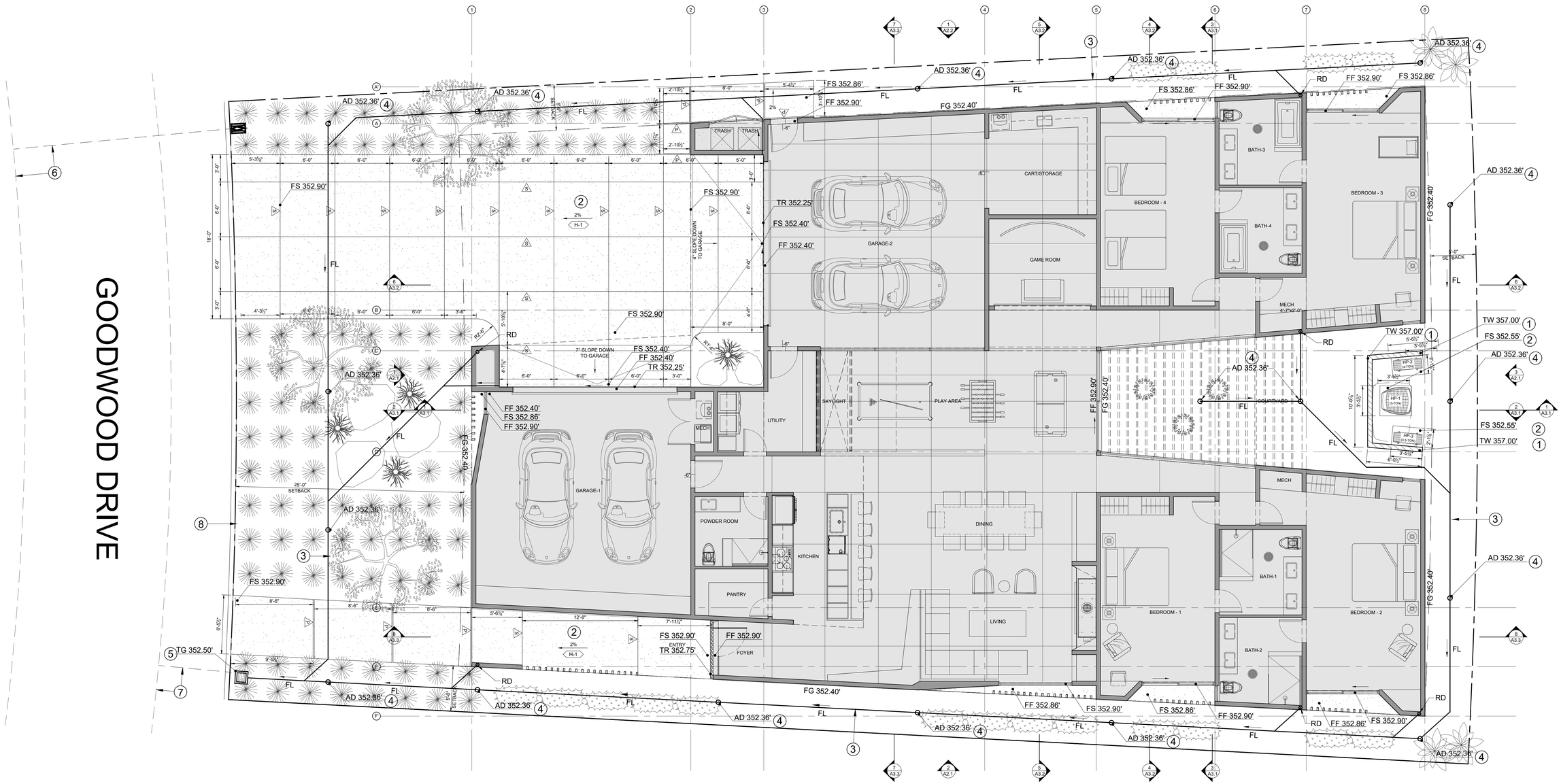

LEGEND:

- WOOD FRAME WALLS
- CONCRETE BLOCK WALLS
- SAWCUT JOINT
- 3" JOINT (PAVER JOINT)
- WATER SERVICE

ABBREVIATIONS:

AD	=	AREA DRAIN
RD	=	ROOF DRAIN
FL	=	FLOW LINE
TW	=	TOP OF WALL
TG	=	TOP OF GRATE
FF	=	FINISH FLOOR
FG	=	FINISH GRADE
FS	=	FINISH SURFACE
TR	=	TRENCH DRAIN

NOTES:

1. CMU WALL IN STUCCO FINISH; COLOR: TBD
2. 4" THICK CONC. HARDSCAPE; SAND FINISH
3. 6" PVC UNDERGROUND DRAIN PIPE: 1% SLOPE MIN.
4. YARD DRAIN w/4" DIA. GRATE
5. BUBBLER BOX; 12" SQ. w/ GRATE
6. WATER MAIN & LATERAL
7. SEWER MAIN & LATERAL
8. 6" CURB AND GUTTER

N

AREA TABULATION:

	CONDITIONED	UNCOND.	TOTAL
RESIDENCE	3,611 sf	0 sf	3,611 sf
GARAGES	1,349 sf	14 sf	1,363 sf
TRASH		29 sf	29 sf
TOTAL:	4,960 sf	43 sf	5,003 sf

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LICENSED ARCHITECT
LANCE C. O'DONNELL
No. C-26815
EXP. 05-31-23
STATE OF CALIFORNIA

#	DATE	ISSUE
1	03.02.2022	PLAN CHECK CORRECTIONS I
2	05.25.2022	PLAN CHECK CORRECTIONS II
3		
4		
5		

PROJECT TITLE:
WHEELER RESIDENCE
THE THERMAL CLUB - LOT# 20A
GOODWOOD DRIVE
THERMAL, CA 92274

SHEET DESCRIPTION
SITE PLAN

SCALE: 3/16"=1'-0"
DATE: 11.08.2021

A1.0

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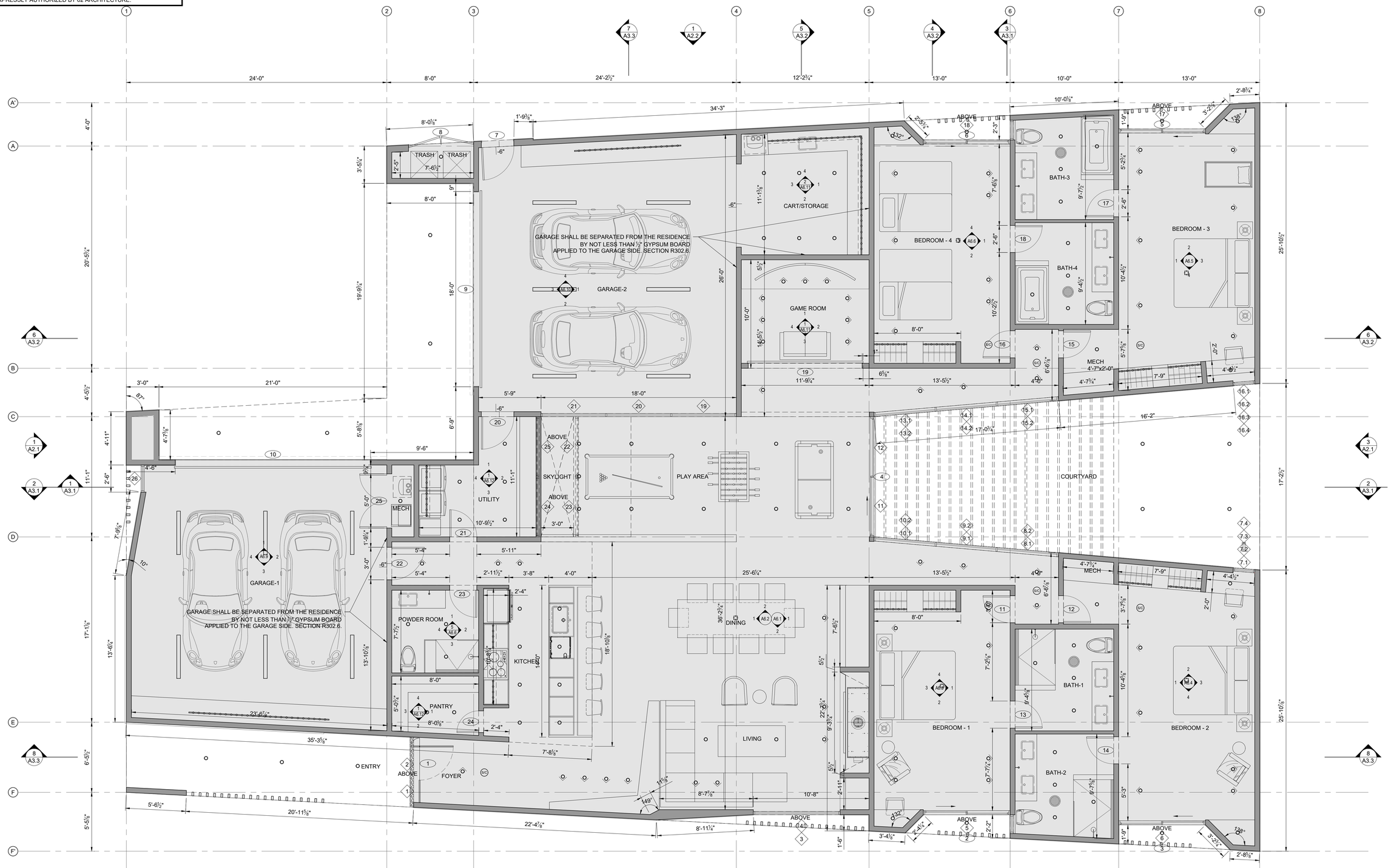

FLOOR PLAN NOTES:

-PROVIDE SAFETY GLAZING MATERIAL IN ACCORDANCE WITH SECTION R308.4

-OPENABLE WINDOWS SHALL BE LOCATED A MINIMUM OF 10' FROM ANY PLUMBING VENTS, CHIMNEYS, ETC. PER SECTION R303.5

-SEE SHEET A0.2 FOR DETAILED MATERIAL SPECIFICATION

FIREPLACE:

MANUFACTURER: HEAT & GLO - HEARTH & HOME TECHNOLOGIES
MODEL: FDN - 6 - BAY

CERTIFICATION: UL LISTING CODE: ANSI Z21.50-2016/CSA 2.22-2016
"VENTED DECORATIVE GAS APPLIANCE"
INSTALL FIREPLACE AND VENT PER MANUFACTURER'S SPECIFICATIONS

1 - FLOOR PLAN
SCALE: 1/4" = 1'-0"

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PROJECT TITLE:
WHEELER RESIDENCE
THE THERMAL CLUB - LOT# 20A
GOODWOOD DRIVE
THERMAL, CA 92274

SHEET DESCRIPTION
FLOOR PLAN

SCALE: 1/4"=1'-0"
DATE: 11.08.2021

A1.1

WHEELER RESIDENCE

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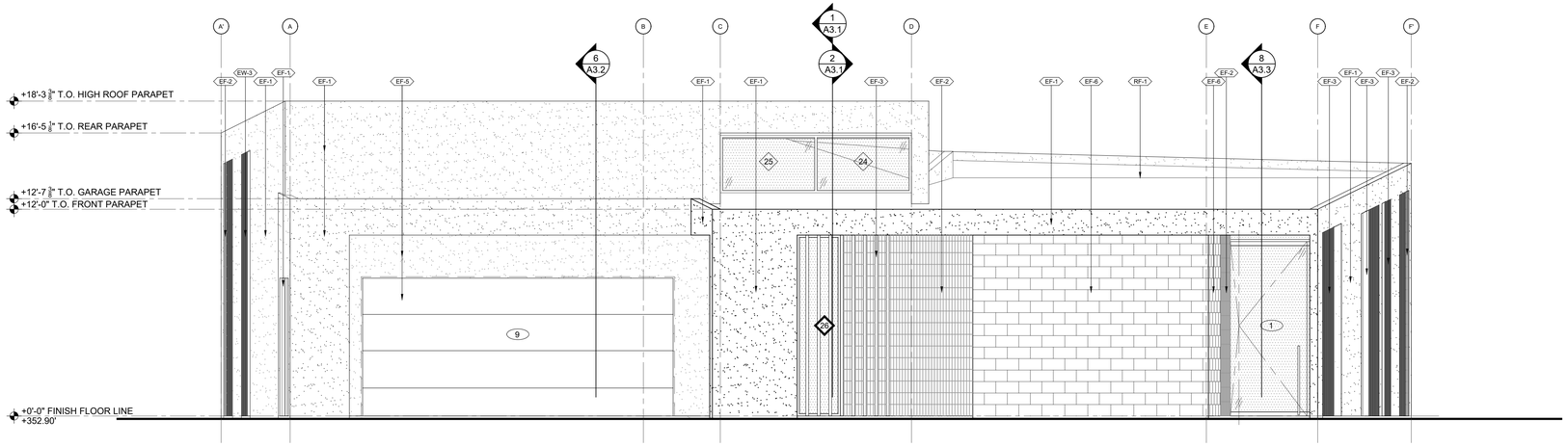
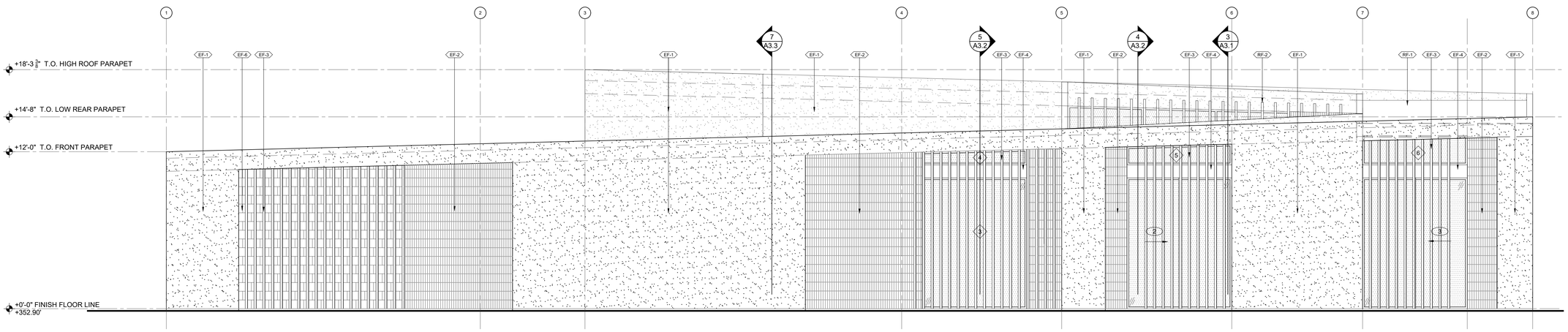
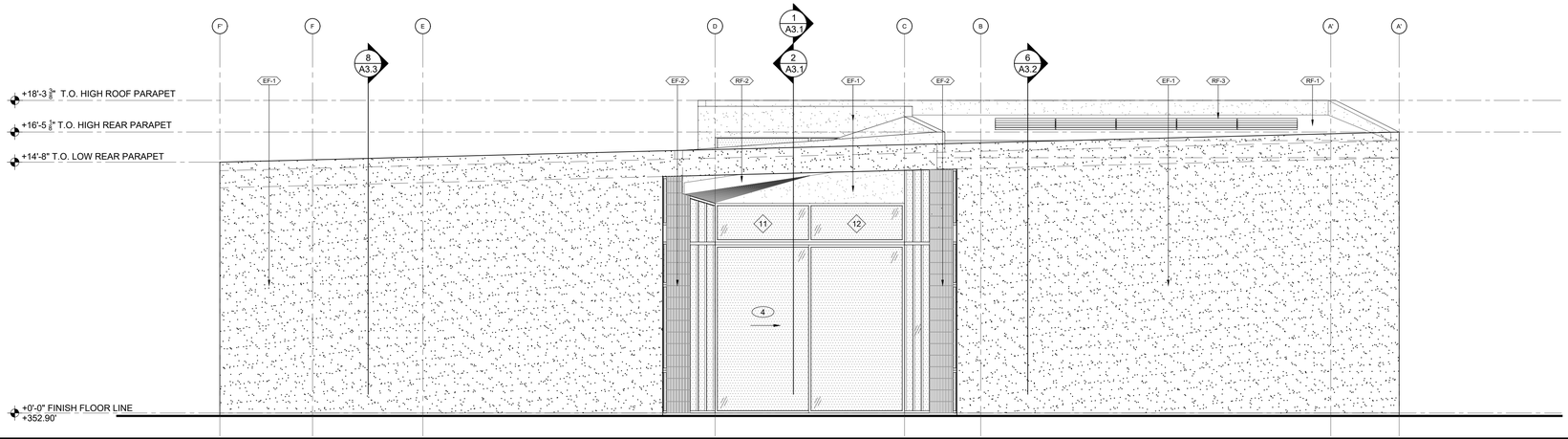


1 WEST - EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



2 SOUTH - EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



3 EAST - EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

MATERIAL LEGEND

SITE WALL
- SW-1 **CONC BLOCK WALL** FINISH: SMOOTH PLASTER COLOR: DOVE GRAY

HARDSCAPE
- H-1 **MELVILLE PLANK SLIM PAVERS** MANUF: BELGARD COLOR: GRAPHITE

GROUND COVER
- S-1 **PEBBLE MIX** TYPE: RIVER ROCK SIZE: 3/8" MINUS COLOR: GREY

EXTERIOR FINISHES
- EF-1 **PLASTER WALL** TYPE: 3 COAT PORTLAND CEMENT FINISH: SAND MANUF: LA HABRA COLOR: DOVE GRAY
- EF-2 **BLUE CERAMIC TILE (T B D)** MANUF: XXXXX SIZE: 2" X 8" COLOR: BLUE
- EF-3 **SCREENS** MATERIAL: ALUMINUM FINISH: POWDER COATED COLOR: DARK BRONZE TO MATCH GLAZING
- EF-4 **WINDOW ASSEMBLY / BRAKE METAL** FRAME MATERIAL: ALUMINUM FRAME COLOR: DARK BRONZE ANODIZED GLAZING: LOW 'E' CLEAR
- EF-5 **PLASTER WALL** (GARAGE DOORS PAINTED TO MATCH) TYPE: 3 COAT PORTLAND CEMENT FINISH: SAND MANUF: LA HABRA COLOR: TUXEDO
- EF-6 **SPLIT FACE CMU, MEDIUM WEIGHT** TYPE: 8" HIGH RUNNING BOND FINISH: SAND MANUF: ANGELUS COLOR: GLACIER WHITE WITH MATCHING MORTAR

ROOF FINISHES
- RF-1 **SINGLE-PLY ROOFING** MANUF: FIBERTITE COLOR: OR GRAY
- RF-2 **PLASTER ROOF LOUVERS** TYPE: 3 COAT PORTLAND CEMENT FINISH: SAND MANUF: LA HABRA COLOR: DOVE GRAY
- RF-3 **SOLAR PANELS** INSTALL: FLAT

APPLIANCES
- AP-1 **36" FRENCH DOOR REFRIGERATOR** MANUF: SUB-ZERO MODEL: BI-36UFDID/S COLOR: STAINLESS STEEL
- AP-2 **30" CONTEMPORARY INDUCTION COOKTOP** MANUF: WOLF MODEL: CI365CB COLOR: BLACK CERAMIC GLASS
- AP-3 **30" COOKTOP WALL HOOD** MANUF: WOLF MODEL: VW30B COLOR: BLACK GLASS
- AP-4 **30" CONVECTION STEAM OVEN** MANUF: WOLF MODEL: CSO30CM/B COLOR: BLACK
- AP-5 **24" DISHWASHER W/ WATER SOFTENER** MANUF: COVE MODEL: DW2450WS COLOR: PANEL READY
- AP-6 **WASHER** MANUF: LG MODEL: WM4500HBA COLOR: BLACK STEEL
- AP-7 **DRYER** MANUF: LG MODEL: DLGX4500B COLOR: BLACK STEEL
- AP-8 **WARDROBE STEAMER** MANUF: LG MODEL: S3RFBN COLOR/FINISH: MIRROR
- AP-9 **FIREPLACE** MANUF: HEAT & GLO MODEL: FDN-6-BAY COLOR/FIRE BED MATERIAL: TBD
- AP-10 **GARBAGE DISPOSAL** MANUF: KITCHENAID MODEL: KCD9100T COLOR/MATERIAL: STAINLESS STEEL
- AP-11 **WASTE BIN PULL-OUT** MANUF: HAFELE MODEL: USC15-2-35WH MATERIAL: ALUMINUM/PLASTIC COLOR: WHITE

PLUMBING
- P-1 **TOILET** MANUF: KOHLER - BETELLO COMFORT HT. MODEL: K-3755-0 COLOR: WHITE
- P-2 **BATH TUB** MANUF: KOHLER MODEL: K-850-0 TEA FOR TWO COLOR: WHITE
- P-3 **TUB FAUCET** MANUF: KOHLER - PURIST MODEL: K-T14428-4-BL COLOR: MATTE BLACK
- P-4 **RAINHEAD SHOWER** MANUF: KOHLER MODEL: K-13690-BL COLOR: MATTE BLACK
- P-5 **SHOWER VALVE W/ LEVER HANDLE** MANUF: KOHLER - PURIST MODEL: K-TLS14422-4-BL COLOR: MATTE BLACK
- P-6 **HAND SHOWER** MANUF: KOHLER - PURIST MODEL: K-22178-G-BL COLOR: MATTE BLACK
- P-7 **BATHROOM FAUCET** MANUF: KOHLER - PURIST MODEL: K-14406-4-BL COLOR: MATTE BLACK
- P-8 **BATHROOM SINK** MANUF: KOHLER - LADENA MODEL: K-2214-0 COLOR: WHITE
- P-9 **SHOWER ROD** MANUF: KOHLER - EXPANSE MODEL: K-9349-2BZ COLOR: OIL-RUBBED BRONZE
- P-10 **FACE TOWEL BAR** MANUF: KOHLER - PURIST MODEL: K-14435-BL COLOR: MATTE BLACK
- P-11 **TOWEL BAR** MANUF: KOHLER - PURIST MODEL: K-14437-BL COLOR: MATTE BLACK
- P-12 **TOILET PAPER HOLDER** MANUF: KOHLER - PURIST MODEL: K-14444-BL COLOR: MATTE BLACK
- P-13 **ROBE/TOWEL HOOK** MANUF: KOHLER - PURIST MODEL: K-14443-BL COLOR: MATTE BLACK
- P-14 **HOTELIER** MANUF: KOHLER - PURIST MODEL: K-14381-BL COLOR: MATTE BLACK
- P-15 **DRAWER PULL** MANUF: KOHLER - PURIST MODEL: K-25499-BL COLOR: MATTE BLACK
- P-16 **KITCHEN FAUCET** MANUF: KOHLER - PURIST MODEL: K-7505-BL COLOR: MATTE BLACK
- P-17 **KITCHEN SINK** MANUF: KOHLER - PURIST MODEL: K-5290-NA COLOR/MATERIAL: STAINLESS STEEL

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DATE	ISSUE	#
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05.25.2022	PLAN CHECK CORRECTIONS II	2

PROJECT TITLE:
WHEELER RESIDENCE
THE THERMAL CLUB - LOT# 20A
GOODWOOD DRIVE
THERMAL, CA 92274

SHEET DESCRIPTION
EXTERIOR ELEVATIONS

SCALE: 1/4"=1'-0"
DATE: 11.08.2021

A2.1

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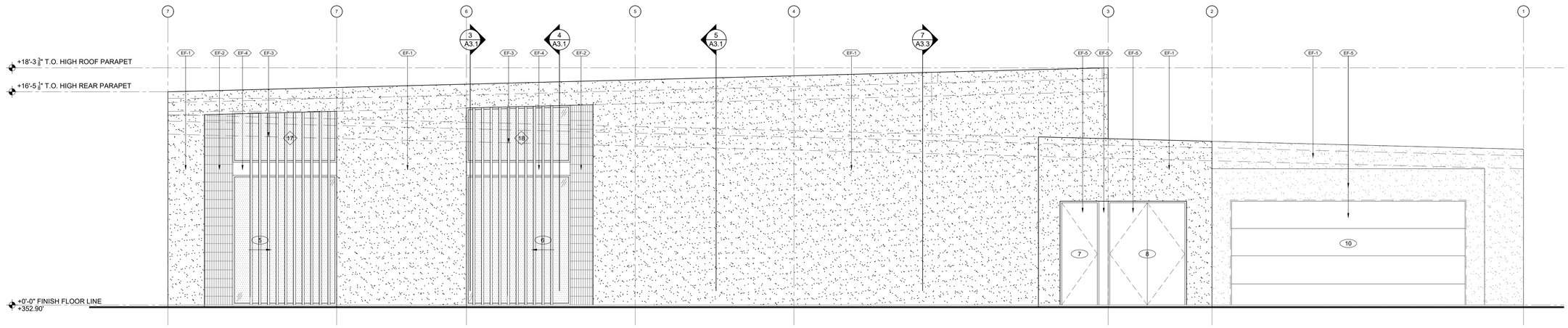

1 / -
NORTH- EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

2 / -
NOT USED
SCALE: X" = 1'-0"

MATERIAL LEGEND

SITE WALL

SW-1 **CONC BLOCK WALL**
FINISH: SMOOTH PLASTER
COLOR: DOVE GRAY

HARDSCAPE

H-1 **MELVILLE PLANK SLIM PAVERS**
MANUF: BELGARD
COLOR: GRAPHITE

GROUND COVER

S-1 **PEBBLE MIX**
TYPE: RIVER ROCK
SIZE: 3/8" MINUS
COLOR: GREY

EXTERIOR FINISHES

EF-1 **PLASTER WALL**
TYPE: 3 COAT PORTLAND CEMENT
FINISH: SAND
MANUF: LA HABRA
COLOR: DOVE GRAY

EF-2 **BLUE CERAMIC TILE (T B D)**
MANUF: XXXXX
SIZE: 2" X 8"
COLOR: BLUE

EF-3 **SCREENS**
MATERIAL: ALUMINUM
FINISH: POWDER COATED
COLOR: DARK BRONZE TO MATCH GLAZING

EF-4 **WINDOW ASSEMBLY / BRAKE METAL**
FRAME MATERIAL: ALUMINUM
FRAME COLOR: DARK BRONZE ANODIZED
GLAZING: LOW 'E' CLEAR

EF-5 **PLASTER WALL**
(GARAGE DOORS PAINTED TO MATCH)
TYPE: 3 COAT PORTLAND CEMENT
FINISH: SAND
MANUF: LA HABRA
COLOR: TUXEDO

EF-6 **SPLIT FACE CMU, MEDIUM WEIGHT**
TYPE: 8" HIGH RUNNING BOND
FINISH: SAND
MANUF: ANGELUS
COLOR: GLACIER WHITE WITH MATCHING MORTAR

ROOF FINISHES

RF-1 **SINGLE-PLY ROOFING**
MANUF: FIBERTITE
COLOR: CR GRAY

RF-2 **PLASTER ROOF LOUVERS**
TYPE: 3 COAT PORTLAND CEMENT
FINISH: SAND
MANUF: LA HABRA
COLOR: DOVE GRAY

RF-3 **SOLAR PANELS**
INSTALL: FLAT

APPLIANCES

AP-1 **36" FRENCH DOOR REFRIGERATOR**
MANUF: SUB-ZERO
MODEL: BI-36UFDID/S
COLOR: STAINLESS STEEL

AP-2 **30" CONTEMPORARY INDUCTION COOKTOP**
MANUF: WOLF
MODEL: CI365CB
COLOR: BLACK CERAMIC GLASS

AP-3 **30" COOKTOP WALL HOOD**
MANUF: WOLF
MODEL: VW30B
COLOR: BLACK GLASS

AP-4 **30" CONVECTION STEAM OVEN**
MANUF: WOLF
MODEL: CSO30CM/B
COLOR: BLACK

AP-5 **24" DISHWASHER W/ WATER SOFTENER**
MANUF: COVE
MODEL: DW2450WS
COLOR: PANEL READY

AP-6 **WASHER**
MANUF: LG
MODEL: WM4500HBA
COLOR: BLACK STEEL

AP-7 **DRYER**
MANUF: LG
MODEL: DLGX4500B
COLOR: BLACK STEEL

AP-8 **WARDROBE STEAMER**
MANUF: LG
MODEL: S3RFBN
COLOR/FINISH: MIRROR

AP-9 **FIREPLACE**
MANUF: HEAT & GLO
MODEL: FDN-6-BAY
COLOR/FIRE BED MATERIAL: TBD

AP-10 **GARBAGE DISPOSAL**
MANUF: KITCHENAID
MODEL: KCD5100T
COLOR/MATERIAL: STAINLESS STEEL

AP-11 **WASTE BIN PULL-OUT**
MANUF: HAFELE
MODEL: U5C15-2-35WH
MATERIAL: ALUMINUM/PLASTIC
COLOR: WHITE

PLUMBING

P-1 **TOILET**
MANUF: KOHLER - BETELLO COMFORT HT.
MODEL: K-3755-0
COLOR: WHITE

P-2 **BATH TUB**
MANUF: KOHLER
MODEL: K-850-0 TEA FOR TWO
COLOR: WHITE

P-3 **TUB FAUCET**
MANUF: KOHLER - PURIST
MODEL: K-T14428-4-BL
COLOR: MATTE BLACK

P-4 **RAINHEAD SHOWER**
MANUF: KOHLER
MODEL: K-13690-BL
COLOR: MATTE BLACK

P-5 **SHOWER VALVE W/ LEVER HANDLE**
MANUF: KOHLER - PURIST
MODEL: K-TLS14422-4-BL
COLOR: MATTE BLACK

P-6 **HAND SHOWER**
MANUF: KOHLER - PURIST
MODEL: K-22178-G-BL
COLOR: MATTE BLACK

P-7 **BATHROOM FAUCET**
MANUF: KOHLER - PURIST
MODEL: K-14406-4-BL
COLOR: MATTE BLACK

P-8 **BATHROOM SINK**
MANUF: KOHLER - LADENA
MODEL: K-2214-0
COLOR: WHITE

P-9 **SHOWER ROD**
MANUF: KOHLER - EXPANSE
MODEL: K-9349-2BZ
COLOR: OIL-RUBBED BRONZE

P-10 **FACE TOWEL BAR**
MANUF: KOHLER - PURIST
MODEL: K-14435-BL
COLOR: MATTE BLACK

P-11 **TOWEL BAR**
MANUF: KOHLER - PURIST
MODEL: K-14437-BL
COLOR: MATTE BLACK

P-12 **TOILET PAPER HOLDER**
MANUF: KOHLER - PURIST
MODEL: K-14444-BL
COLOR: MATTE BLACK

P-13 **ROBE/TOWEL HOOK**
MANUF: KOHLER - PURIST
MODEL: K-14443-BL
COLOR: MATTE BLACK

P-14 **HOTELIER**
MANUF: KOHLER - PURIST
MODEL: K-14381-BL
COLOR: MATTE BLACK

P-15 **DRAWER PULL**
MANUF: KOHLER - PURIST
MODEL: K-25499-BL
COLOR: MATTE BLACK

P-16 **KITCHEN FAUCET**
MANUF: KOHLER - PURIST
MODEL: K-7505-BL
COLOR: MATTE BLACK

P-17 **KITCHEN SINK**
MANUF: KOHLER - PURIST
MODEL: K-5260-NA
COLOR/MATERIAL: STAINLESS STEEL

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PROJECT TITLE:
WHEELER RESIDENCE
THE THERMAL CLUB - LOT# 20A
GOODWOOD DRIVE
THERMAL, CA 92274

SHEET DESCRIPTION
EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"
DATE: 11.08.2021

A2.2

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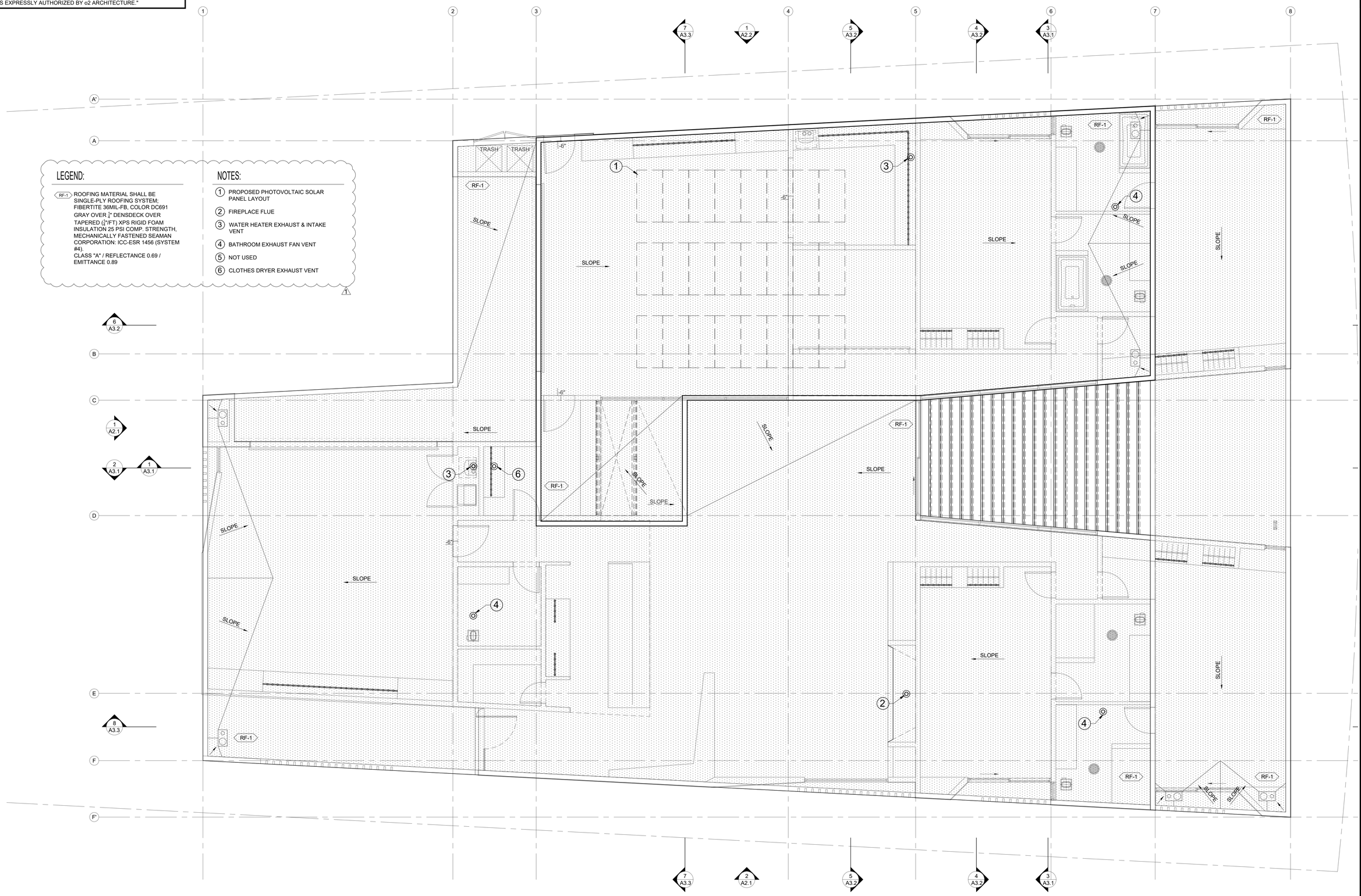
LEGEND:

RF-1 ROOFING MATERIAL SHALL BE SINGLE-PLY ROOFING SYSTEM; FIBERTITE 36MIL-FB, COLOR DC691 GRAY OVER ¼" DENSDECK OVER TAPERED (¼"/FT) XPS RIGID FOAM INSULATION 25 PSI COMP. STRENGTH, MECHANICALLY FASTENED SEAMAN CORPORATION: ICC-ESR 1456 (SYSTEM #4).
CLASS "A" / REFLECTANCE 0.69 / EMITTANCE 0.89

NOTES:

1. PROPOSED PHOTOVOLTAIC SOLAR PANEL LAYOUT
2. FIREPLACE FLUE
3. WATER HEATER EXHAUST & INTAKE VENT
4. BATHROOM EXHAUST FAN VENT
5. NOT USED
6. CLOTHES DRYER EXHAUST VENT



1 ROOF PLAN
SCALE: 1/4" = 1'-0"

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THE THERMAL CLUB - LOT# 20A
GOODWOOD DRIVE
THERMAL, CA 92274

SHEET DESCRIPTION
ROOF PLAN
SCALE: 1/4" = 1'-0"
DATE: 11.08.2021

A7.1
WHEELER RESIDENCE

Stantec

Memo

To:	Art Katz	From:	Jennifer Brunty
	USBD, Los Angeles, CA		Sarasota
Project/File:	Wheeler Residence	Date:	October 31, 2022

Reference: Wheeler Residence Glare Study

The purpose of this Glare Study is to demonstrate that the proposed solar panels to be located on a future constructed residence, located at 61462 Goodwood Drive, Thermal CA, will not cause glare to pilots approaching the runways at the Jacquelyn Cochran Regional Airport located to the north of the project site.

The Glare Study was run using four different layouts using both a single polygon and three smaller polygons representing the array as shown on the attached reports. These different iterations were used to determine if panels proposed for this flat roofed residence are predicted to cause glare to pilots landing at the airport. Parameters used included fixed tilt panels, comprised of smooth glass with anti-reflective coating, oriented at 190 degrees from due north and tilted at 15 degrees. In all cases, ***no glare is predicted for any layout on the proposed house***.

In addition, the proposed rooftop installation is not predicted to cause any glare to a planned air traffic control tower (ATCT) in the approximate proposed location of a 50-foot tall ATCT as provided by the Riverside County Airport Land Use Commission on October 31, 2022.

Please do not hesitate to contact me if you have any questions regarding this Glare Study.

Regards,

STANTEC CONSULTING SERVICES INC.

Jennifer Brunty Ph.D., PMP
Senior Environmental Scientist
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Attachment: Four Glare Analysis Reports from ForgeSolar output

Wheeler Residence Glare Study

Wheeler Residence Glare Study Run 2

Created Sept. 30, 2022
Updated Nov. 4, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 76901.13596

Project type Basic
Project status: active
Category 10 to 100 kW
(1,000 kW / 8 acre limit)

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results

Glare with low potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	15.0	190.0	3,463	0	-

Component Data

PV Array(s)

Total PV footprint area: 0.05 acre

Name: PV array 1
Footprint area: 0.05 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603763	-116.147270	-149.20	18.17	-131.03
2	33.603714	-116.147474	-148.49	18.17	-130.32
3	33.603628	-116.147441	-150.15	16.33	-133.82
4	33.603676	-116.147242	-149.97	16.33	-133.64

2-Mile Flight Path Receptor(s)

Name: Jacqueline Cochran Regional Airport Runway 12
Description:
Threshold height : 50 ft
Direction: 137.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.630174	-116.170957	-117.43	50.00	-67.43
2-mile point	33.651310	-116.194680	-82.98	568.98	486.00

Name: Jacqueline Cochran Regional Airport Runway 17
Description:
Threshold height : 50 ft
Direction: 180.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.639150	-116.156423	-115.20	50.00	-65.20
2-mile point	33.668063	-116.156423	-91.47	579.69	488.22

Name: Jacqueline Cochran Regional Airport Runway 30
Description:
Threshold height : 50 ft
Direction: 312.7 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.620513	-116.159450	-132.31	50.00	-82.31
2-mile point	33.600891	-116.133920	-160.09	631.21	471.12

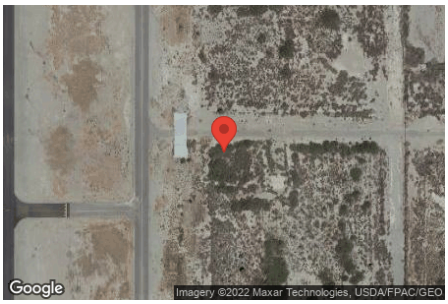
Name: Jacqueline Cochran Regional Airport Runway 35
Description:
Threshold height : 50 ft
Direction: 0.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.615814	-116.156430	-139.07	50.00	-89.07
2-mile point	33.586901	-116.156430	-157.27	621.62	464.36

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1-ATCT	33.627302	-116.153887	-129.58	50.00	-79.58

1-ATCT map image



Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	15.0	190.0	3,463	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-1 (green)	0	98	760	792	79	0	0	594	796	344	0	0
pv-array-1 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	3463	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

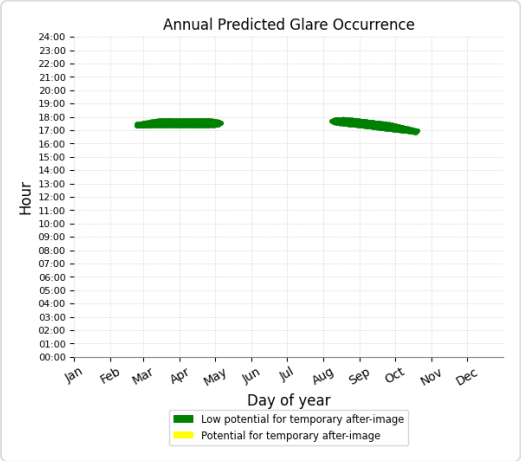
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

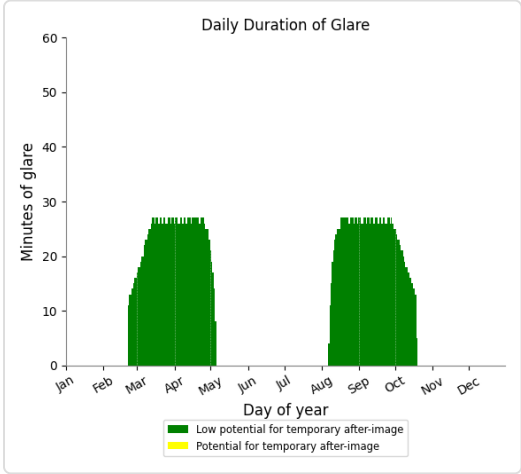
No glare found

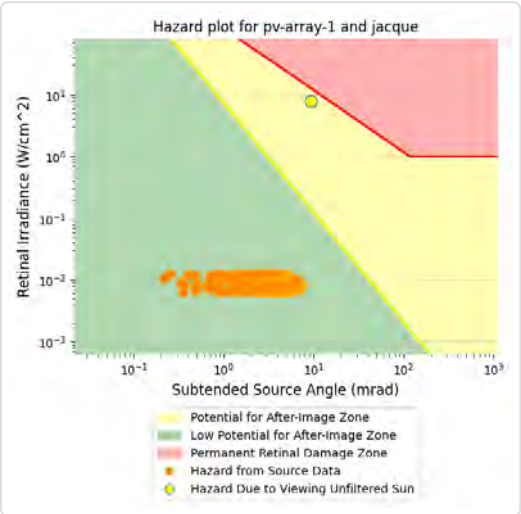
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

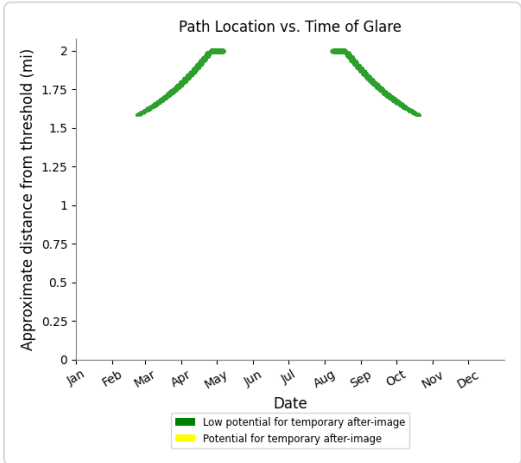
PV array is expected to produce the following glare for observers on this flight path:

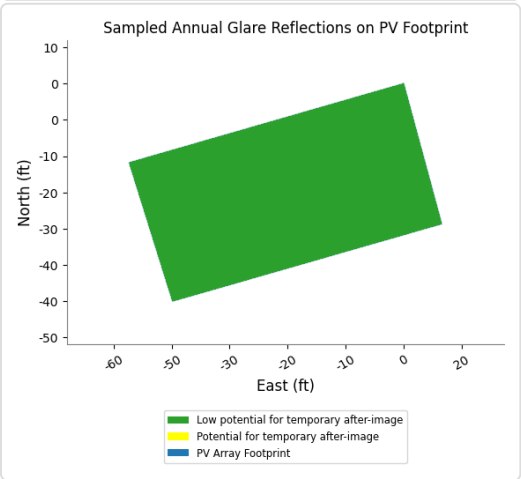
- 3,463 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

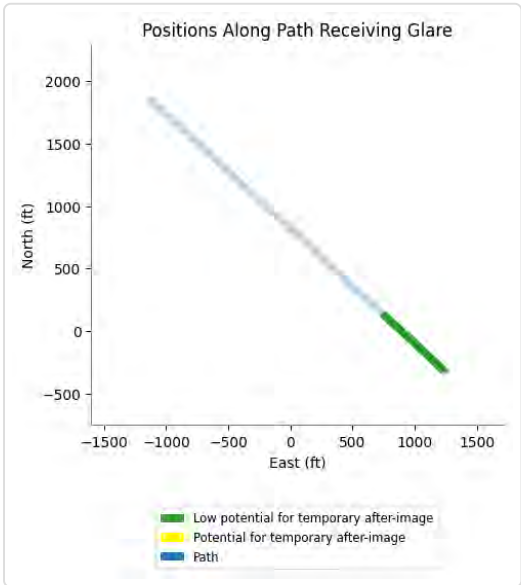












PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 1 - OP Receptor (1-ATCT)

No glare found

Assumptions

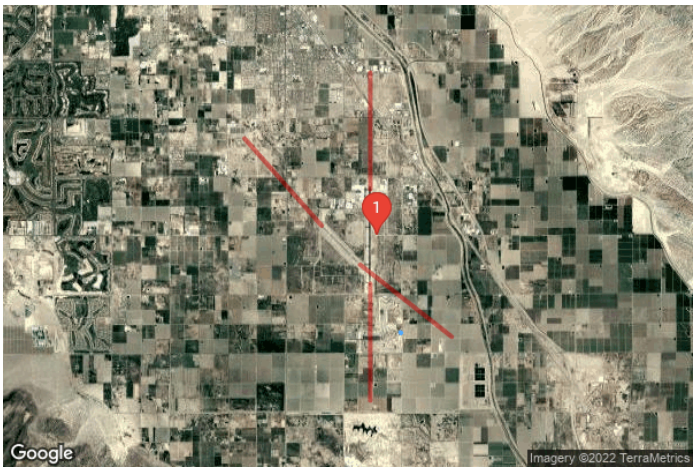
- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographi obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for larg 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, no discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

Wheeler Residence Glare Study

Wheeler Residence Glare Study Run 3

Created Sept. 30, 2022
Updated Nov. 4, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 76906.13596

Project type Basic
Project status: active
Category 10 to 100 kW
(1,000 kW / 8 acre limit)



Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results

Glare with low potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	15.0	190.0	1,509	0	-
PV array 2	15.0	190.0	1,503	0	-
PV array 3	15.0	190.0	1,470	0	-

Component Data

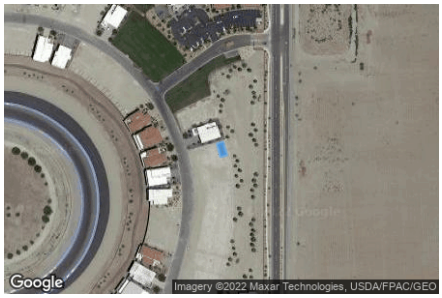
PV Array(s)

Total PV footprint area: 0.06 acre

Name: PV array 1
Footprint area: 0.02 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

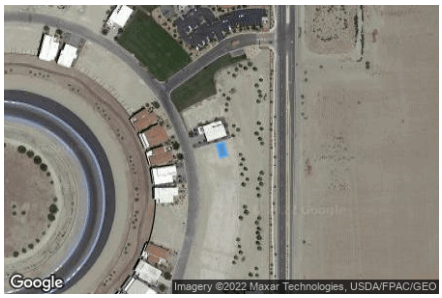
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603765	-116.147272	-149.20	18.17	-131.03
2	33.603654	-116.147233	-149.95	16.33	-133.62
3	33.603641	-116.147292	-150.66	16.33	-134.33
4	33.603750	-116.147327	-148.71	18.17	-130.54



Name: PV array 2
Footprint area: 0.02 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603752	-116.147330	-148.71	18.17	-130.54
2	33.603638	-116.147292	-150.66	16.33	-134.33
3	33.603622	-116.147362	-150.73	16.33	-134.40
4	33.603734	-116.147399	-148.20	18.17	-130.03



Name: PV array 3
Footprint area: 0.02 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603733	-116.147402	-148.20	18.17	-130.03
2	33.603623	-116.147362	-150.73	16.33	-134.40
3	33.603604	-116.147433	-150.15	16.33	-133.82
4	33.603715	-116.147476	-147.90	18.17	-129.73

2-Mile Flight Path Receptor(s)

Name: Jacqueline Cochran Regional Airport Runway 12
Description:
Threshold height : 50 ft
Direction: 138.4 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.630148	-116.170923	-116.69	50.00	-66.69
2-mile point	33.651778	-116.193991	-84.02	570.76	486.74

Name: Jacqueline Cochran Regional Airport Runway 17
Description:
Threshold height : 50 ft
Direction: 180.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.639150	-116.156423	-115.20	50.00	-65.20
2-mile point	33.668063	-116.156423	-91.47	579.69	488.22

Name: Jacqueline Cochran Regional Airport Runway 30
Description:
Threshold height : 50 ft
Direction: 308.1 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.620513	-116.159454	-132.31	50.00	-82.31
2-mile point	33.602673	-116.132099	-169.35	640.47	471.12

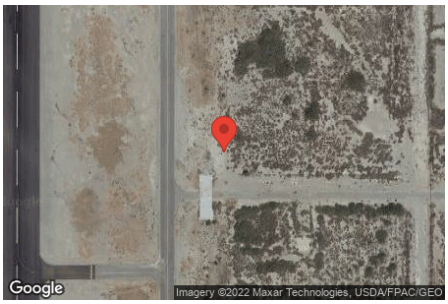
Name: Jacqueline Cochran Regional Airport Runway 35
Description:
Threshold height : 50 ft
Direction: 0.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.615814	-116.156430	-139.07	50.00	-89.07
2-mile point	33.586901	-116.156430	-157.27	621.62	464.36

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1-ATCT	33.627862	-116.154167	-134.78	50.00	-84.78

1-ATCT map image



Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	15.0	190.0	1,509	0	-	-
PV array 2	15.0	190.0	1,503	0	-	-
PV array 3	15.0	190.0	1,470	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-1 (green)	0	30	570	152	0	0	0	0	590	167	0	0
pv-array-1 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-2 (green)	0	30	573	146	0	0	0	0	587	167	0	0
pv-array-2 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-3 (green)	0	28	567	137	0	0	0	0	578	160	0	0
pv-array-3 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	1509	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

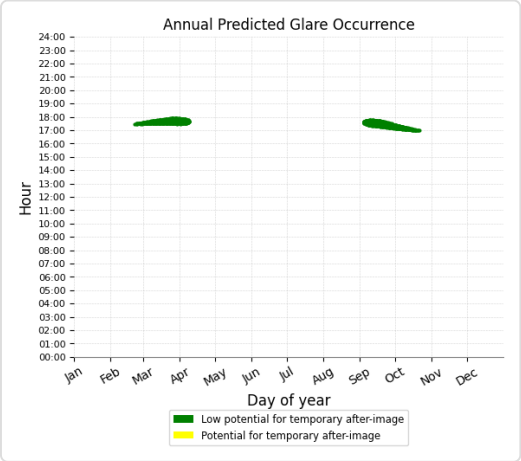
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

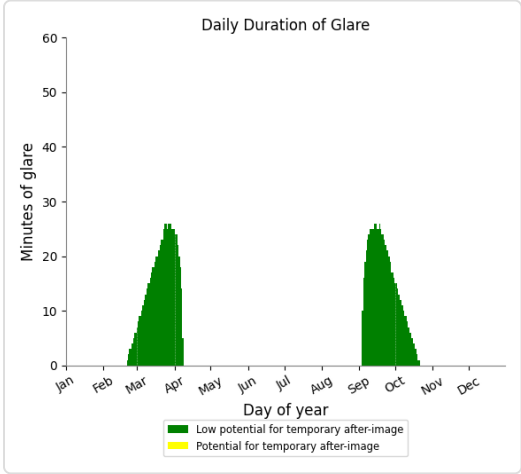
No glare found

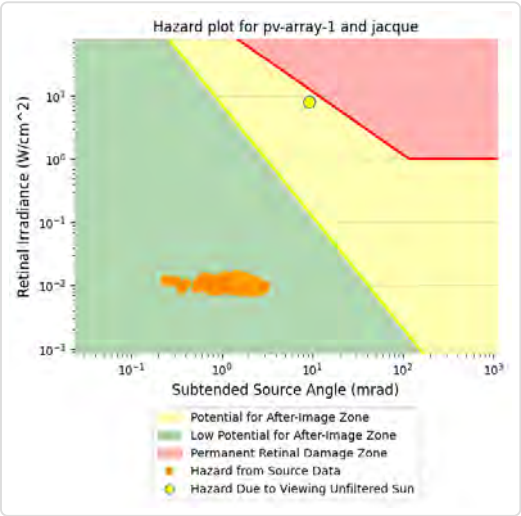
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

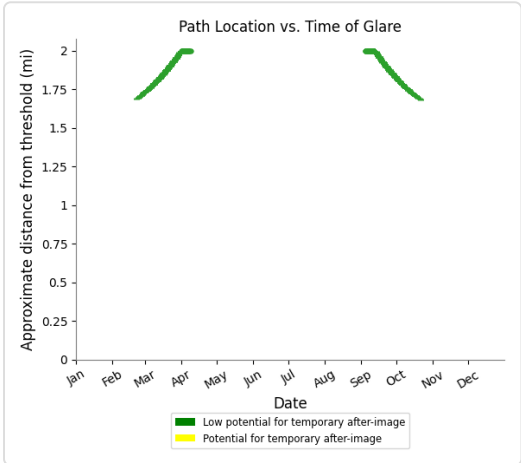
PV array is expected to produce the following glare for observers on this flight path:

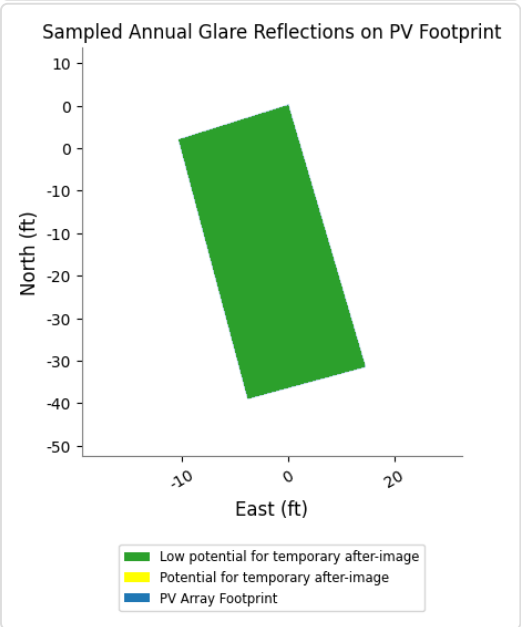
- 1,509 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

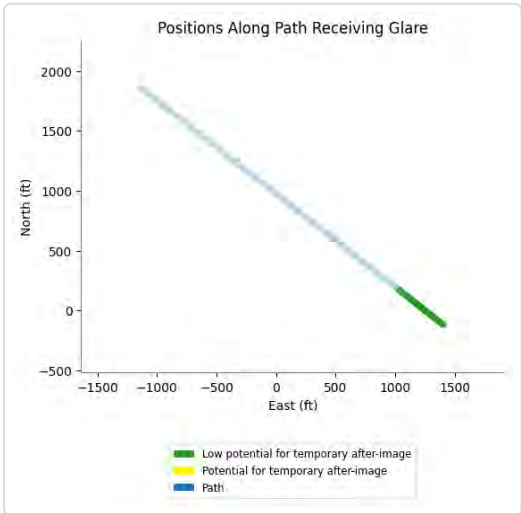












PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 1 - OP Receptor (1-ATCT)

No glare found

PV array 2 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	1503	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

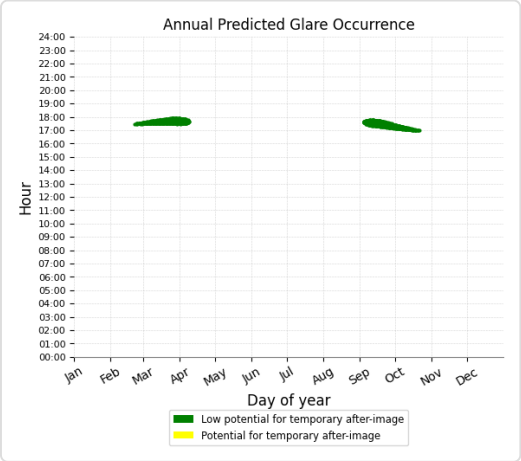
PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

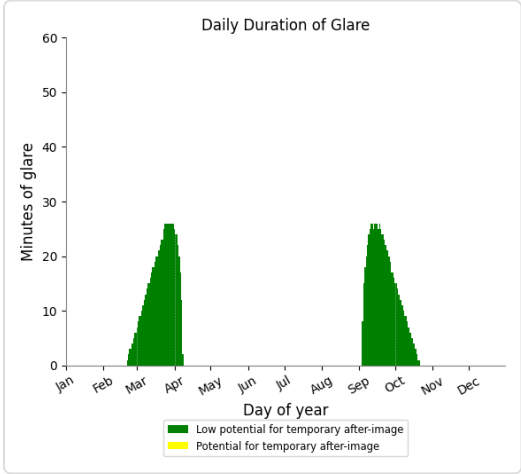
No glare found

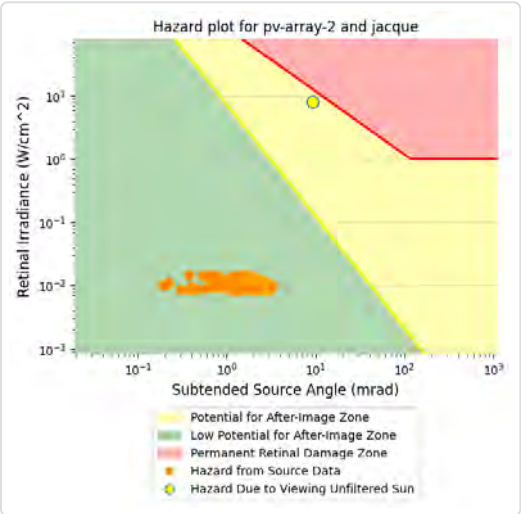
PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

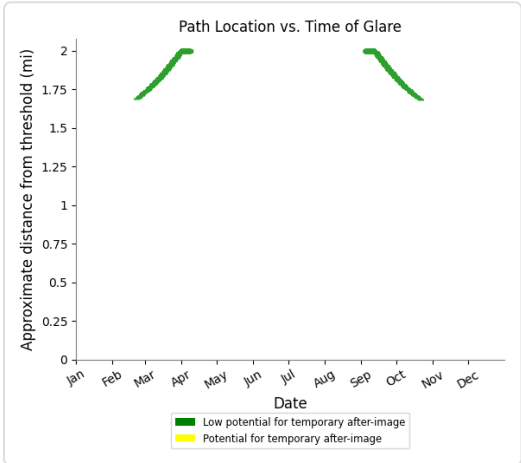
PV array is expected to produce the following glare for observers on this flight path:

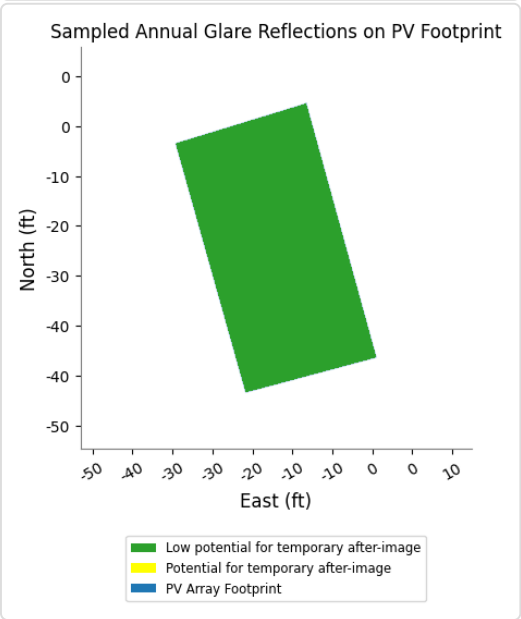
- 1,503 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

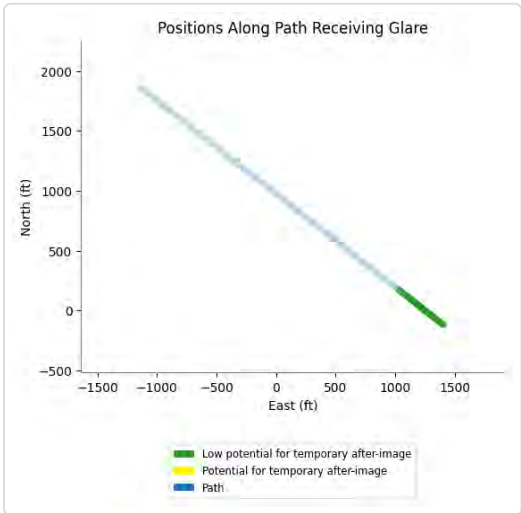












PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 2 - OP Receptor (1-ATCT)

No glare found

PV array 3 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	1470	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

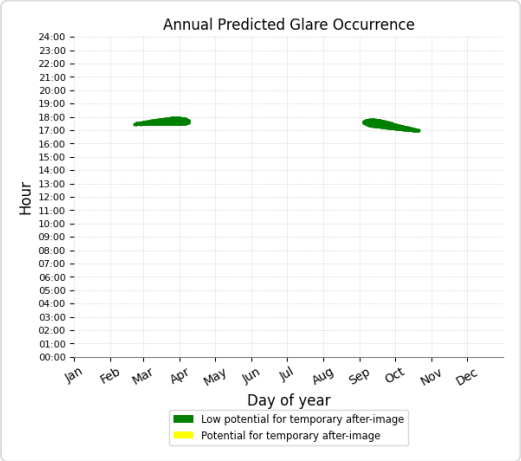
PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

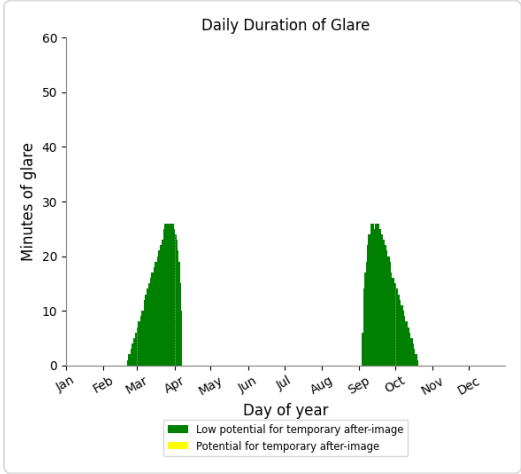
No glare found

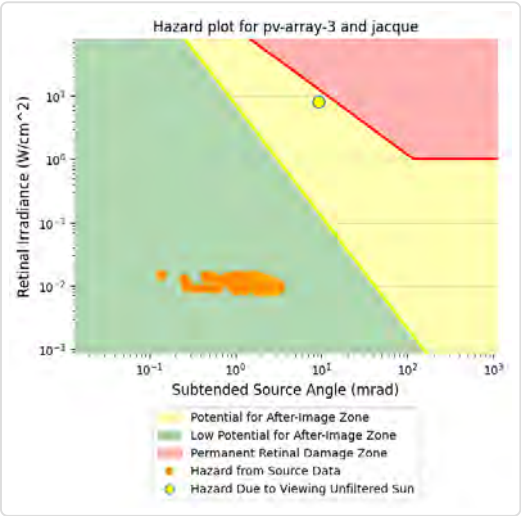
PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

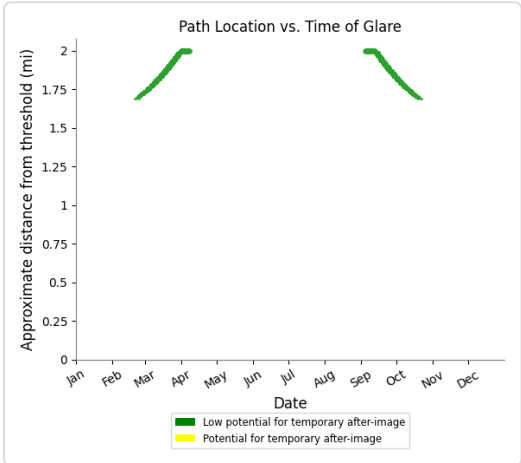
PV array is expected to produce the following glare for observers on this flight path:

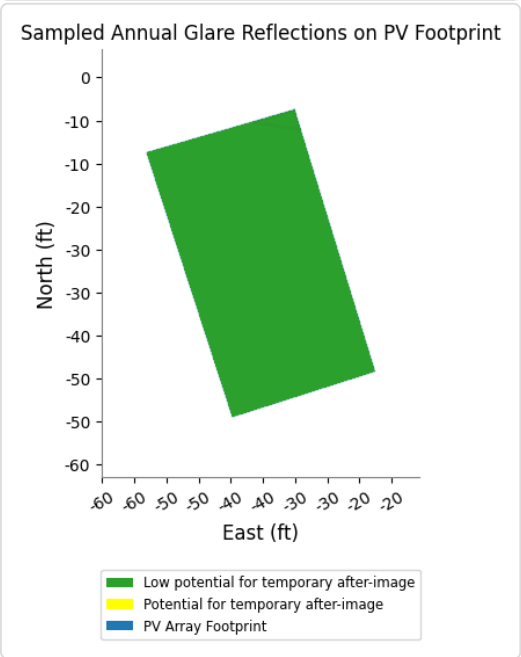
- 1,470 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

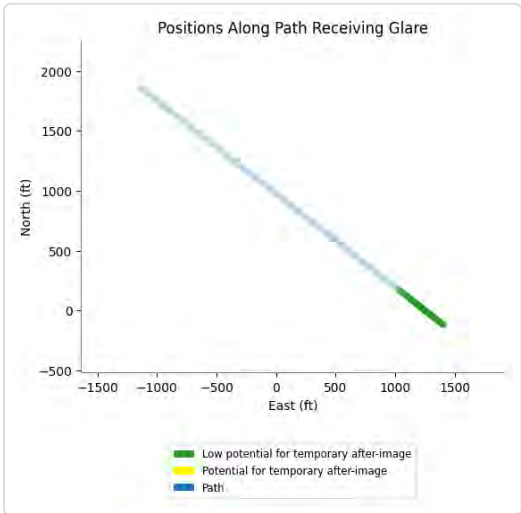












PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 3 - OP Receptor (1-ATCT)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographi obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for larg 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, no discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

Wheeler Residence Glare Study

Wheeler Residence Glare Study Run 4

Created Sept. 30, 2022
Updated Nov. 4, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 76908.13596

Project type Basic
Project status: active
Category 10 to 100 kW
(1,000 kW / 8 acre limit)

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results

Glare with low potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	15.0	190.0	4,040	0	-

Component Data

PV Array(s)

Total PV footprint area: 0.13 acre

Name: PV array 1
Footprint area: 0.13 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603763	-116.147270	-149.20	18.17	-131.03
2	33.603692	-116.147573	-146.80	18.17	-128.63
3	33.603538	-116.147525	-148.86	16.33	-132.53
4	33.603606	-116.147222	-149.88	16.33	-133.55

2-Mile Flight Path Receptor(s)

Name: Jacqueline Cochran Regional Airport Runway 12
Description:
Threshold height : 50 ft
Direction: 137.3 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.630031	-116.170795	-116.11	50.00	-66.11
2-mile point	33.651286	-116.194362	-81.76	569.08	487.32

Name: Jacqueline Cochran Regional Airport Runway 17
Description:
Threshold height : 50 ft
Direction: 180.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.639150	-116.156423	-115.20	50.00	-65.20
2-mile point	33.668063	-116.156423	-91.47	579.69	488.22

Name: Jacqueline Cochran Regional Airport Runway 30
Description:
Threshold height : 50 ft
Direction: 314.2 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.620811	-116.159798	-133.98	50.00	-83.98
2-mile point	33.600636	-116.134898	-160.01	629.46	469.45

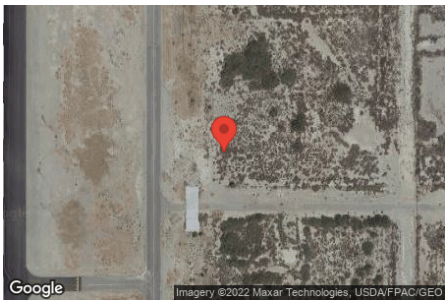
Name: Jacqueline Cochran Regional Airport Runway 35
Description:
Threshold height : 50 ft
Direction: 0.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.615814	-116.156430	-139.07	50.00	-89.07
2-mile point	33.586901	-116.156430	-157.27	621.62	464.36

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1-ATCT	33.627969	-116.154018	-133.40	50.00	-83.40

1-ATCT map image



Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	15.0	190.0	4,040	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-1 (green)	0	57	831	828	303	0	25	816	825	355	0	0
pv-array-1 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	4040	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

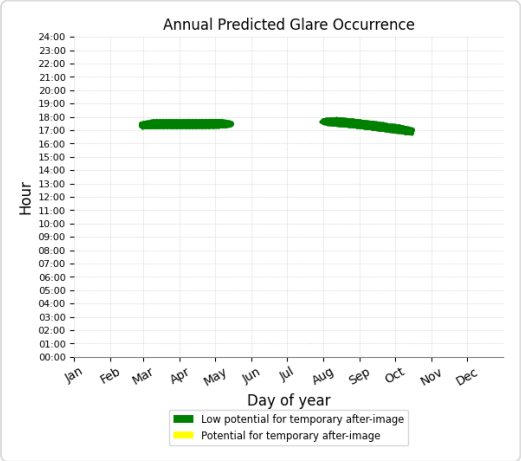
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

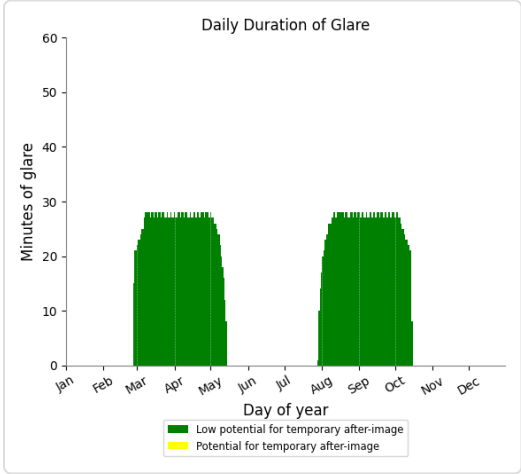
No glare found

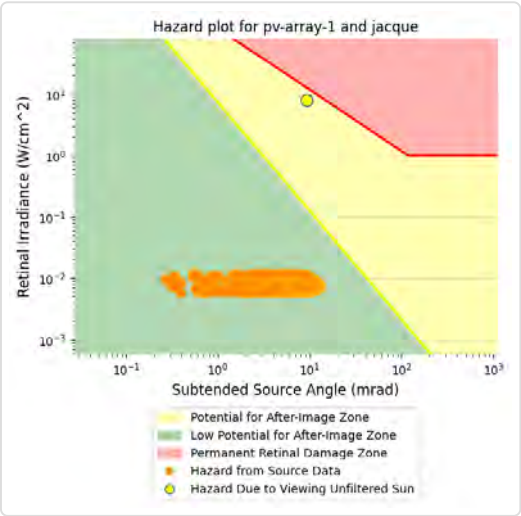
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

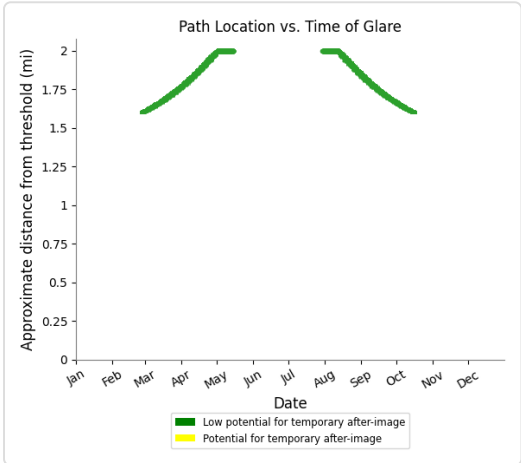
PV array is expected to produce the following glare for observers on this flight path:

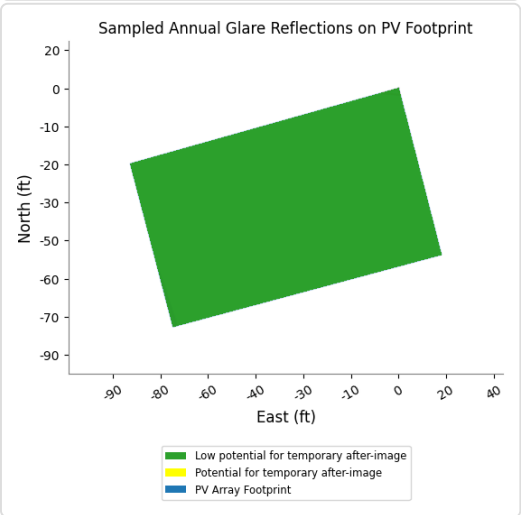
- 4,040 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

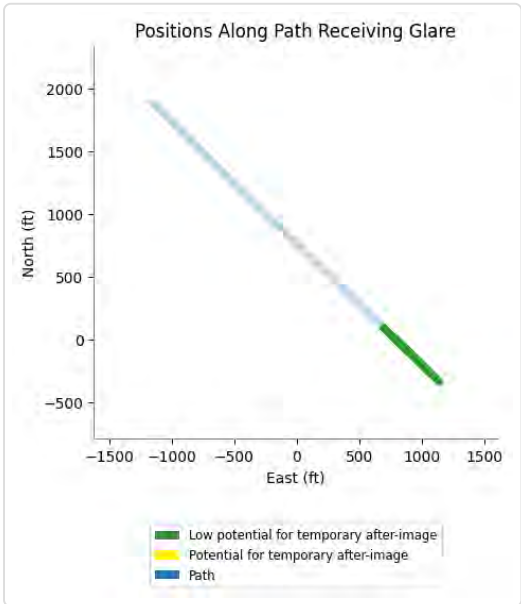












PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 1 - OP Receptor (1-ATCT)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographi obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for larg 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, no discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

Wheeler Residence Glare Study

Wheeler Residence Glare Study

Created Sept. 30, 2022
Updated Nov. 4, 2022
Time-step 1 minute
Timezone offset UTC-8
Site ID 76898.13596

Project type Basic
Project status: active
Category 10 to 100 kW
(1,000 kW / 8 acre limit)

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results

Glare with low potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	15.0	190.0	3,125	0	-
PV array 2	15.0	190.0	3,098	0	-
PV array 3	15.0	190.0	3,061	0	-

Component Data

PV Array(s)

Total PV footprint area: 0.04 acre

Name: PV array 1
Footprint area: 0.01 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

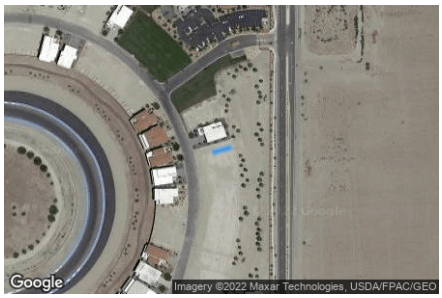
Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603763	-116.147270	-149.20	18.17	-131.03
2	33.603720	-116.147454	-148.15	18.17	-129.98
3	33.603694	-116.147447	-149.30	16.33	-132.97
4	33.603737	-116.147262	-149.69	16.33	-133.36

Name: PV array 2
Footprint area: 0.01 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

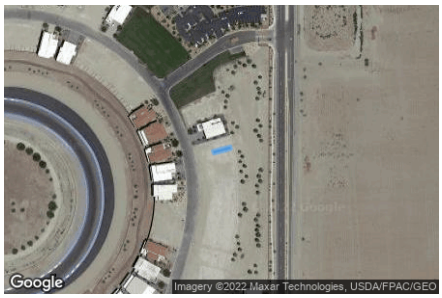
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603726	-116.147259	-149.77	18.17	-131.60
2	33.603684	-116.147447	-149.55	18.17	-131.38
3	33.603657	-116.147439	-150.03	16.33	-133.70
4	33.603700	-116.147250	-149.97	16.33	-133.64



Name: PV array 3
Footprint area: 0.01 acre
Axis tracking: Fixed (no rotation)
Tilt: 15.0 deg
Orientation: 190.0 deg

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.603644	-116.147436	-150.12	18.17	-131.95
2	33.603687	-116.147244	-149.95	18.17	-131.78
3	33.603663	-116.147238	-150.02	16.33	-133.69
4	33.603620	-116.147427	-150.18	16.33	-133.85



2-Mile Flight Path Receptor(s)

Name: Jacqueline Cochran Regional Airport Runway 12
Description:
Threshold height : 50 ft
Direction: 139.4 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.630161	-116.170939	-117.09	50.00	-67.09
2-mile point	33.652111	-116.193568	-85.71	572.05	486.34

Name: Jacqueline Cochran Regional Airport Runway 17
Description:
Threshold height : 50 ft
Direction: 180.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.639150	-116.156423	-115.20	50.00	-65.20
2-mile point	33.668063	-116.156423	-91.47	579.69	488.22

Name: Jacqueline Cochran Regional Airport Runway 30
Description:
Threshold height : 50 ft
Direction: 312.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.620522	-116.159460	-132.38	50.00	-82.38
2-mile point	33.601183	-116.133619	-161.64	632.69	471.05

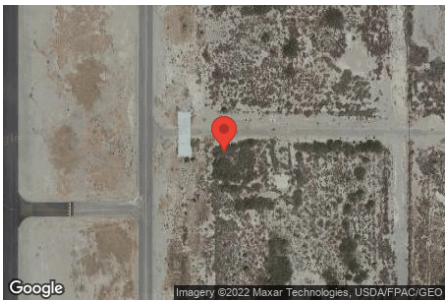
Name: Jacqueline Cochran Regional Airport Runway 35
Description:
Threshold height : 50 ft
Direction: 0.0 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	33.615814	-116.156430	-139.07	50.00	-89.07
2-mile point	33.586901	-116.156430	-157.27	621.62	464.36

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
1-ATCT	33.627295	-116.153934	-129.52	50.00	-79.52

1-ATCT map image



Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	15.0	190.0	3,125	0	-	-
PV array 2	15.0	190.0	3,098	0	-	-
PV array 3	15.0	190.0	3,061	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-1 (green)	0	103	730	727	0	0	0	448	788	329	0	0
pv-array-1 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-2 (green)	0	104	733	710	0	0	0	431	789	331	0	0
pv-array-2 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-3 (green)	0	103	731	692	0	0	0	419	788	328	0	0
pv-array-3 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	3125	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

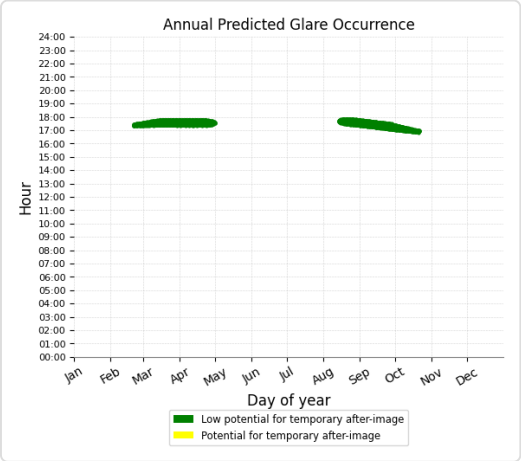
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

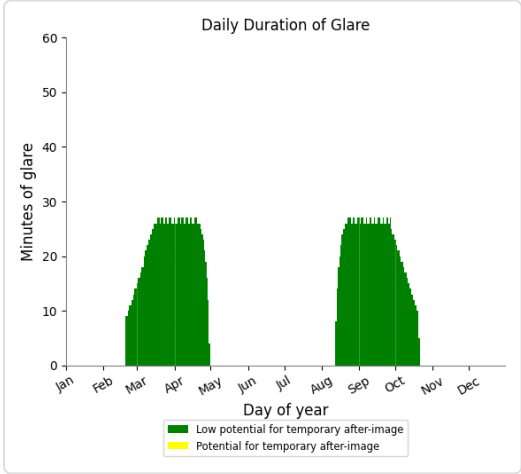
No glare found

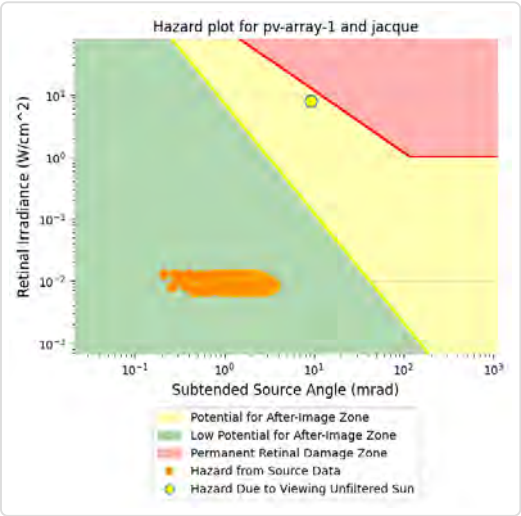
PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

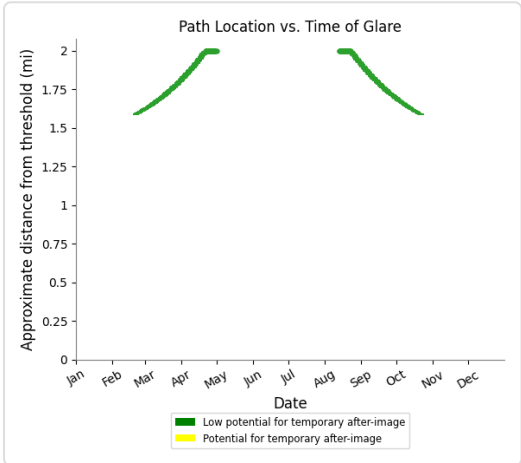
PV array is expected to produce the following glare for observers on this flight path:

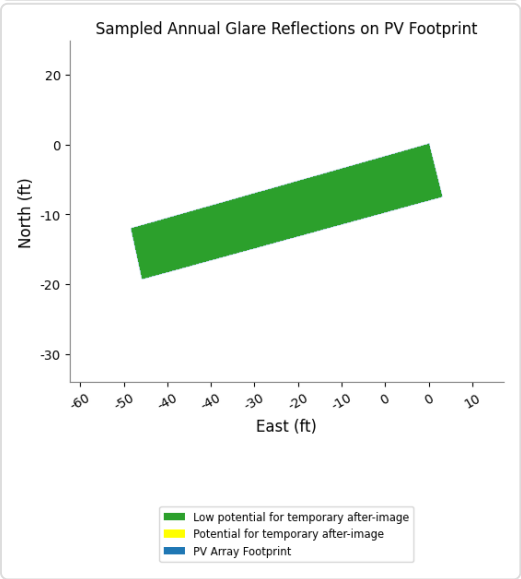
- 3,125 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

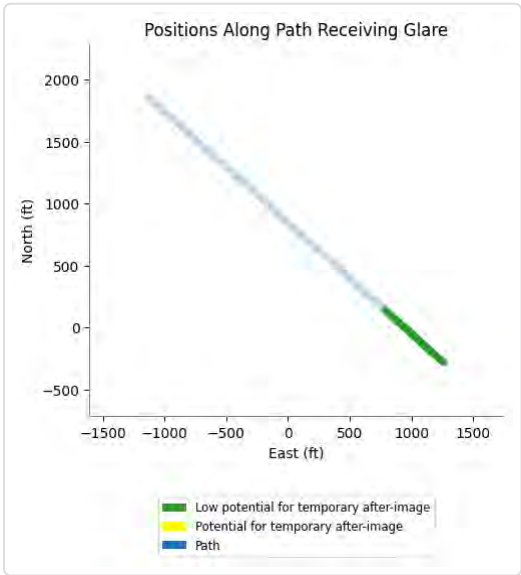












PV array 1 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 1 - OP Receptor (1-ATCT)

No glare found

PV array 2 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	3098	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

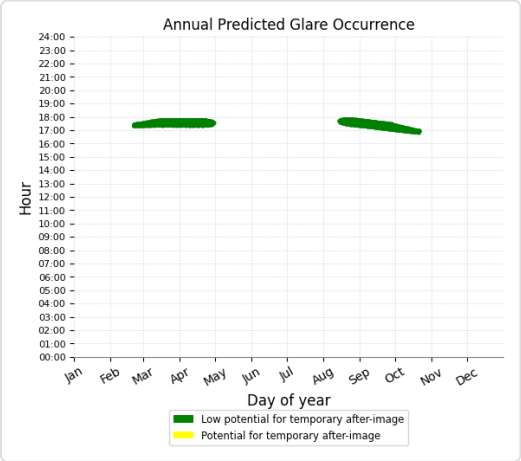
PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

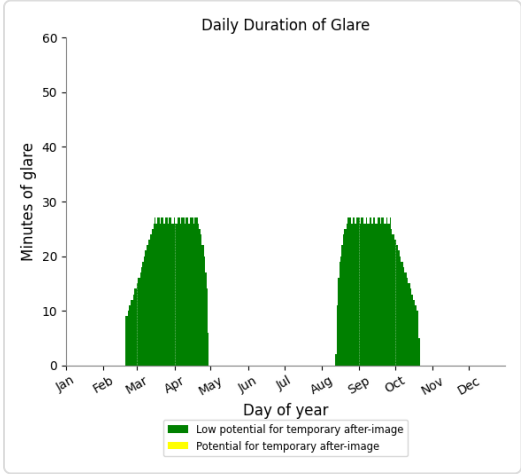
No glare found

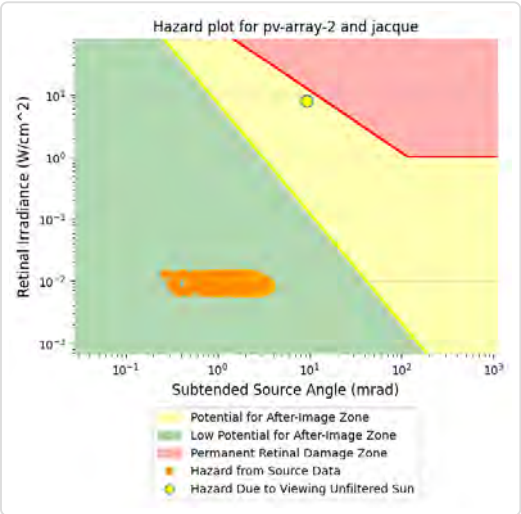
PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

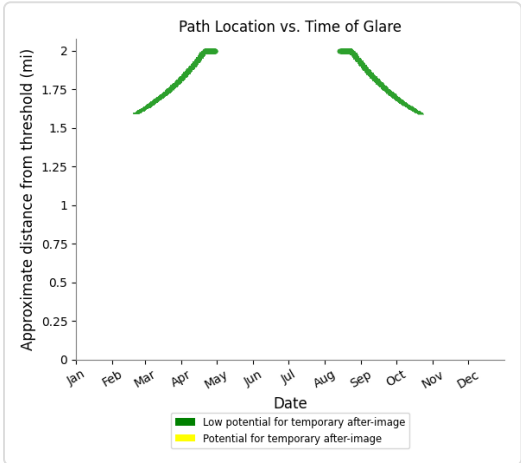
PV array is expected to produce the following glare for observers on this flight path:

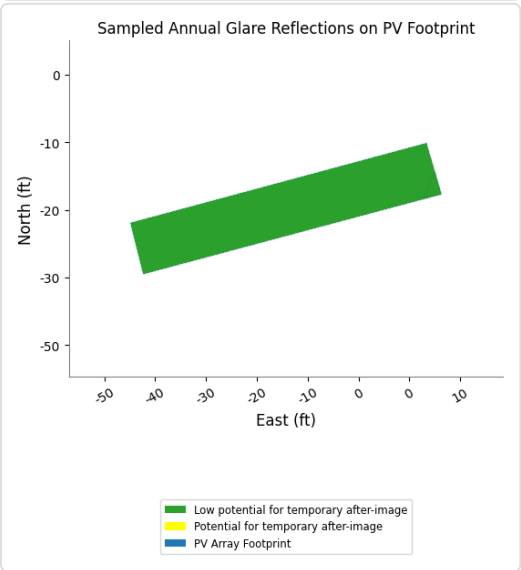
- 3,098 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

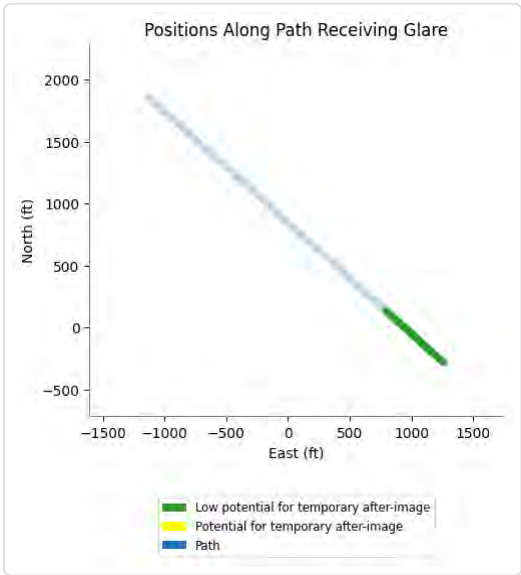












PV array 2 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 2 - OP Receptor (1-ATCT)

No glare found

PV array 3 low potential for temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: Jacqueline Cochran Regional Airport Runway 12	0	0
FP: Jacqueline Cochran Regional Airport Runway 17	0	0
FP: Jacqueline Cochran Regional Airport Runway 30	3061	0
FP: Jacqueline Cochran Regional Airport Runway 35	0	0
OP: 1-ATCT	0	0

PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 12)

No glare found

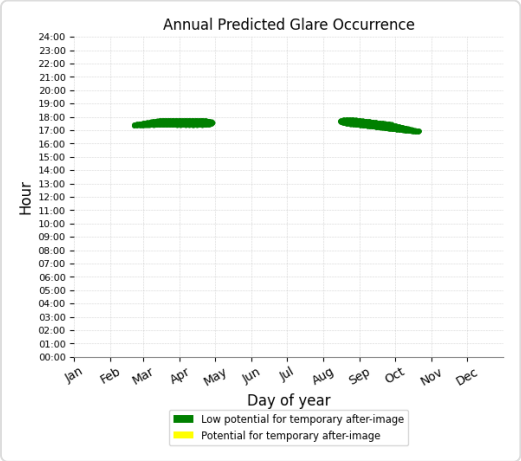
PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 17)

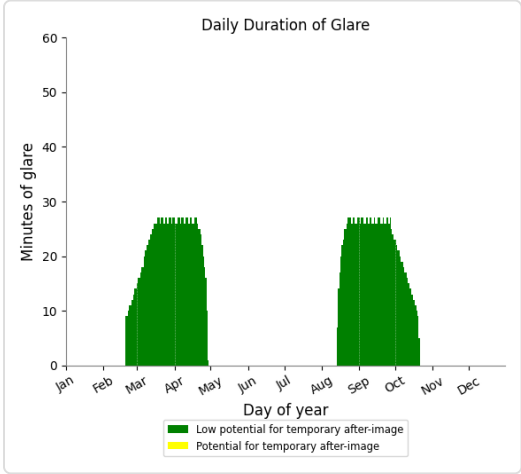
No glare found

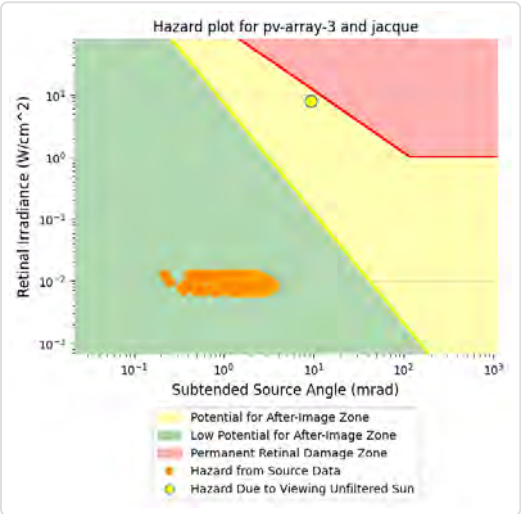
PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 30)

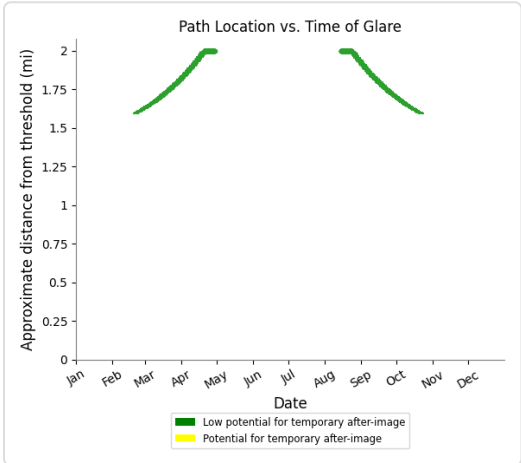
PV array is expected to produce the following glare for observers on this flight path:

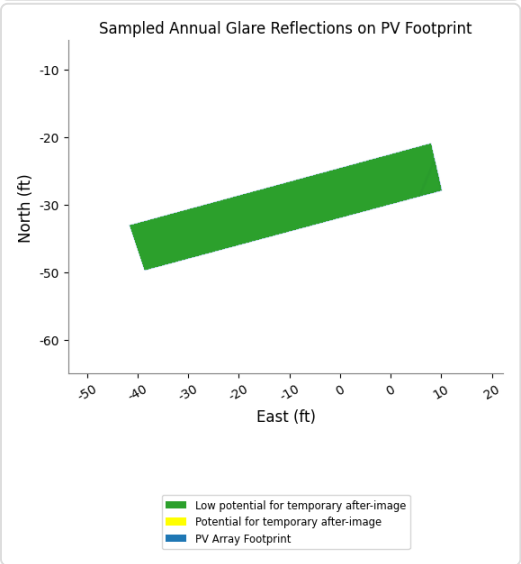
- 3,061 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

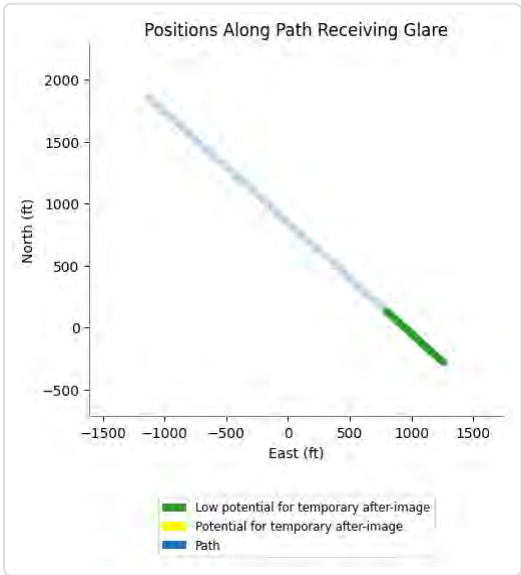












PV array 3 - Receptor (Jacqueline Cochran Regional Airport Runway 35)

No glare found

PV array 3 - OP Receptor (1-ATCT)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographi obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for larg 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, no discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

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County Administrative Center
4080 Lemon St.,14th Floor.
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

November 8, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1070TH22
Related File No.:	BRS2202721(Building Permit)
APN:	759-250-003

Dear Mr. Shahrouri:

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 Riverside County Building and Safety Case No. BRS2202721 (Building Permit), a proposal to construct a 596.4 square foot rooftop solar panel system on a proposed residence located at 60933 Watkins Glen Drive within the Thermal Motorclub.

The site is located within Airport Compatibility Zone C of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone C of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to 0.2 dwelling units per acre or less. The proposed rooftop solar panels will not generate any density.

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 2,436 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 –113.5 feet below MSL. The site's elevation is -145.8 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -103.8 feet AMSL. Therefore, review by the FAA OES and a Determination of No Hazard to Air Navigation letter will be required prior to building permit issuance.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 596.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 178 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 930 minutes of "green" level glare, lasting up to 10 minutes a day from March to September from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 5 degrees and orientation of 178 degrees. Solar panels shall be limited to a total of 596.4 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

5. Prior to building permit issuance, an application to the Federal Aviation Administration Obstruction Evaluation Service shall be made and a Determination of No Hazard to Air Navigation letter is issued in the event the building's top point elevation exceeds the FAA notification threshold of -113.5 below MSL.

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: Fullerton Architects, P.C. (applicant/representative)
JTM Land Co. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1070TH22\ZAP1070TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

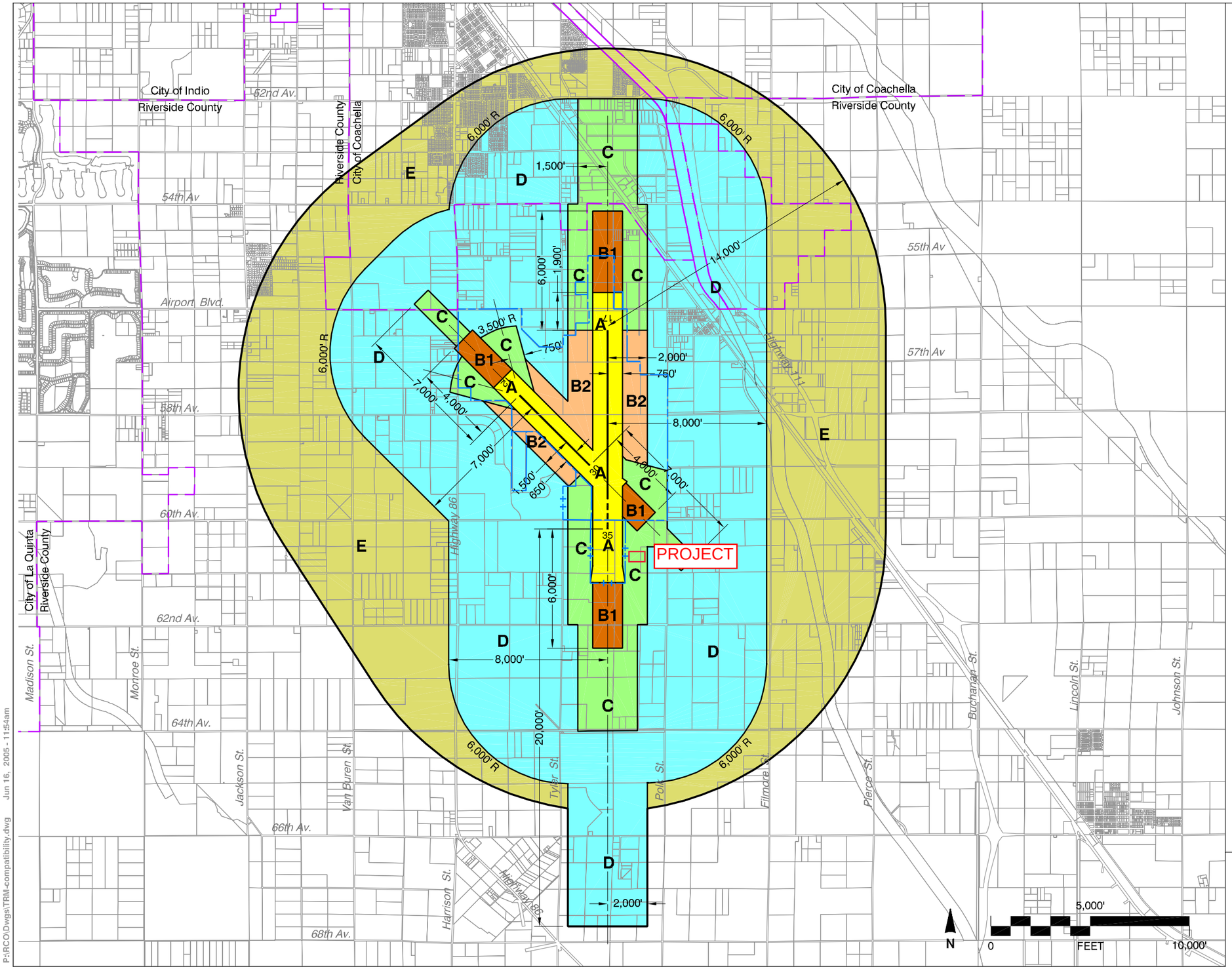
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

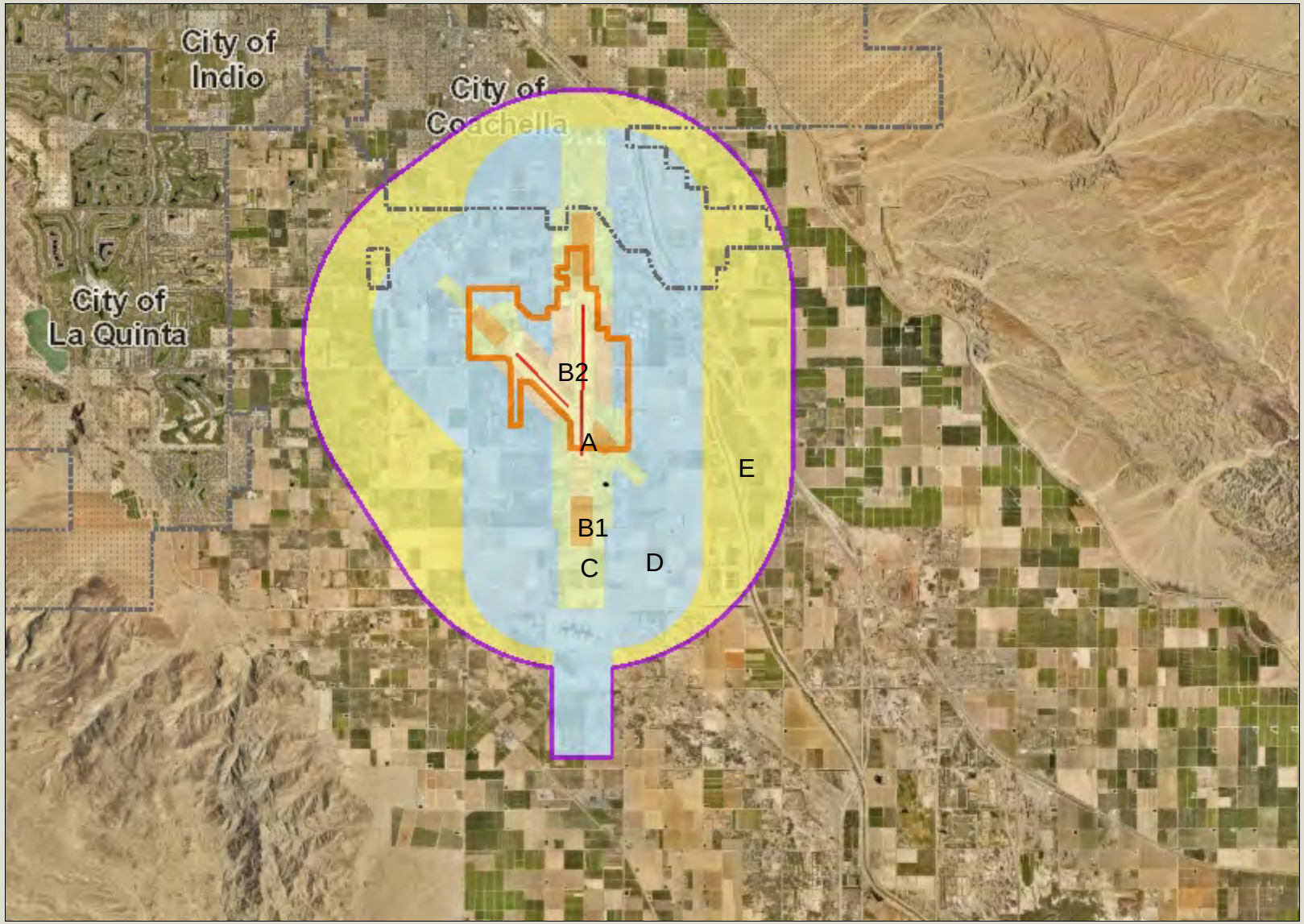
Map JC-1

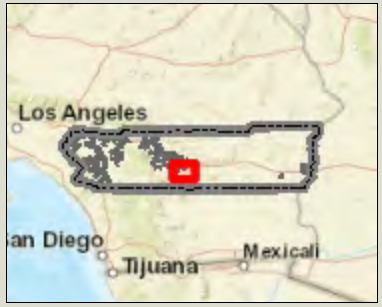
Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map





Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 12,314 24,629 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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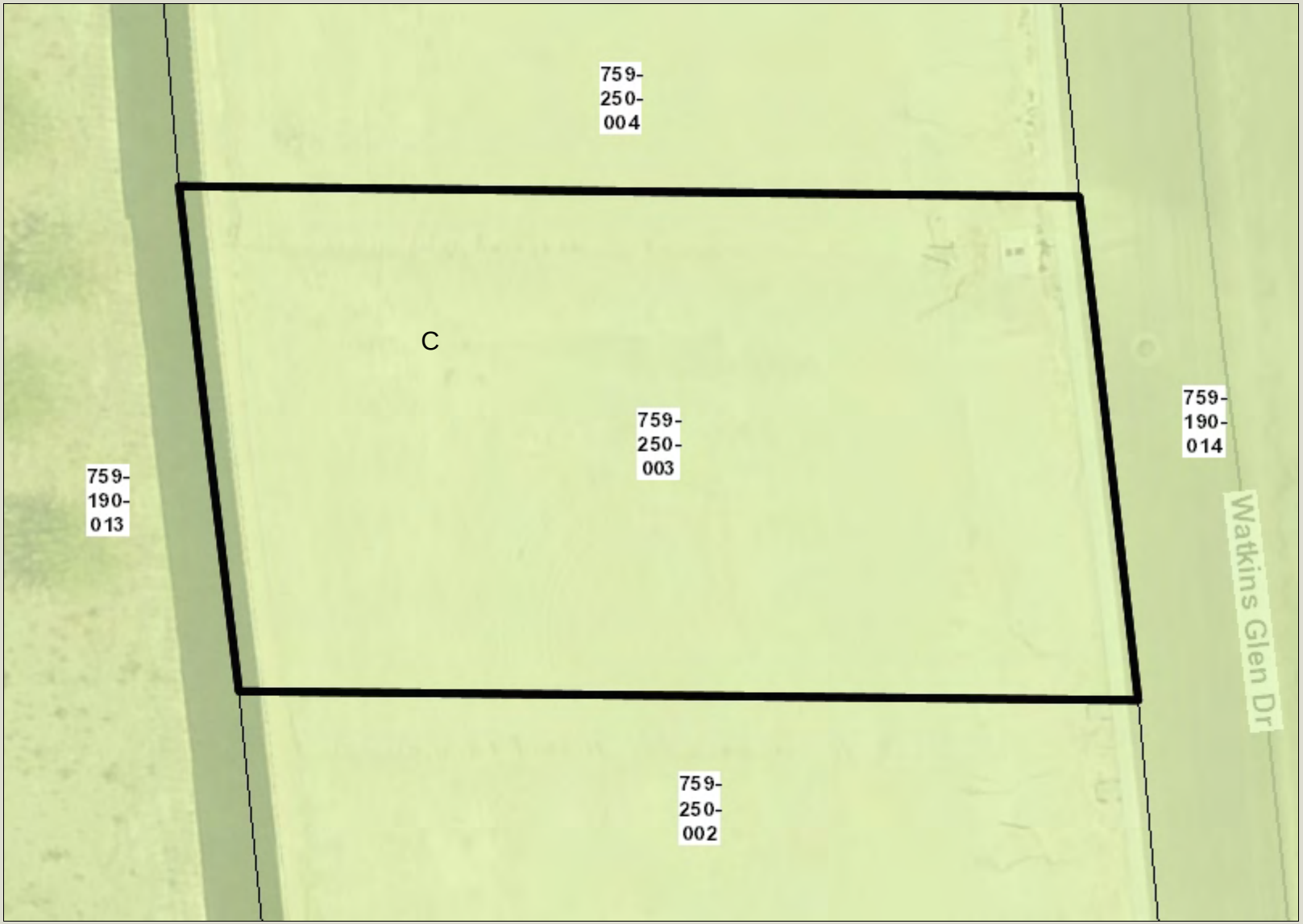
Notes

Map My County Map



Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 24 48 Feet

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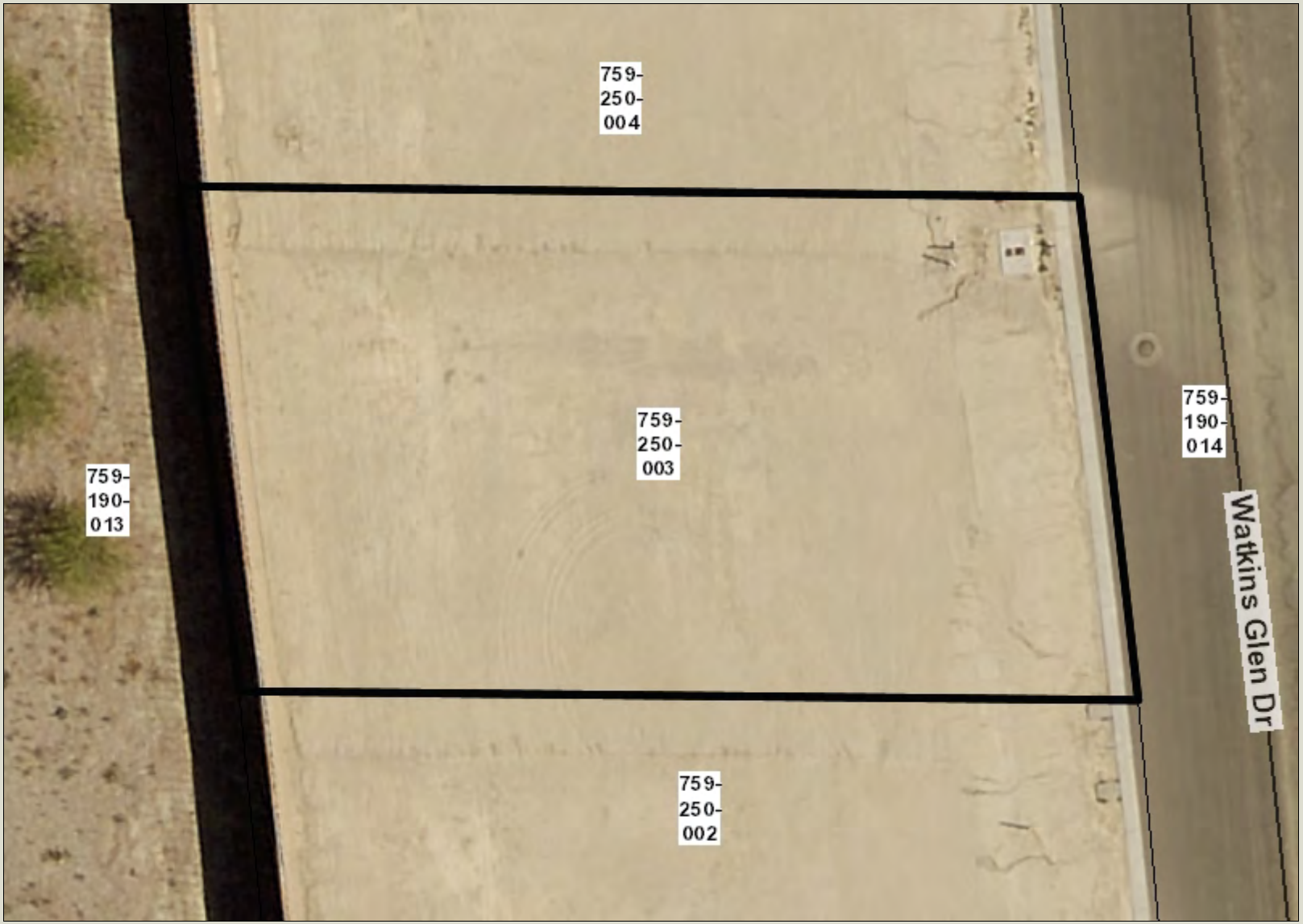

Legend

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

0 24 48 Feet

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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 3,079 6,157 Feet

REPORT PRINTED ON... 10/27/2022 3:00:05 PM

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Notes

Map My County Map

Legend

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

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0 1,539 3,079 Feet

REPORT PRINTED ON... 10/27/2022 3:00:52 PM

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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REPORT PRINTED ON... 10/27/2022 2:59:35 PM

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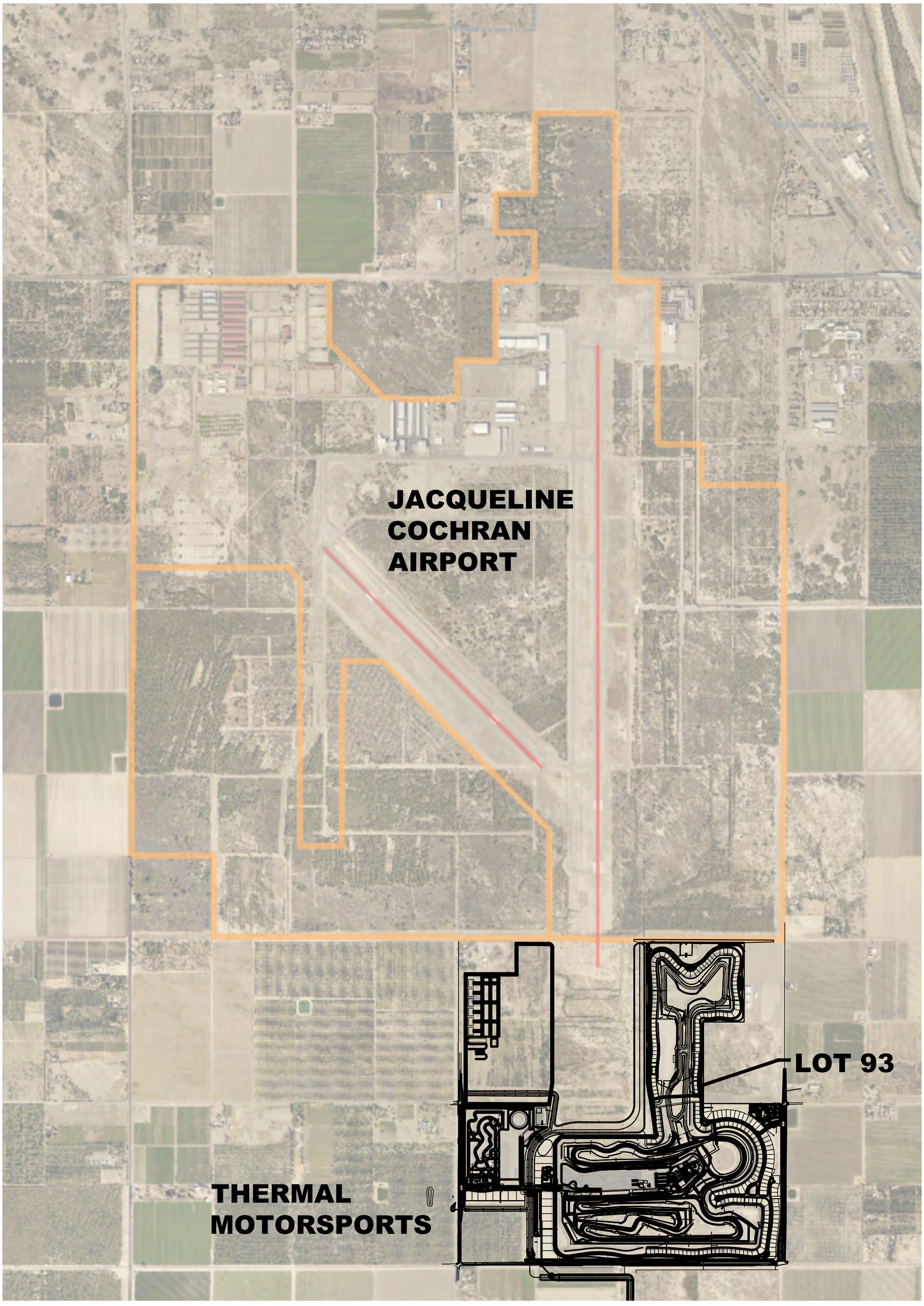
Notes



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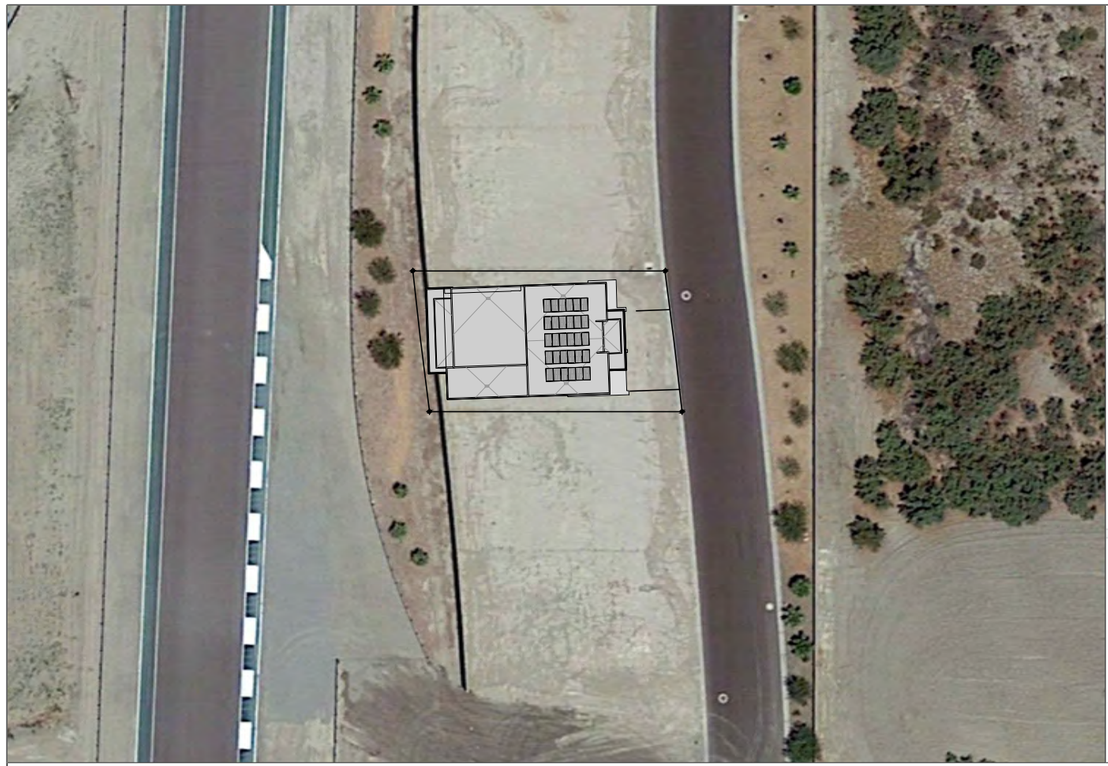
FEET

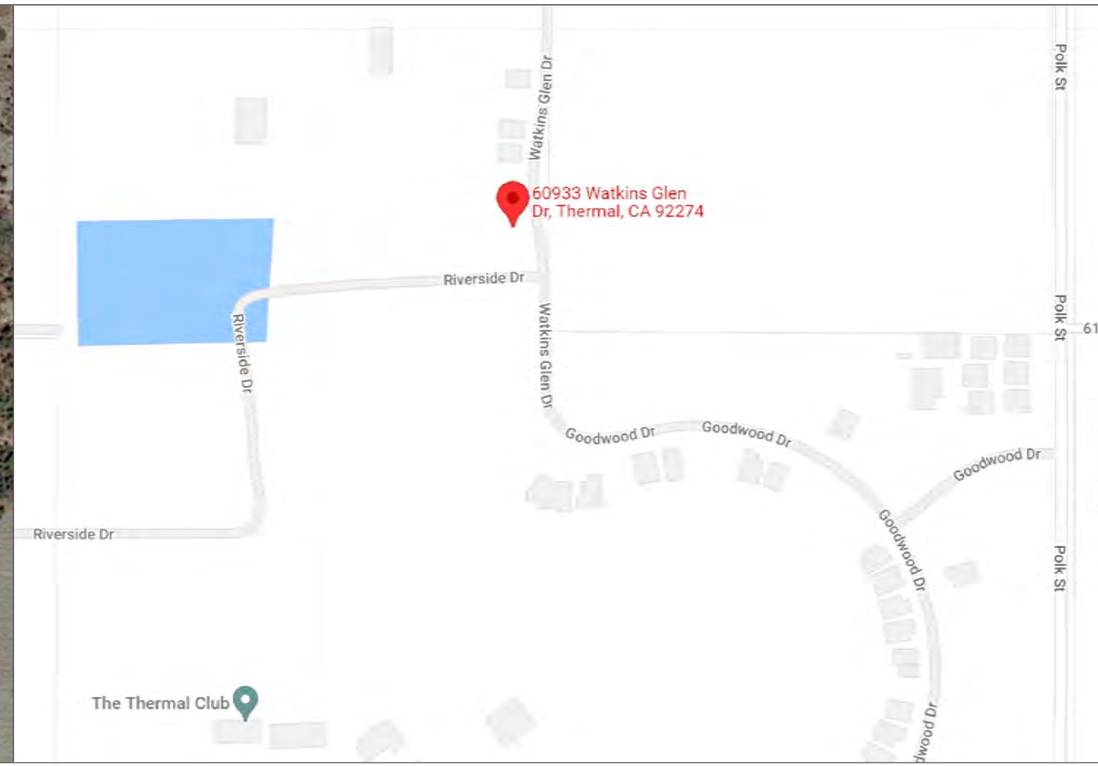
PLAN NORTH

N

1 SITE PLAN

SCALE: 1"= 1,500'





GENERAL NOTES:

1. ALL ELECTRICAL WORK TO BE INSTALLED BY A QUALIFIED LICENSED ELECTRICIAN AND APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN.
2. ALL SOLAR MODULES SHALL BE UL LISTED 1703 AND CEC APPROVED. ALL INVERTERS SHALL BE UL LISTED 1741SA CERTIFIED AND CEC APPROVED. ALL ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED AND APPROVED FOR IT'S PURPOSE AND INSTALLED IN A WORKMAN LIKE MANNER. ALL OUTDOOR EQUIPMENT SHALL MEET APPROPRIATE NEMA STANDARDS.
3. THIS SYSTEM IS INTENDED TO BE OPERATED IN PARALLEL WITH THE UTILITY SERVICE PROVIDER. ANTI-ISLANDING PROTECTION IS A REQUIREMENT OF UL1741 AND IS INTENDED TO PREVENT THE OPERATION OF THE PHOTOVOLTAIC SYSTEM WHEN THE UTILITY GRID IS NOT IN OPERATION.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE LOCAL UTILITY SERVICE PROVIDER.
5. THE METHOD OF MOUNTING SHALL BE DONE IN ACCORDANCE WITH THE RACKING MANUFACTURER TO MEET DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREMENTS. PHOTOVOLTAIC MODULES WILL BE SECURED AND MOUNTED ON THE ROOF AS SPECIFIED ON THE STRUCTURAL SHEETS. EXISTING ROOF EQUIPMENT WILL NOT BE EFFECTED BY THE PHOTOVOLTAIC SYSTEM OR INSTALLATION.
6. ALL FASTENERS SHALL BE CORROSION RESISTANT APPROPRIATE FOR THE SITE CONDITIONS.
7. ALL ROOFING REPAIRS MUST MAINTAIN EXISTING CLASS AND TYPE OF ROOF AND ALL WORK SHALL BE IN ACCORDANCE WITH THE ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
8. TO BE INSTALLED IN SUCH A MANNER THAT IS DISCREET AND DOES NOT DETRACT FROM THE HOMES ARCHITECTURE

DESCRIPTION OF WORK:

ROOF MOUNTED PHOTOVOLTAIC (SOLAR ELECTRIC) INSTALLATION TILT MOUNTED @ 5° FACING AN AZIMUTH OF 178° CONSISTING OF (30) PANASONIC EVPV400H - 400 WATT MODULES (12.0Kw).

RACK MOUNTING SYSTEM IS UNIRAC SOLARMOUNT ALUMINUM SUPPORT RAILS AND FAST JACK SOLAR STANCHIONS.

INSTALLATION SHALL COMPLY WITH THE FOLLOWING CODES:

CEC 2019 - ARTICLE 690, 705,706 AND OTHERS NEC 2020 705.13
CPC 2019
CBC 2019
CMC 2019
CFC 2019

DRAWING SHEETS:

COVER SHEET	PV-0.0
SITE PLAN	PV-1.0
ROOF PLAN	PV-2.0
SINGLE LINE DIAGRAM	PV-3.0
MOUNTING DETAIL	PV-4.0
WARNING LABELING	PV-5.0

SPECIFICATION SHEETS:
EVPV400H MODULE
SE11400H-US INVERTER
UNIRAC CERTIFICATION

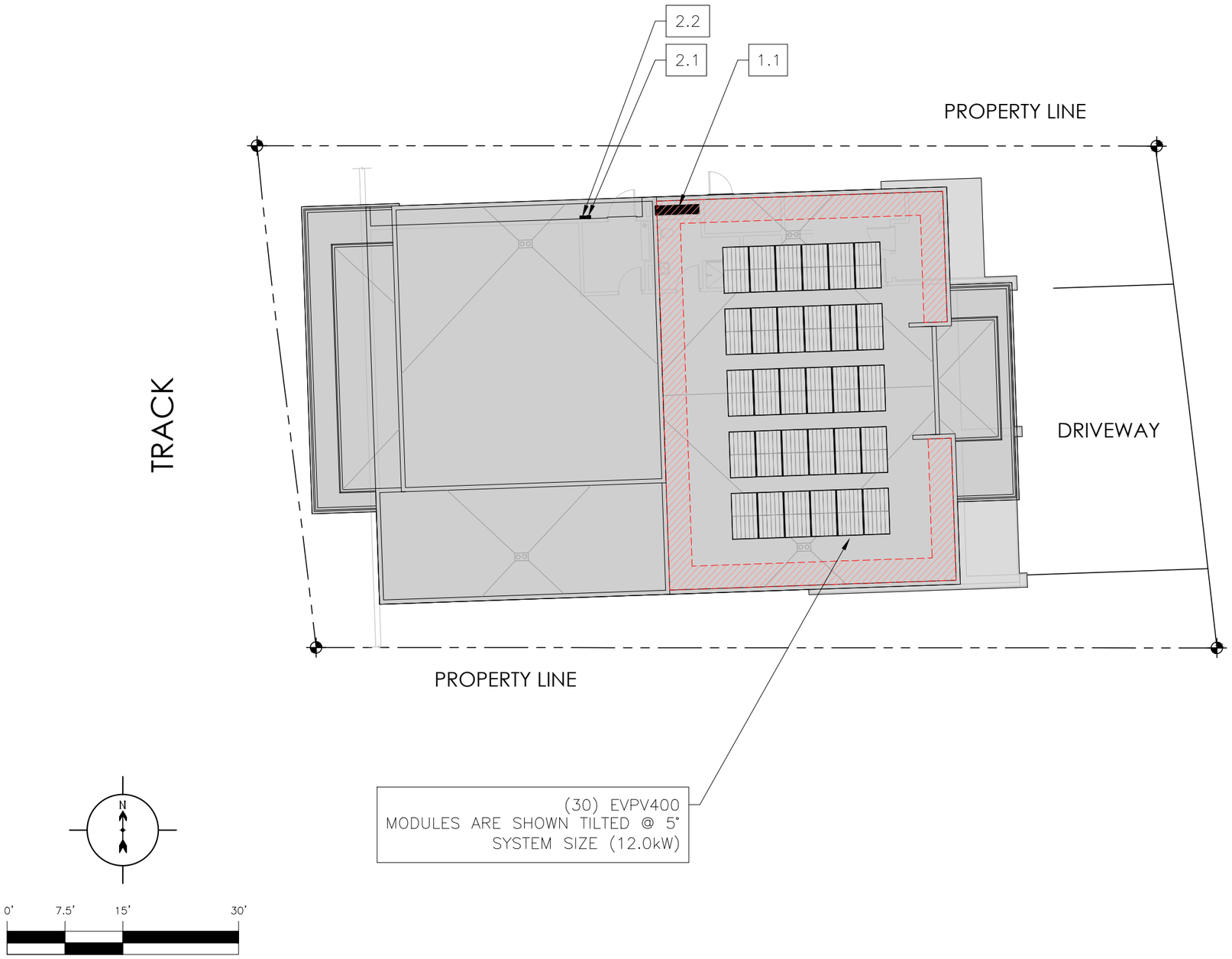
Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title: Thermal Lot 93
COVER SHEET
60933 Watkins Glenn Drive
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/21
Scale: NTS
Job Number: 22198
Sheet Number:
PV-0.0
Sheet



SITE PLAN KEYNOTE:

EXISTING ELECTRICAL

1.1 600A MAIN ELECTRICAL PANEL

NEW ELECTRICAL
(ADJACENT TO MSP)

2.1 SYSTEM AC DISCONNECT
2.2 SE11400H-US PV INVERTER

SITE LEGEND

FIRE EASEMENT/ACCESS

EAVE SETBACK/WALL

Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
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Palm Springs, CA 92262
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info@HotPurpleEnergy.com
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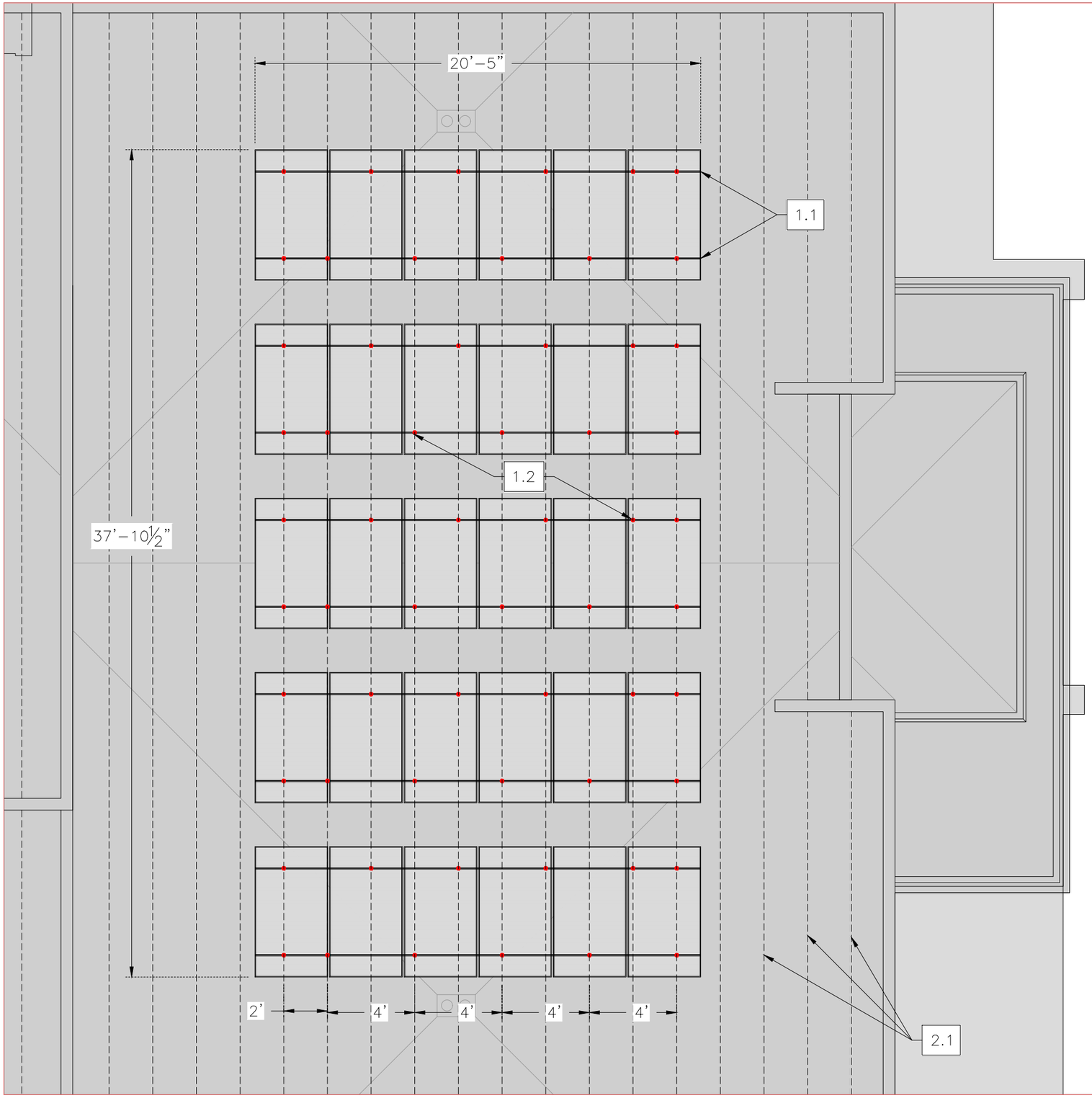
Title:
Thermal Lot 93
SITE PLAN
60933 Watkins Glenn Drive
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/21
Scale: 1" = 15'
Job Number: 22198
Sheet Number:

PV-1.0

Sheet



NO ROOF VENTS, ATTIC VENTS OR OTHER NECESSARY BUILDING COMPONENTS MAY BE COVERED OR ALTERED BY THE INSTALLATION OF THE NEW PV ARRAY

MOUNT PLAN KEYNOTE:

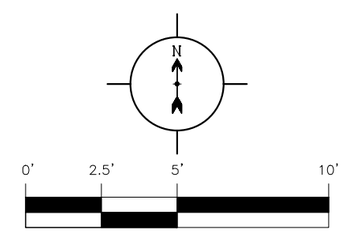
RACK MOUNT COMPONENTS

1.1 UNIRAC ALUMINUM SUPPORT RAIL
1.2 FAST JACK SOLAR STANCHIONS

STRUCTURAL

2.1 ROOF SUPPORTS 16" TJI 210 @ 24" O.C TYP.

1. VERIFY RAFTER SPACING IN THE FIELD BEFORE ATTACHING MOUNTS ROOF.
2. ENSURE THAT MOUNTING LAGS PENETRATE CENTER OF RAFTERS AND MAKE STRUCTURAL CONNECTION TO THE RAFTERS.
3. STRUCTURAL CONNECTION TO ENGINEERED TRUSS SHALL BE MADE BY 3-1/2" X 5/16" STAINLESS STEEL LAG SCREWS 3" MIN. EMBEDMENT.
4. ALL MOUNTS SHALL BE 20" FROM ALL VALLEYS.
5. PHOTOVOLTAIC MODULES SHALL HAVE 2.0 MOUNTS (LAG SCREWS) PER PANEL.
6. (E) ROOF STRUCTURE IS FLAT 16" TJI 210 @ 24" O.C TYP.
7. (E) ROOFING MATERIAL IS 1 LAYER OF TPO OVER 1 LAYER OF 30LB. FELT PAPER AND 1/2" OSB PLYWOOD DECKING.
8. MODULE DIMENSIONS 71.4" x 40.0"



48" SPACING BETWEEN MOUNTS IS TYPICAL - MAX SPAN 6'

Analysis of dead load weight added to roof by installation of solar array

Array #1

Panasonic EVPV400H	45.00	pounds		
No. of solar modules	30			
Total weight of modules	1,350	pounds		
Weight of each Solar Rack set	10	pounds		
No. of rack sets	30.0			
Total weight of rack sets	287	pounds		
Total weight of solar array	1,637	pounds	2.0	mounts per module
Height of each module	5.97	feet	4.0	lags per module with tile hooks
Width of each module	3.33	feet		
Area of one module	19.9	square feet		
Area of entire solar array	596.4	square feet		
Weight of solar array per unit area of roof	2.7	pounds/square foot		
No. of stanchions connected to roof joist rafters	60			
Weight loading per stanchion	27.3	pounds/connection		

Revisions:	Date:
Rev A	10/10/22

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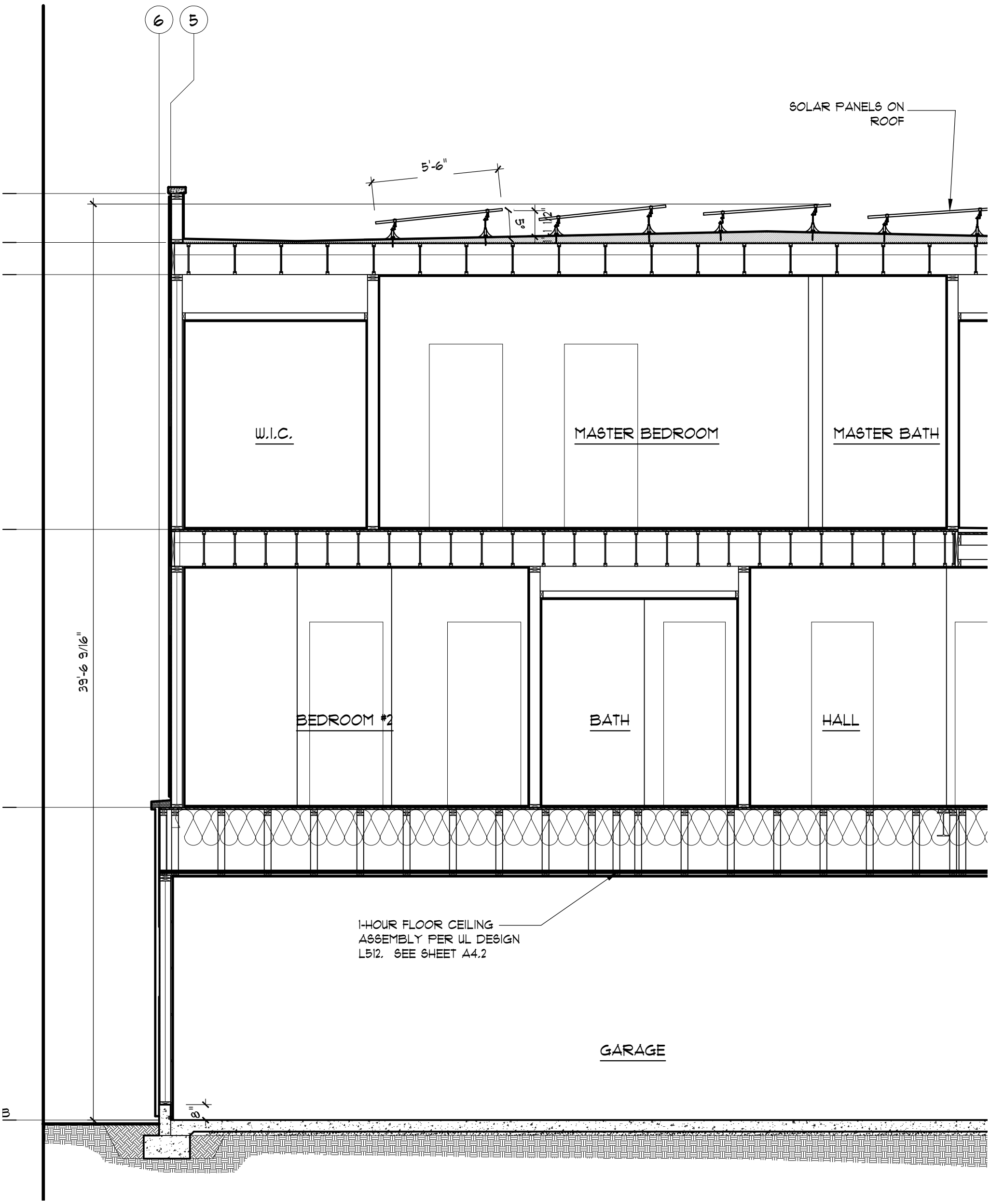
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 93
ROOF PLAN
60933 Watkins Glenn Drive
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/21
Scale: 1" = 5'
Job Number: 22198
Sheet Number: PV-2.0
Sheet



1 PARTIAL BUILDING SECTION

SCALE: 1/4"= 1'-0"

THERMAL MOTORSPORTS - LOT 93

FORGESOLAR GLARE ANALYSIS

Project: **Riverside Co Residential**
Four rooftop PV arrays near KTRM airport, Thermal CA

Site configuration: **4 homes - Lots 15 25 42 93 - 17 Oct 2022**
Analysis conducted by Dave Belote (dave@darestrategies.com) at 16:41 on 17 Oct, 2022.

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: 77735.8001
Methodology: V1

PV Array(s)

Name: 60933 Watkins Glen Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.606283	-116.151325	-147.39	39.71	-107.68
2	33.606285	-116.151252	-147.46	39.71	-107.75
3	33.606385	-116.151257	-147.50	40.21	-107.29
4	33.606382	-116.151331	-147.47	40.21	-107.26

Name: 86756 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.599010	-116.150892	-150.22	40.21	-110.01
2	33.598945	-116.150890	-150.95	39.71	-111.24
3	33.598948	-116.150791	-150.15	39.71	-110.44
4	33.599014	-116.150792	-148.99	40.21	-108.79

Name: 86876 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 181.0°
Rated power: 12.0 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	33.599003	-116.148748	-146.47	40.21	-106.26
2	33.598943	-116.148750	-147.69	39.71	-107.98
3	33.598937	-116.148677	-147.60	39.71	-107.89
4	33.599000	-116.148673	-147.27	40.21	-107.06

Name: 86909 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 183.0°
Rated power: 12.0 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	33.601326	-116.148475	-152.91	40.21	-112.70
2	33.601267	-116.148477	-152.48	39.71	-112.77
3	33.601264	-116.148374	-151.66	39.71	-111.95
4	33.601323	-116.148373	-152.04	40.21	-111.83

Flight Path Receptor(s)

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	33.630183	-116.171005	-117.94	50.00	-67.94
Two-mile	33.650628	-116.195587	-80.78	566.27	485.49

Name: Rwy 17
Description:
Threshold height: 50 ft
Direction: 180.2°
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	33.639142	-116.156425	-115.33	50.00	-65.33
Two-mile	33.668054	-116.156286	-91.22	579.32	488.10

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	33.620459	-116.159390	-132.29	50.00	-82.29
Two-mile	33.600014	-116.134810	-157.22	628.35	471.14

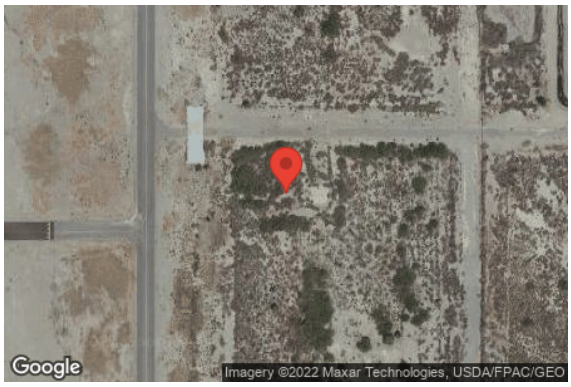
Name: Rwy 35
Description:
Threshold height: 50 ft
Direction: 0.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.615802	-116.156431	-139.06	50.00	-89.06
Two-mile	33.586890	-116.156552	-156.00	620.37	464.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.627040	-116.153590	-129.99	50.00

Map image of 1-ATCT



GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
60933 Watkins Glen Dr	5.0	178.0	930	0	25,910.0
86756 Rogers Way	5.0	178.0	53	0	25,920.0
86876 Rogers Way	5.0	181.0	70	0	25,920.0
86909 Newton Way	5.0	183.0	456	0	25,910.0

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1509	0
Rwy 35	0	0
1-ATCT	0	0

Results for: 60933 Watkins Glen Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	930	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

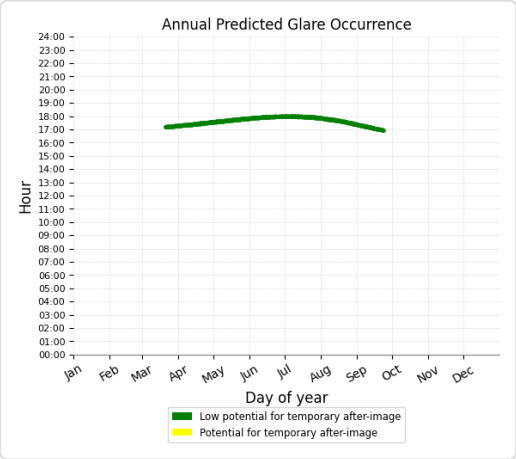
0 minutes of yellow glare
0 minutes of green glare

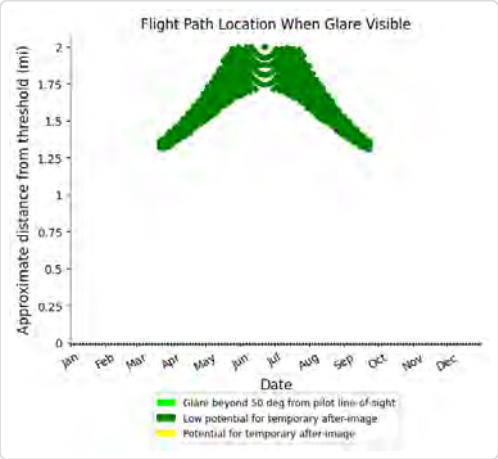
Flight Path: Rwy 17

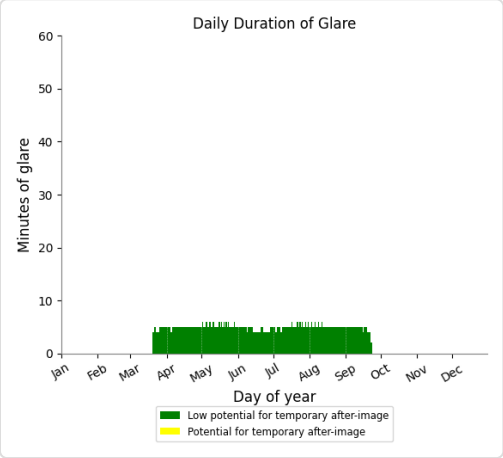
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
930 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86756 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	53	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

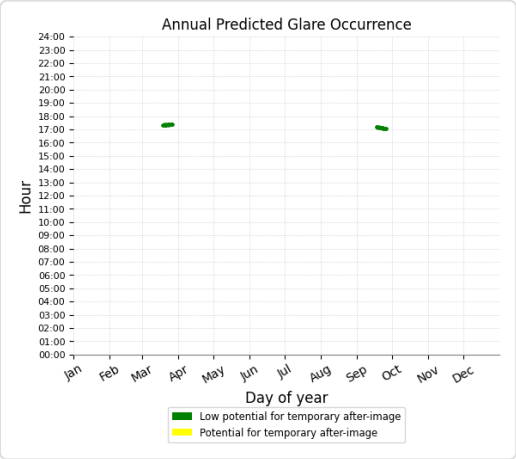
Flight Path: Rwy 17

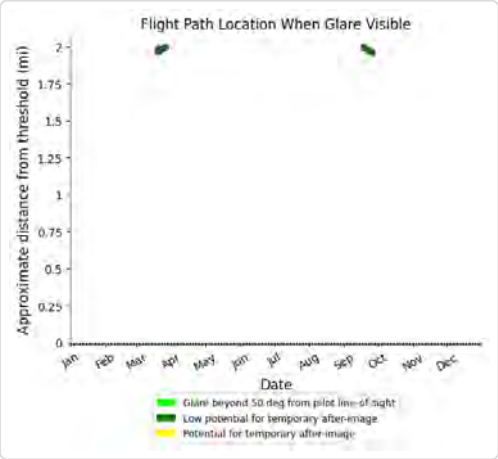
0 minutes of yellow glare
0 minutes of green glare

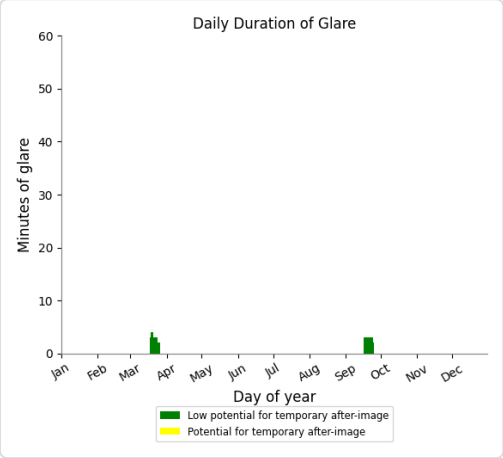
Flight Path: Rwy 30

0 minutes of yellow glare

53 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86876 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	70	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

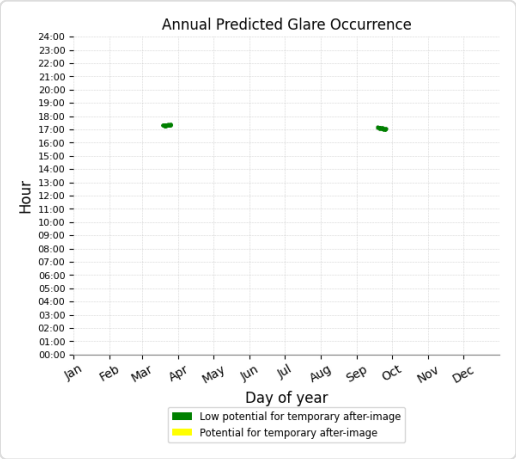
0 minutes of yellow glare
0 minutes of green glare

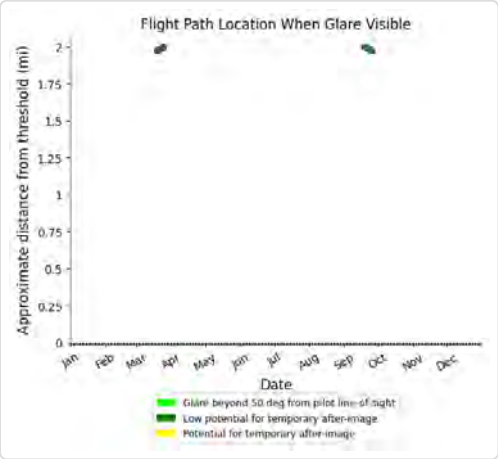
Flight Path: Rwy 17

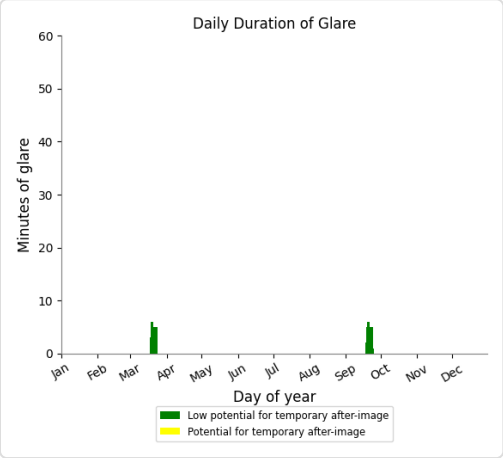
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
70 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86909 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	456	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

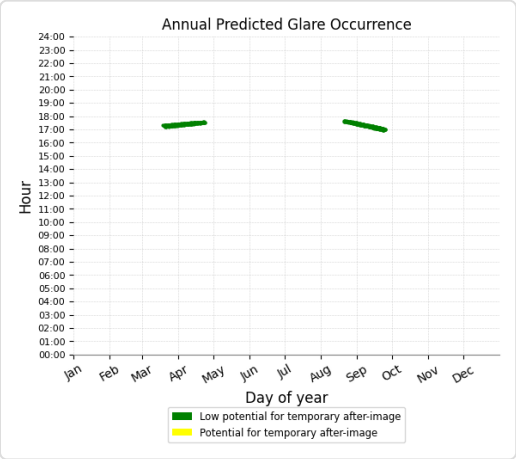
0 minutes of yellow glare
0 minutes of green glare

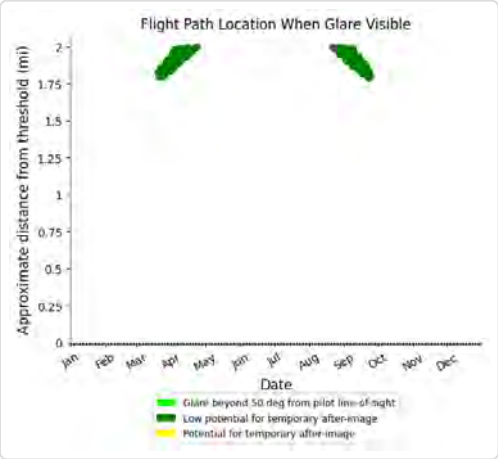
Flight Path: Rwy 17

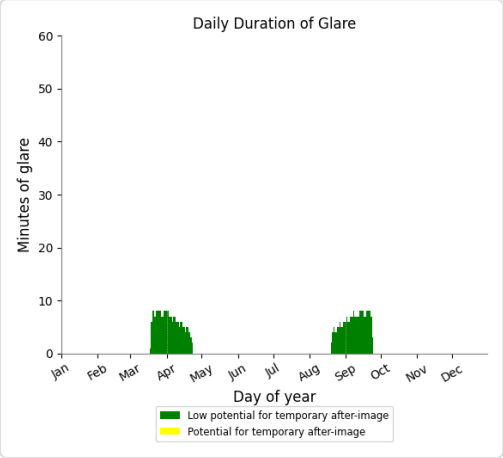
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
456 minutes of green glare







Flight Path: Rwy 35

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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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

CHAIR
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STAFF

Director
Paul Rull

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Jackie Vega
Barbara Santos

County Administrative Center
4080 Lemon St.,14th Floor.
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

November 8, 2022

Sam Shahrouri, Deputy Director TLMA/Building Official
County of Riverside Building and Safety Department
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1071TH22
Related File No.:	BRS2202717 (Building Permit)
APN:	759-220-006

Dear Mr. Shahrouri:

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 Building and Safety Case No. BRS2202717 (Building Permit), a proposal to construct a 597.4 square foot rooftop solar panel system on a proposed residence located at 86909 Newton Way within the Thermal Motorclub.

The site is located within Airport Compatibility Zone D of the Jacqueline Cochran Regional Airport Influence Area (AIA). Within Compatibility Zone D of the Jacqueline Cochran Regional Airport Land Use Compatibility Plan, residential density is restricted to either below 0.2 dwelling units per acre or above 5.0 dwelling units per acre. The proposed rooftop solar panels will not generate any density.

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 4,447 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 –94 feet below MSL. The site's elevation is -149.3 feet MSL and the proposed building height (with rooftop solar panels) is 42 feet, resulting in a top point elevation of -107.3 feet AMSL. Therefore, review by the FAA OES was not required.

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 after-image ("green" level) are acceptable levels of glare on final approach (within 2 miles from end of runway) for solar facilities located on airport property and is the recommended standard for properties near airports. 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 597.4 square feet of solar panels on a proposed residence rooftop with a fixed tilt of 5 degrees with no rotation, and an orientation of 183 degrees. The solar glare study completed by Forge Solar was based on a 2 mile straight in approach (as per FAA Interim Policy Standards) to runways 17 and 35, and runways 12 and 30. Jacqueline Cochran Regional Airport does not have an air traffic control tower. All times are in standard time.

The analysis concluded that some potential glare would occur within the 2 mile approach to runway 30. (No glare is expected to occur within the 2 mile approach to runway 17-35). Evaluation of the approach at Runway 30 indicates that the panels would result in low potential for temporary after-image ("green" level glare), totaling annually 456 minutes of "green" level glare, lasting up to 10 minutes a day from March to April and from August to October from 5.00 p.m. to 5:30 p.m. Overall, less than one percent of annual daylight time would be affected. Glare from solar panels could potentially constitute a hazard to flight. However, based on the solar glare hazard analysis provided, the glare experienced would be an acceptable level for solar facilities on airports. Therefore, the hazard potential is low.

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.

Conclusion: This approval applies to the installation of solar panels as submitted. Any change to the solar array would require ALUC review. All previously applied conditions of approval from the original Thermal Motorclub project (ZAP1017TH10) remain applicable.

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:

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.

    (b) Any use or activity 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 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. All solar arrays installed on the project site shall consist of smooth glass with anti-reflective coating, a fixed tilt of 5 degrees and orientation of 183 degrees. Solar panels shall be limited to a total of 597.4 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.

3. In the event that any incidence of electrical interference affecting the safety of air navigation occurs as a result of project operation, upon notification to the airport operator of an incidence, 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 "incidence" includes any situation that results in an accident, incident, "near-miss," 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 incidence. For each such incidence 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.

4. In the event that any incidence of 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 incidence, 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 "incidence" 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, reprogramming the alignment of the panels, covering them at the time of day when incidences of glare occur, or wholly removing panels to diminish or eliminate the source of the glint, glare, or flash. For each such incidence 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.

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: Fullerton Architects, P.C. (applicant/representative))
JTM Land Co. (property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\JCRA\ZAP1071TH22\ZAP1071TH22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

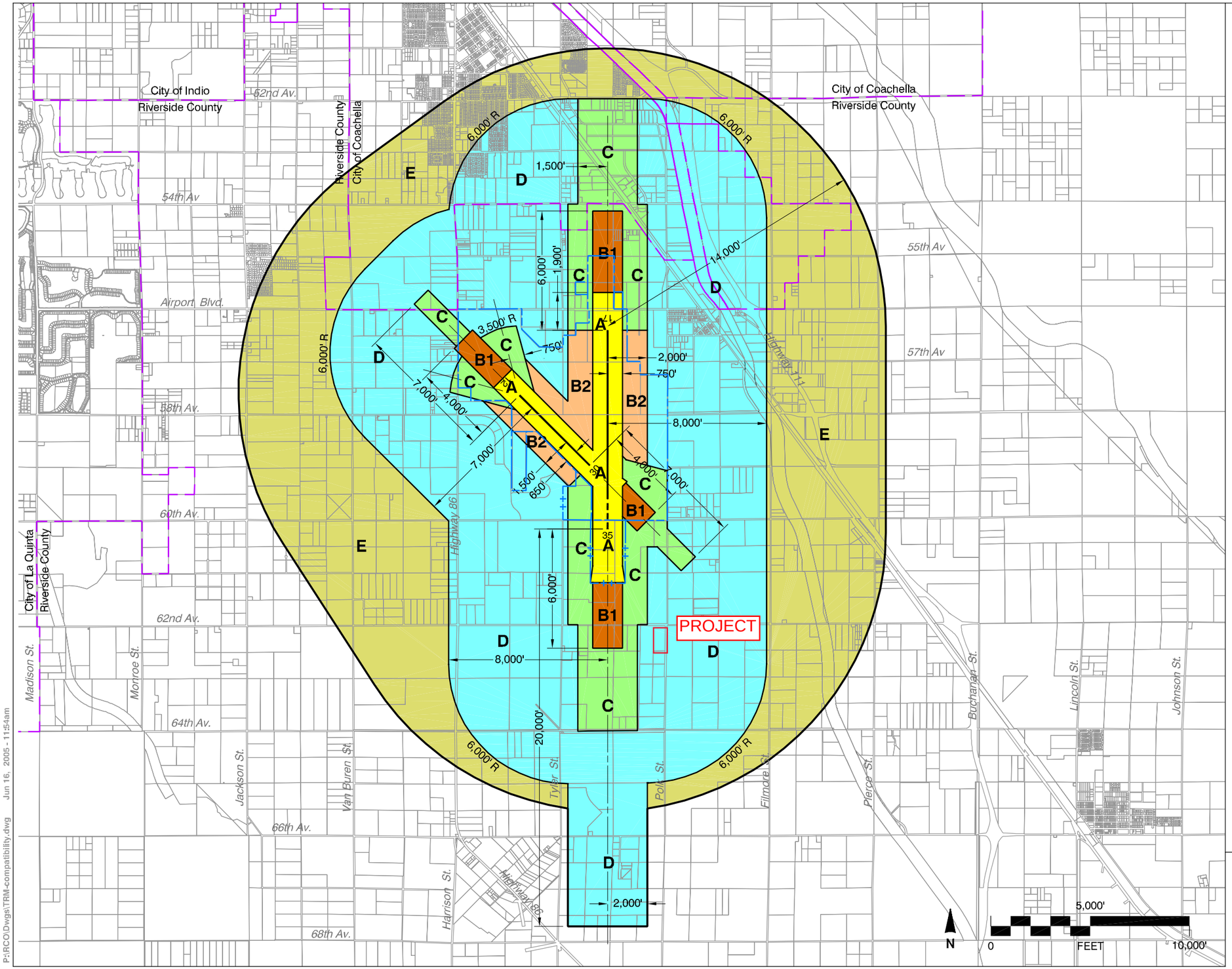
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line - Existing
- Airport Property Line - Planned
- City Limits

Note

Except for southern extension, Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A for compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

(Adopted June 2005)

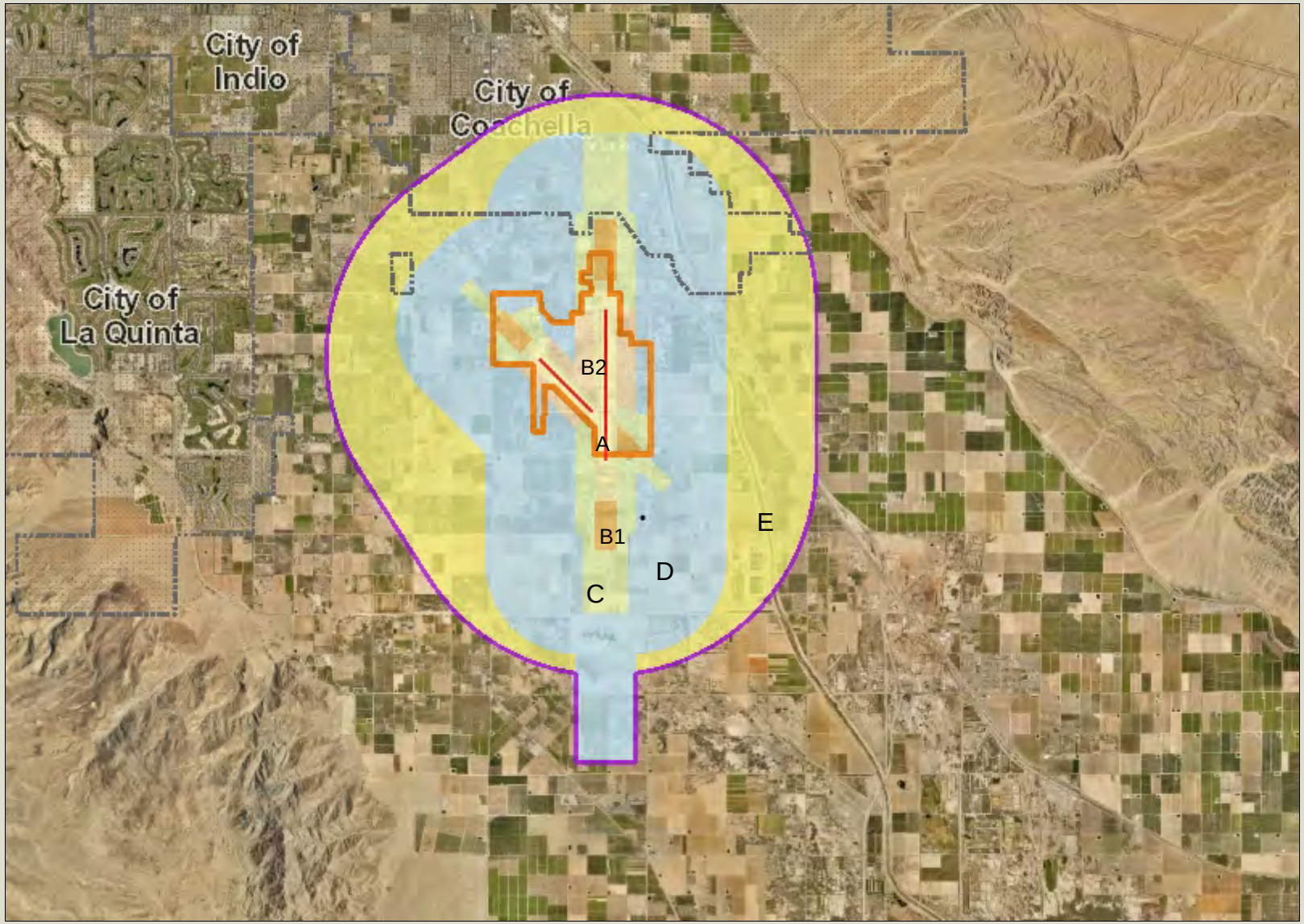
Map JC-1

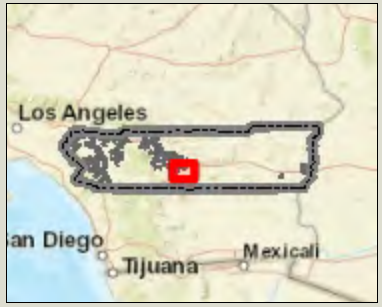
Compatibility Map

Jacquelline Cochran Regional Airport

P:\RCO\Dwgs\TRM-compatibility.dwg Jun 16, 2005 - 11:54am

Map My County Map





Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

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0 12,314 24,629 Feet

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Notes

Map My County Map

Legend

- Parcel APNs
- Parcels
- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3

0 48 96 Feet

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Notes

Map My County Map

Legend

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

0 48 96 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

0 3,079 6,157 Feet

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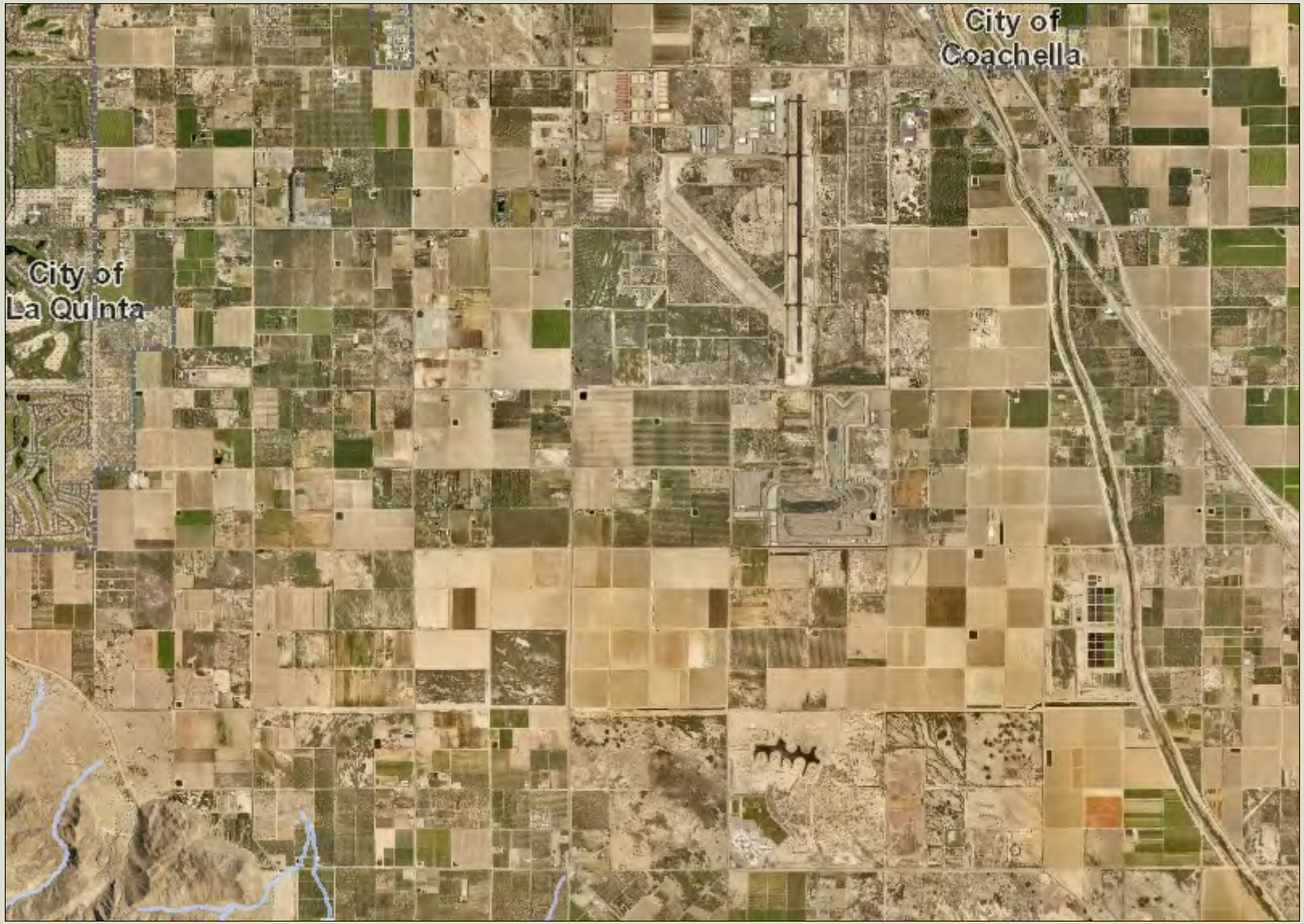
Map My County Map



Legend

- Blueline Streams
- City Areas
- World Street Map

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0 6,157 12,314 Feet

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Notes

Map My County Map

Legend

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

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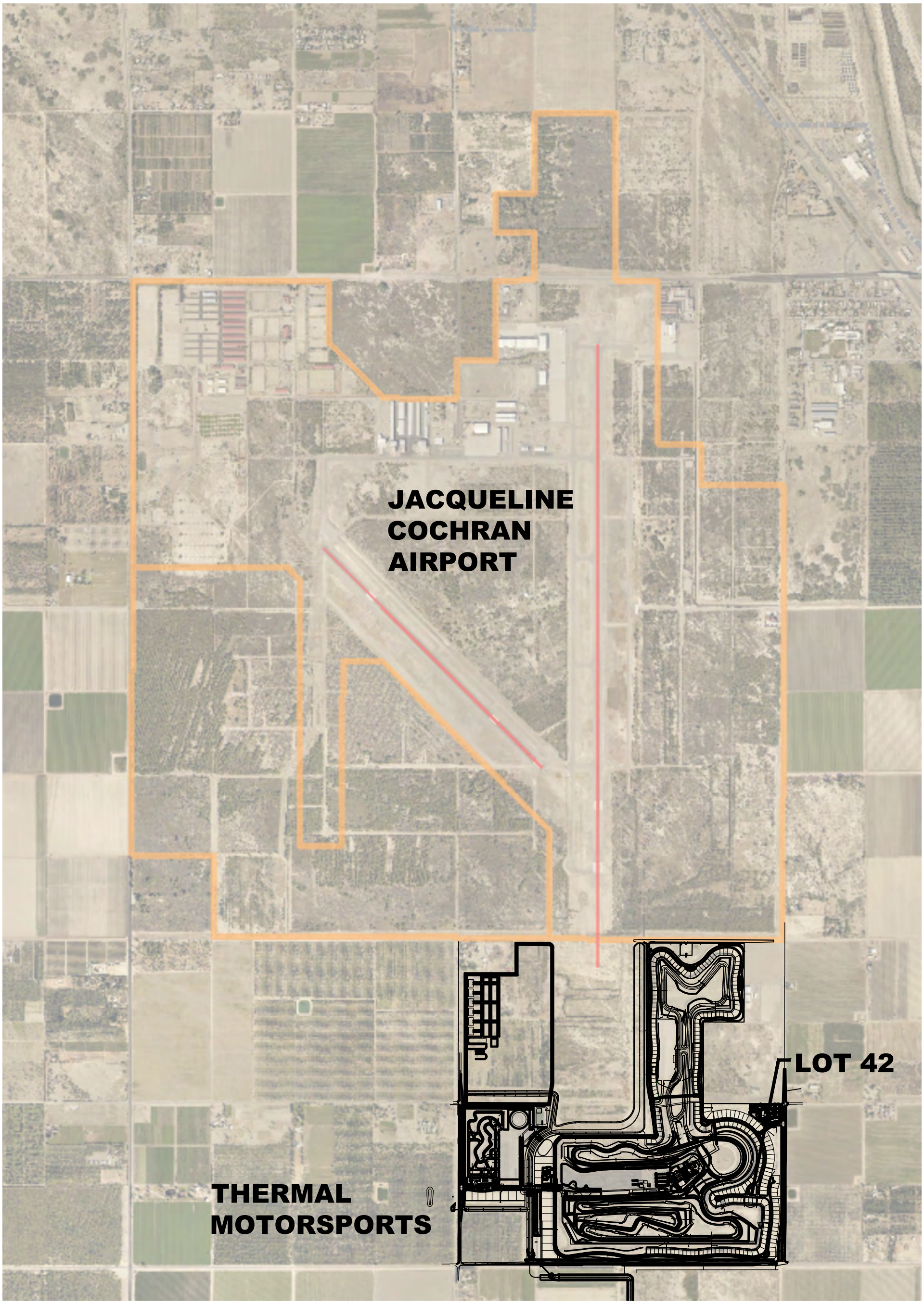


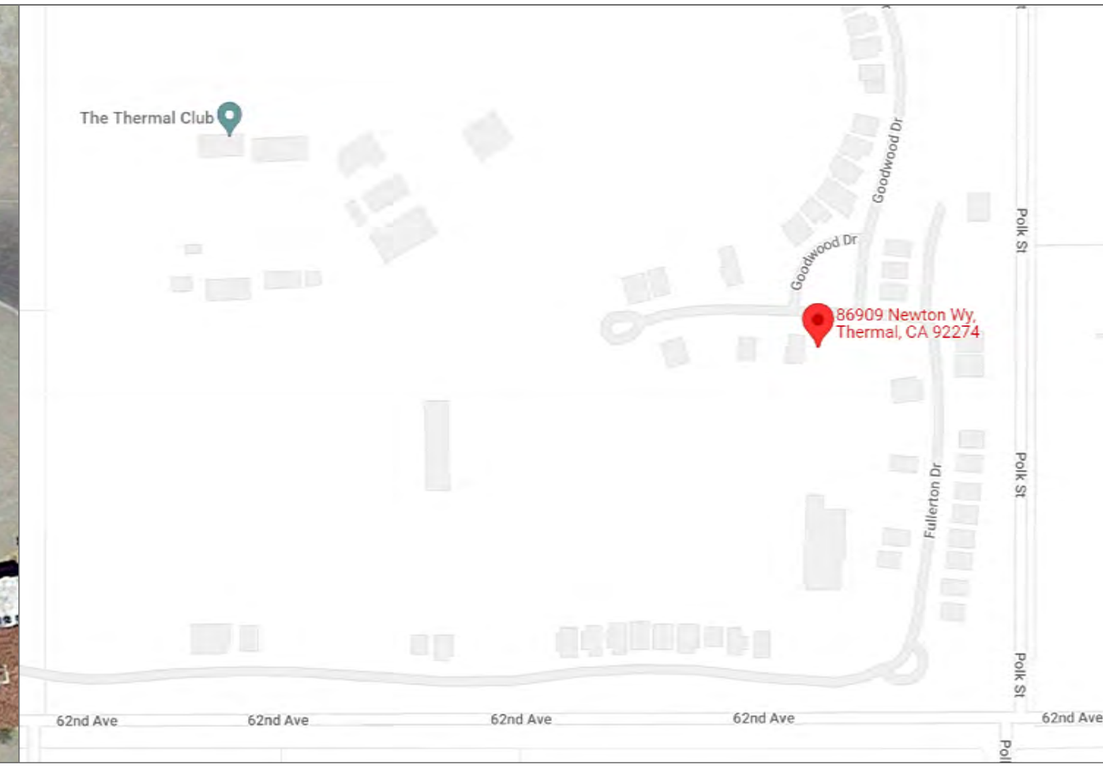
0 750 1500
FEET

PLAN NORTH

N

1 SITE PLAN

SCALE: 1"= 1,500'



Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

GENERAL NOTES:

1. ALL ELECTRICAL WORK TO BE INSTALLED BY A QUALIFIED LICENSED ELECTRICIAN AND APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN.
2. ALL SOLAR MODULES SHALL BE UL LISTED 1703 AND CEC APPROVED. ALL INVERTERS SHALL BE UL LISTED 1741SA CERTIFIED AND CEC APPROVED. ALL ELECTRICAL COMPONENTS AND MATERIALS SHALL BE LISTED AND APPROVED FOR IT'S PURPOSE AND INSTALLED IN A WORKMAN LIKE MANNER. ALL OUTDOOR EQUIPMENT SHALL MEET APPROPRIATE NEMA STANDARDS.
3. THIS SYSTEM IS INTENDED TO BE OPERATED IN PARALLEL WITH THE UTILITY SERVICE PROVIDER. ANTI-ISLANDING PROTECTION IS A REQUIREMENT OF UL1741 AND IS INTENDED TO PREVENT THE OPERATION OF THE PHOTOVOLTAIC SYSTEM WHEN THE UTILITY GRID IS NOT IN OPERATION.
4. PERMISSION TO OPERATE THE SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE LOCAL UTILITY SERVICE PROVIDER.
5. THE METHOD OF MOUNTING SHALL BE DONE IN ACCORDANCE WITH THE RACKING MANUFACTURER TO MEET DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREMENTS. PHOTOVOLTAIC MODULES WILL BE SECURED AND MOUNTED ON THE ROOF AS SPECIFIED ON THE STRUCTURAL SHEETS. EXISTING ROOF EQUIPMENT WILL NOT BE EFFECTED BY THE PHOTOVOLTAIC SYSTEM OR INSTALLATION.
6. ALL FASTENERS SHALL BE CORROSION RESISTANT APPROPRIATE FOR THE SITE CONDITIONS.
7. ALL ROOFING REPAIRS MUST MAINTAIN EXISTING CLASS AND TYPE OF ROOF AND ALL WORK SHALL BE IN ACCORDANCE WITH THE ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
8. TO BE INSTALLED IN SUCH A MANNER THAT IS DISCREET AND DOES NOT DETRACT FROM THE HOMES ARCHITECTURE

DESCRIPTION OF WORK:

ROOF MOUNTED PHOTOVOLTAIC (SOLAR ELECTRIC) INSTALLATION TILT MOUNTED @ 5° FACING AN AZIMUTH OF 183° CONSISTING OF (30) PANASONIC EVPV400H - 400 WATT MODULES (12.0Kw).

RACK MOUNTING SYSTEM IS UNIRAC SOLARMOUNT ALUMINUM SUPPORT RAILS AND FAST JACK SOLAR STANCHIONS.

INSTALLATION SHALL COMPLY WITH THE FOLLOWING CODES:

CEC 2019 - ARTICLE 690, 705,706 AND OTHERS NEC 2020 705.13
CPC 2019
CBC 2019
CMC 2019
CFC 2019

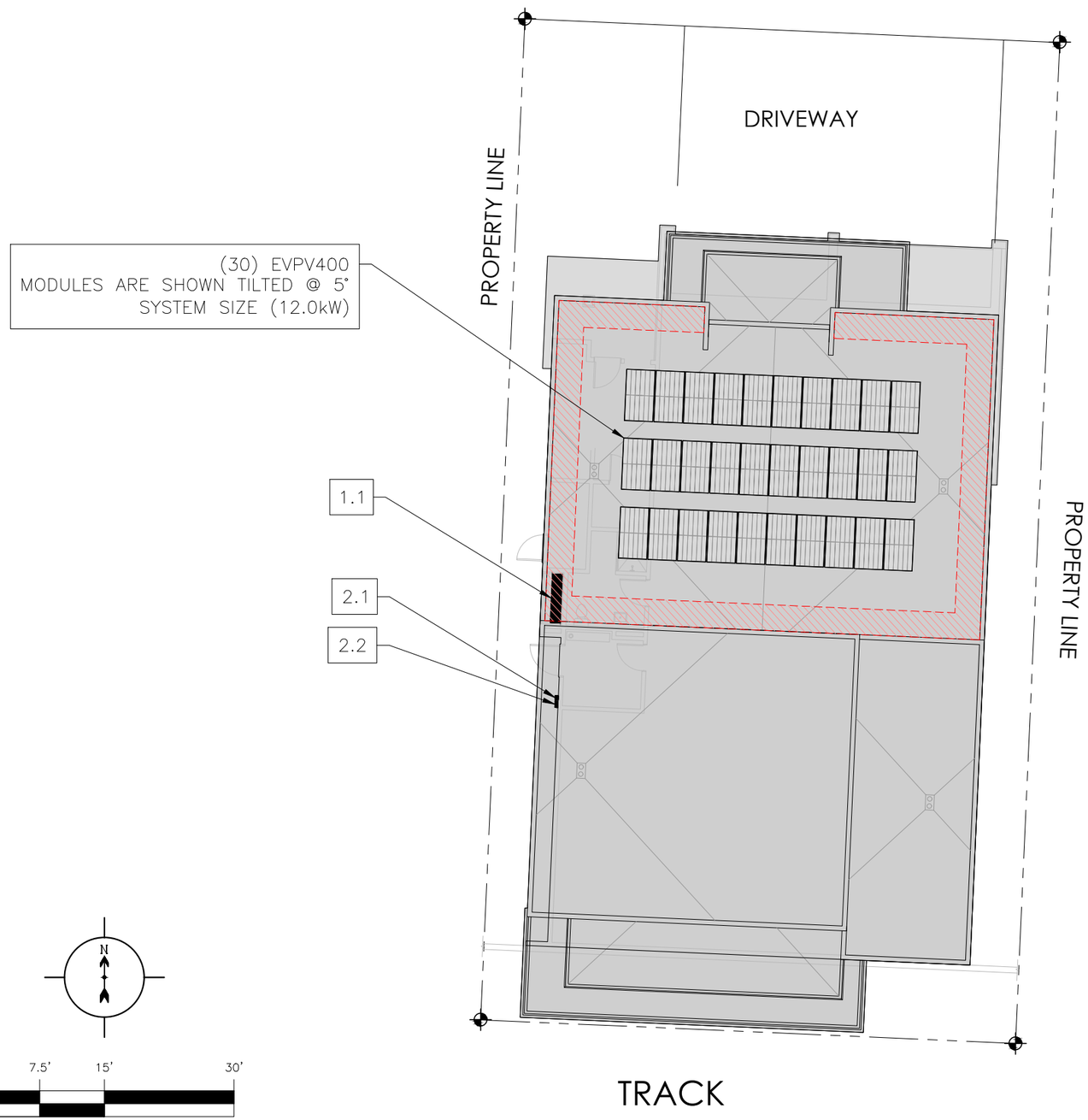
DRAWING SHEETS:

COVER SHEET	PV-0.0
SITE PLAN	PV-1.0
ROOF PLAN	PV-2.0
SINGLE LINE DIAGRAM	PV-3.0
MOUNTING DETAIL	PV-4.0
WARNING LABELING	PV-5.0

SPECIFICATION SHEETS:
EVPV400H MODULE
SE11400H-US INVERTER
UNIRAC CERTIFICATION

Title: Thermal Lot 42
COVER SHEET
86909 Netown Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: NTS
Job Number: 22197
Sheet Number:
PV-0.0
Sheet



SITE PLAN KEYNOTE:

EXISTING ELECTRICAL

1.1 600A MAIN ELECTRICAL PANEL

NEW ELECTRICAL
(ADJACENT TO MSP)

2.1 SYSTEM AC DISCONNECT
2.2 SE11400H-US PV INVERTER

SITE LEGEND

FIRE EASEMENT/ACCESS

EAVE SETBACK/WALL

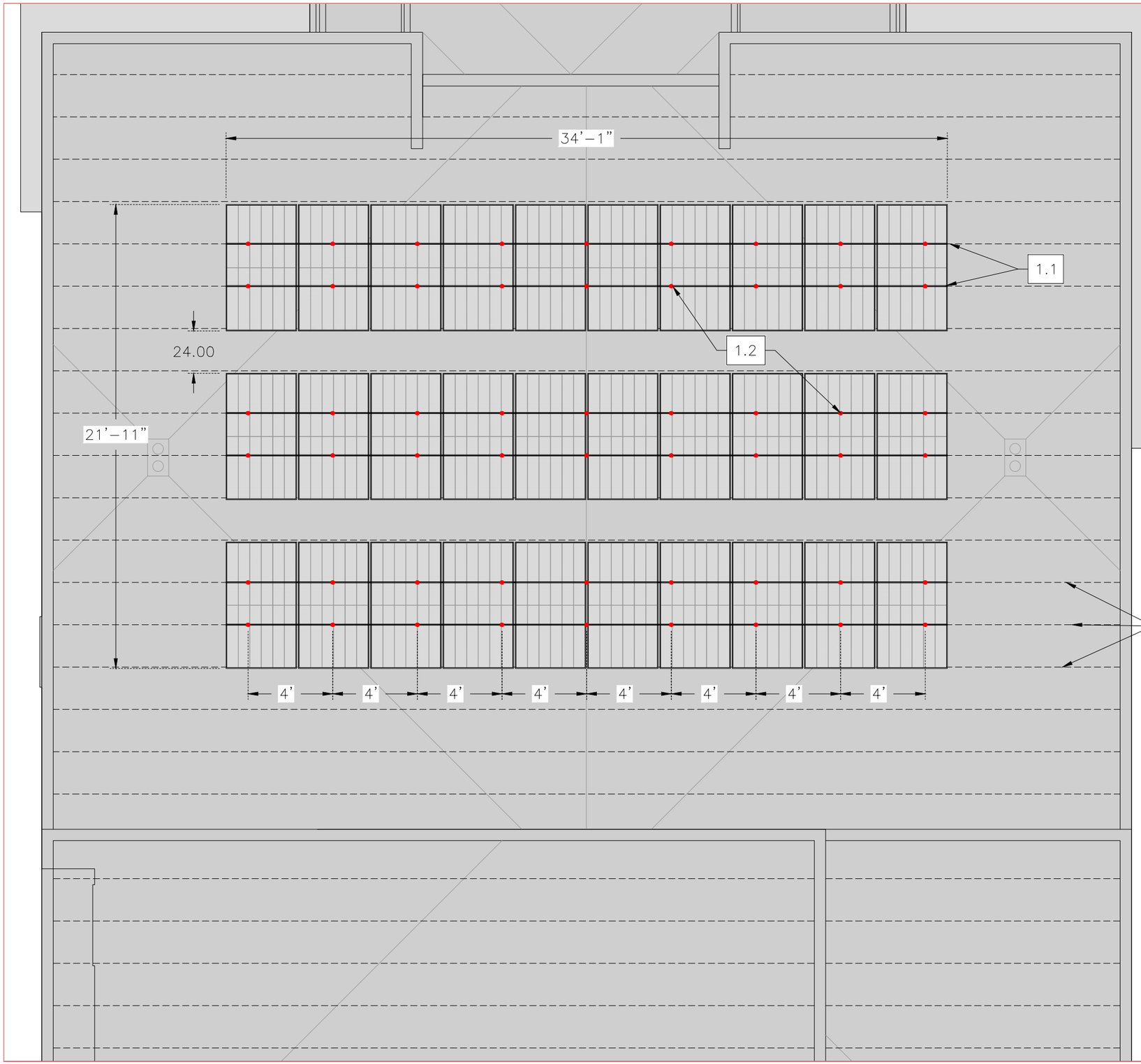
Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 42
SITE PLAN
86909 Netown Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: 1" = 15'
Job Number: 22197
Sheet Number:
PV-1.0
Sheet



NO ROOF VENTS, ATTIC VENTS OR OTHER NECESSARY BUILDING COMPONENTS MAY BE COVERED OR ALTERED BY THE INSTALLATION OF THE NEW PV ARRAY

MOUNT PLAN KEYNOTE:

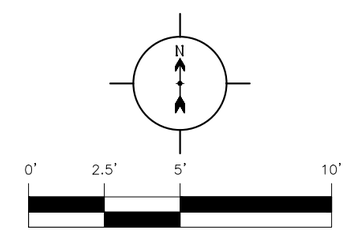
RACK MOUNT COMPONENTS

1.1 UNIRAC ALUMINUM SUPPORT RAIL
1.2 FAST JACK SOLAR STANCHIONS

STRUCTURAL

2.1 ROOF SUPPORTS 16" TJI 210 @ 24" O.C TYP.

1. VERIFY RAFTER SPACING IN THE FIELD BEFORE ATTACHING MOUNTS ROOF.
2. ENSURE THAT MOUNTING LAGS PENETRATE CENTER OF RAFTERS AND MAKE STRUCTURAL CONNECTION TO THE RAFTERS.
3. STRUCTURAL CONNECTION TO ENGINEERED TRUSS SHALL BE MADE BY 3-1/2" X 5/16" STAINLESS STEEL LAG SCREWS 3" MIN. EMBEDMENT.
4. ALL MOUNTS SHALL BE 20" FROM ALL VALLEYS.
5. PHOTOVOLTAIC MODULES SHALL HAVE 1.8 MOUNTS (LAG SCREWS) PER PANEL.
6. (E) ROOF STRUCTURE IS FLAT 16" TJI 210 @ 24" O.C TYP.
7. (E) ROOFING MATERIAL IS 1 LAYER OF TPO OVER 1 LAYER OF 30LB. FELT PAPER AND 1/2" OSB PLYWOOD DECKING.
8. MODULE DIMENSIONS 71.4" x 40.0"



48" SPACING BETWEEN MOUNTS IS TYPICAL - MAX SPAN 6'

Analysis of dead load weight added to roof by installation of solar array

Array #1

Panasonic EVPV400H	45.00	pounds		
No. of solar modules	30			
Total weight of modules	1,350	pounds		
Weight of each Solar Rack set	10	pounds		
No. of rack sets	30.0			
Total weight of rack sets	287	pounds		
Total weight of solar array	1,637	pounds	1.8	mounts per module
Height of each module	5.98	feet	3.6	lags per module with tile hooks
Width of each module	3.33	feet		
Area of one module	19.9	square feet		
Area of entire solar array	597.4	square feet		
Weight of solar array per unit area of roof	2.7	pounds/square foot		
No. of stanchions connected to roof joist rafters	54			
Weight loading per stanchion	30.3	pounds/connection		

Revisions:	Date:
Rev A	10/10/22

Michael Rango *Michael Rango*
760.322.4433 Lic. No. 940550

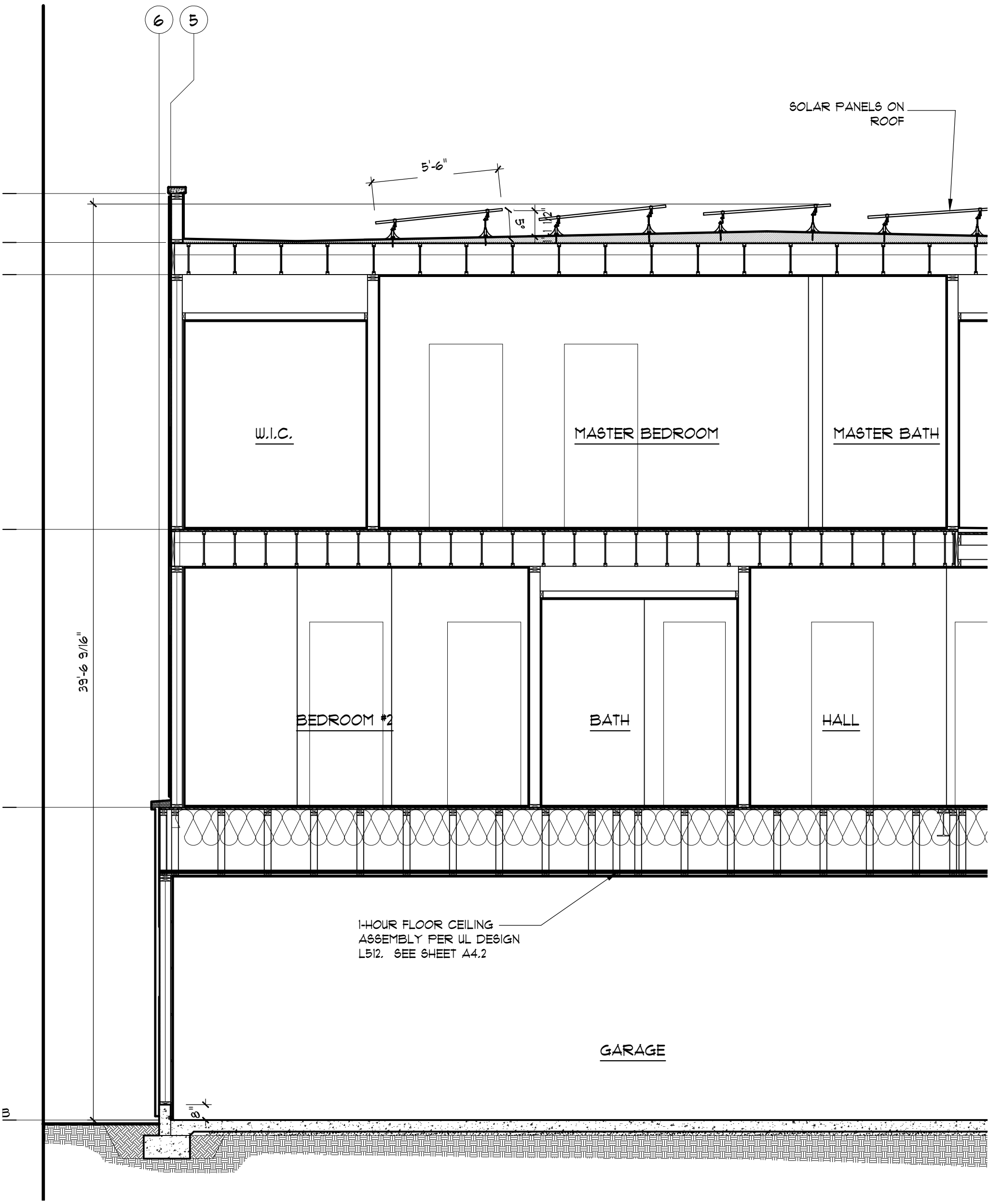
INTEGRATOR:
HPE Hot Purple Energy
810 N. Farrell Drive
Palm Springs, CA 92262
(760) 322 - 4433 office
License No. 940550
info@HotPurpleEnergy.com
www.HotPurpleEnergy.com

Title:
Thermal Lot 42
ROOF PLAN
86909 Netown Way
Thermal, CA 92274

Drawn by: MJR
Checked by: BD
Date: 10/10/22
Scale: 1" = 5'
Job Number: 22197
Sheet Number:

PV-2.0

Sheet



1 PARTIAL BUILDING SECTION

SCALE: 1/4"= 1'-0"

THERMAL MOTORSPORTS - LOT 42

FORGESOLAR GLARE ANALYSIS

Project: **Riverside Co Residential**
Four rooftop PV arrays near KTRM airport, Thermal CA

Site configuration: **4 homes - Lots 15 25 42 93 - 17 Oct 2022**
Analysis conducted by Dave Belote (dave@darestrategies.com) at 16:41 on 17 Oct, 2022.

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: 77735.8001
Methodology: V1

PV Array(s)

Name: 60933 Watkins Glen Dr
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.606283	-116.151325	-147.39	39.71	-107.68
2	33.606285	-116.151252	-147.46	39.71	-107.75
3	33.606385	-116.151257	-147.50	40.21	-107.29
4	33.606382	-116.151331	-147.47	40.21	-107.26

Name: 86756 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 178.0°
Rated power: 12.0 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	33.599010	-116.150892	-150.22	40.21	-110.01
2	33.598945	-116.150890	-150.95	39.71	-111.24
3	33.598948	-116.150791	-150.15	39.71	-110.44
4	33.599014	-116.150792	-148.99	40.21	-108.79

Name: 86876 Rogers Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 181.0°
Rated power: 12.0 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	33.599003	-116.148748	-146.47	40.21	-106.26
2	33.598943	-116.148750	-147.69	39.71	-107.98
3	33.598937	-116.148677	-147.60	39.71	-107.89
4	33.599000	-116.148673	-147.27	40.21	-107.06

Name: 86909 Newton Way
Axis tracking: Fixed (no rotation)
Tilt: 5.0°
Orientation: 183.0°
Rated power: 12.0 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	33.601326	-116.148475	-152.91	40.21	-112.70
2	33.601267	-116.148477	-152.48	39.71	-112.77
3	33.601264	-116.148374	-151.66	39.71	-111.95
4	33.601323	-116.148373	-152.04	40.21	-111.83

Flight Path Receptor(s)

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	33.630183	-116.171005	-117.94	50.00	-67.94
Two-mile	33.650628	-116.195587	-80.78	566.27	485.49

Name: Rwy 17
Description:
Threshold height: 50 ft
Direction: 180.2°
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	33.639142	-116.156425	-115.33	50.00	-65.33
Two-mile	33.668054	-116.156286	-91.22	579.32	488.10

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	33.620459	-116.159390	-132.29	50.00	-82.29
Two-mile	33.600014	-116.134810	-157.22	628.35	471.14

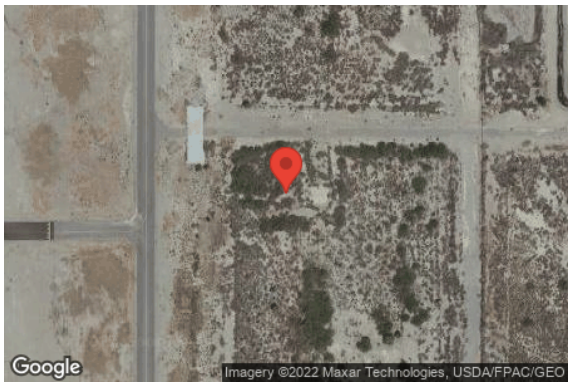
Name: Rwy 35
Description:
Threshold height: 50 ft
Direction: 0.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	33.615802	-116.156431	-139.06	50.00	-89.06
Two-mile	33.586890	-116.156552	-156.00	620.37	464.37

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	33.627040	-116.153590	-129.99	50.00

Map image of 1-ATCT



GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
60933 Watkins Glen Dr	5.0	178.0	930	0	25,910.0
86756 Rogers Way	5.0	178.0	53	0	25,920.0
86876 Rogers Way	5.0	181.0	70	0	25,920.0
86909 Newton Way	5.0	183.0	456	0	25,910.0

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	1509	0
Rwy 35	0	0
1-ATCT	0	0

Results for: 60933 Watkins Glen Dr

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	930	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

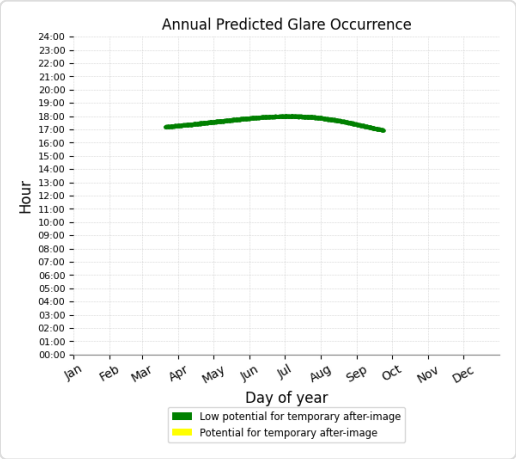
0 minutes of yellow glare
0 minutes of green glare

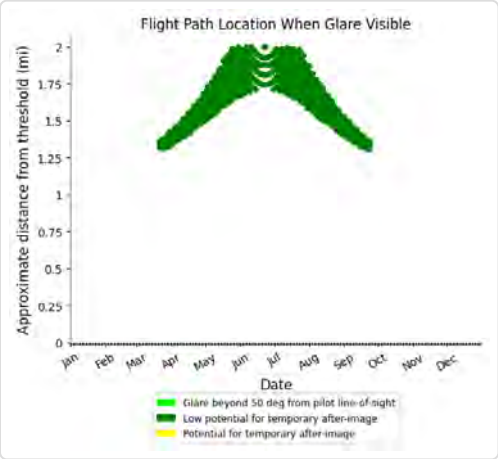
Flight Path: Rwy 17

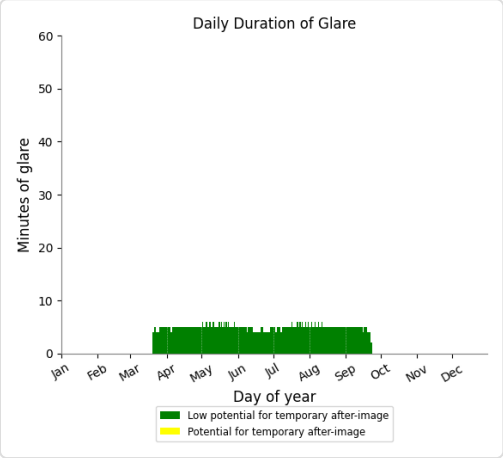
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
930 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86756 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	53	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

0 minutes of yellow glare
0 minutes of green glare

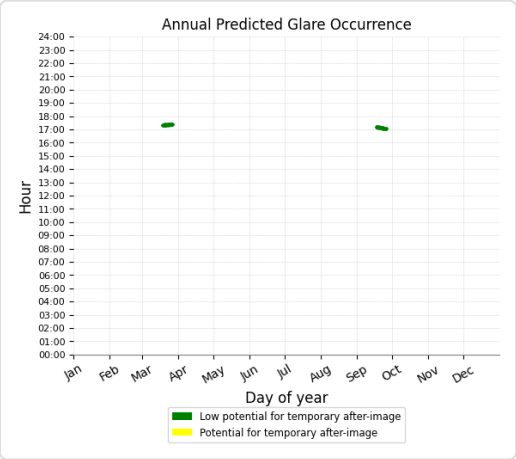
Flight Path: Rwy 17

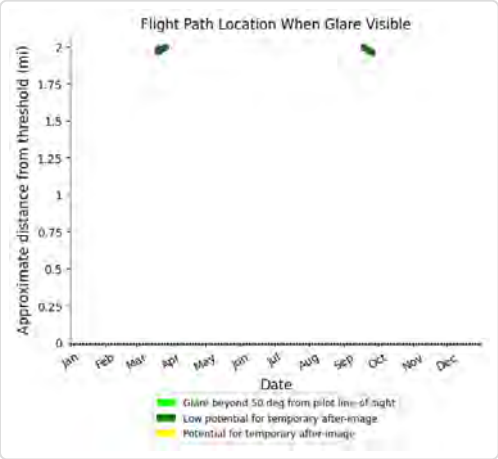
0 minutes of yellow glare
0 minutes of green glare

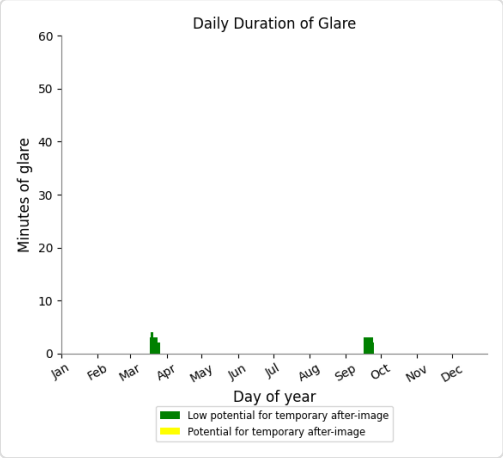
Flight Path: Rwy 30

0 minutes of yellow glare

53 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Results for: 86876 Rogers Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	70	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

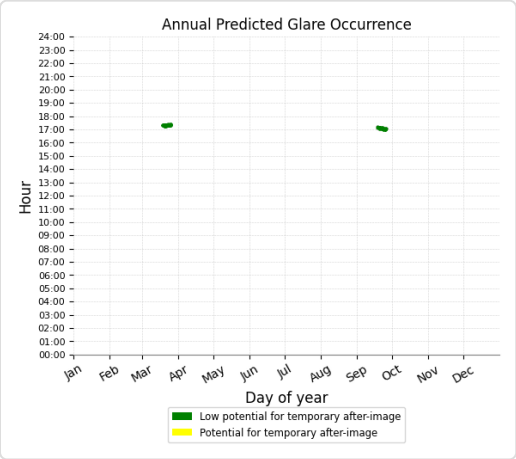
0 minutes of yellow glare
0 minutes of green glare

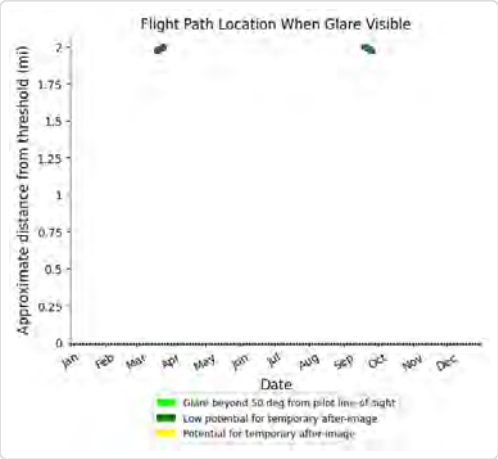
Flight Path: Rwy 17

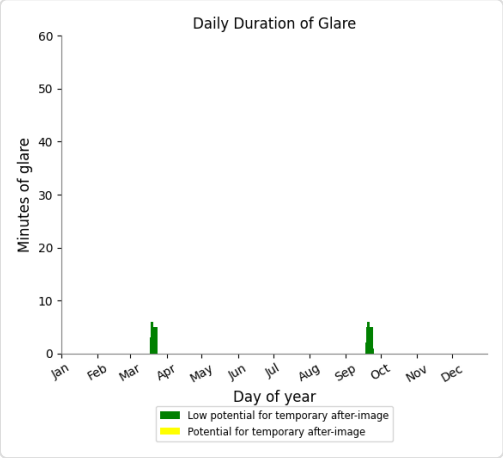
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
70 minutes of green glare







Flight Path: Rwy 35

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Results for: 86909 Newton Way

Receptor	Green Glare (min)	Yellow Glare (min)
Rwy 12	0	0
Rwy 17	0	0
Rwy 30	456	0
Rwy 35	0	0
1-ATCT	0	0

Flight Path: Rwy 12

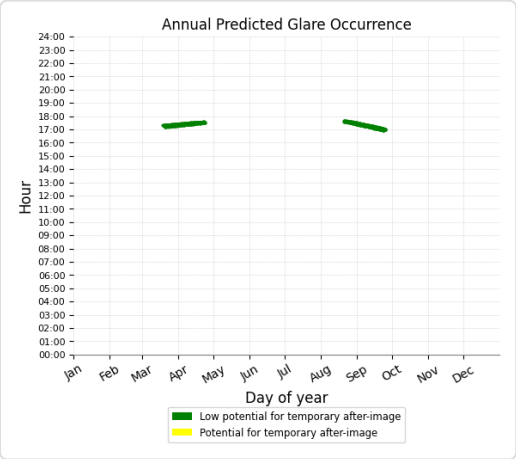
0 minutes of yellow glare
0 minutes of green glare

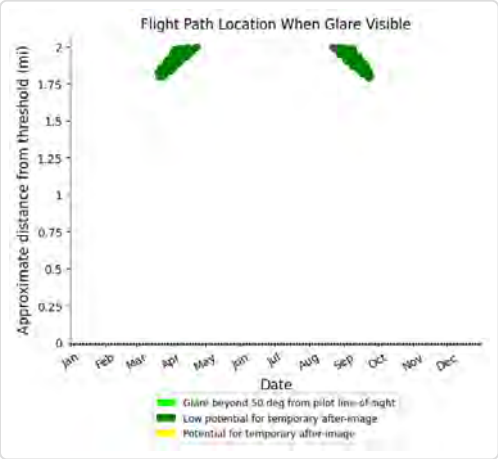
Flight Path: Rwy 17

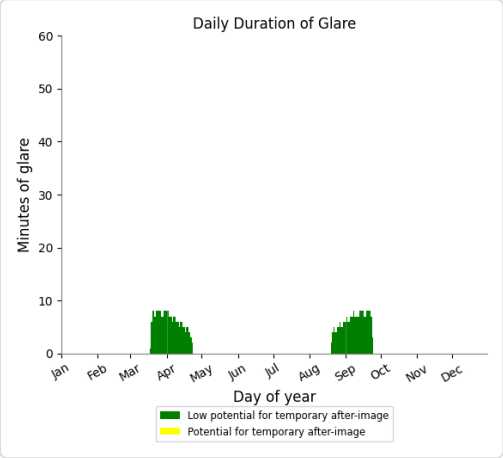
0 minutes of yellow glare
0 minutes of green glare

Flight Path: Rwy 30

0 minutes of yellow glare
456 minutes of green glare







Flight Path: Rwy 35

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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RIVERSIDE COUNTY
AIRPORT LAND USE COMMISSION

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County Administrative Center
4080 Lemon St.,14th Floor.
Riverside, CA 92501
(951) 955-5132

www.rcaluc.org

October 21, 2022

Mr. Russell Brady, Project Planner
Riverside County Planning Division
4080 Lemon Street, 12th Floor
Riverside CA 92501

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW – DIRECTOR'S DETERMINATION

File No.:	ZAP1123FV22
Related File No.:	PP26344R01 (Plot Plan Amendment), CUP220031 (Conditional Use Permit)
APN:	480-170-019
Airport Zone:	Zone C

Dear Mr. Brady:

As authorized by the Riverside County Airport Land Use Commission (ALUC) pursuant to its Resolution No. 2020-02, as ALUC Director, I have reviewed County of Riverside Case Nos. PP26344R01 (Plot Plan Amendment), CUP220031 (Conditional Use Permit), a proposal to replace the approved site design for Buildings 6 and 7 from 12,600 square feet in total area within the French Valley Market Place to a 3,359 square foot car wash building/tunnel, on Parcel 10 (3.00 acres) as part of the overall 132,568 square foot retail commercial center on 21.16 acres which was previously found consistent under ZAP1087FV19, located on the northeast corner of Thompson Road and Highway 79 Winchester Road.

The proposal to replace Buildings 6 and 7 with a 3,359 square foot car wash building/tunnel would accommodate a new occupancy of 17 people, and in conjunction with Building 5 (which was recently amended under ZAP1103FV20) occupancy of 57 people would accommodate a total occupancy (for Parcel 10) of 74 people, resulting in an average intensity of 25 people per acre, and the proposed single acre intensity would be the entire car wash building accommodating 17 people, which is consistent with Zone C average acre intensity criterion of 80 people per acre, and maximum single acre intensity of 160 people.

As ALUC Director, I hereby find the above-referenced project **CONSISTENT** with the 2007 French Valley Airport Land Use Compatibility Plan, as amended in 2011, provided that the County of Riverside applies the following recommended conditions:

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 review of this Plot Plan is based on the proposed uses and activities noted in the project description. 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 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, skilled nursing and care facilities, critical community infrastructure facilities, highly noise sensitive outdoor nonresidential uses, and hazards to flight.

(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. The attached notice shall be provided to all prospective purchasers of the proposed parcels and tenants or lessees of the buildings, and shall 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 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 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.

5. 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.

6. This project has been evaluated as consisting of a 3,359 square foot car wash building/tunnel. 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. The maximum height of the building, including all roof-mounted equipment, if any, shall be limited to 43 feet, and the maximum top point elevation shall not exceed 1,408 feet above mean sea level unless a "Determination of No Hazard to Air Navigation" letter authorizing a higher top point elevation has been issued by the Federal Aviation Administration Obstruction Evaluation Service.

If you have any questions, please contact me at (951) 955-6893.

Sincerely,
RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Paul Rull

Paul Rull, ALUC Director

Attachments: Notice of Airport in Vicinity

cc: French Valley Marketplace c/o Halferty Development Co. LLC (applicant/representative/ property owner)
Angela Jamison, County Airports Manager
ALUC Case File

X:\AIRPORT CASE FILES\French Valley\ZAP1123FV22\ZAP1123FV22.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)(13)(A)

NOTICE

THERE IS AN AIRPORT NEARBY.

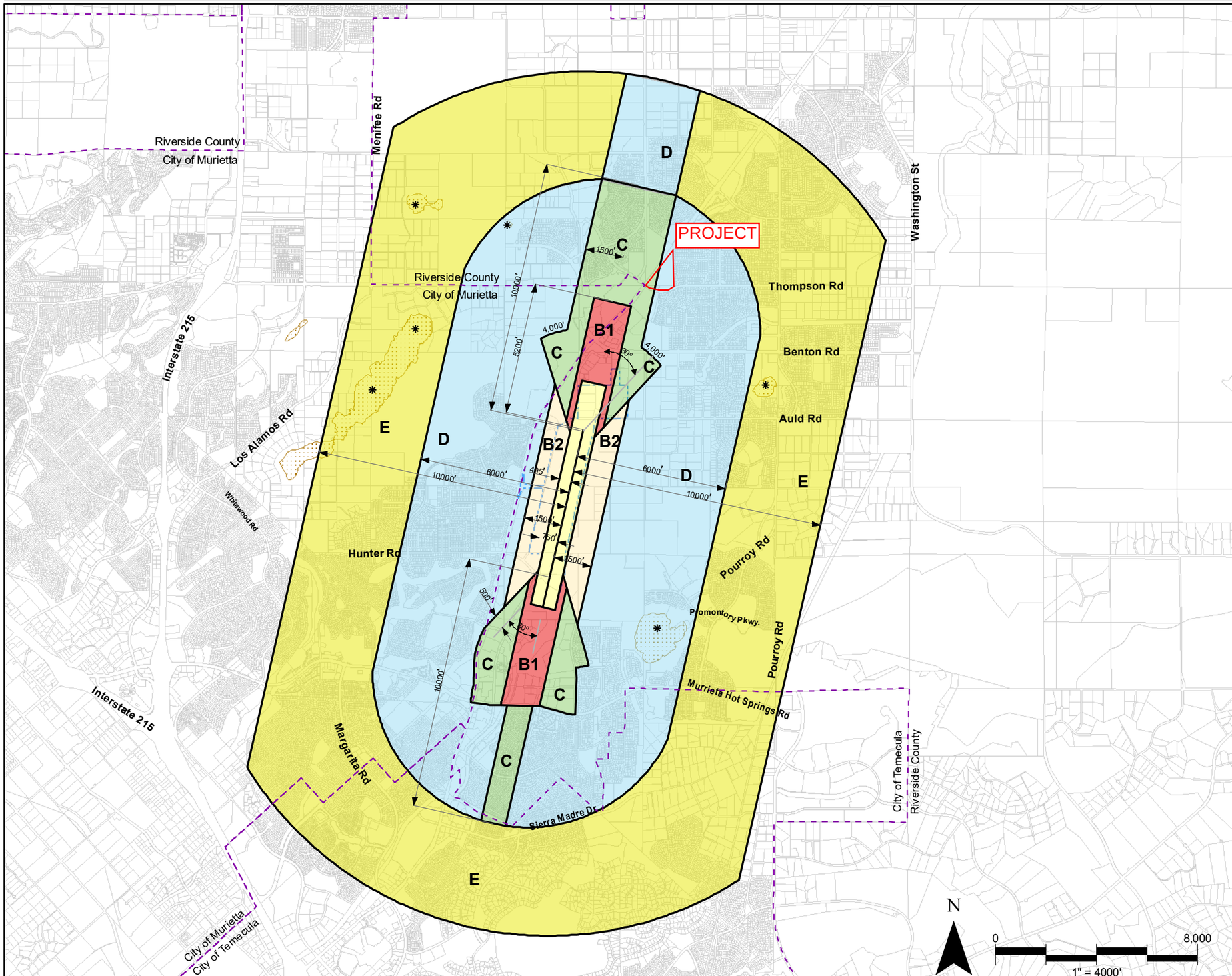
THIS STORM WATER BASIN IS DESIGNED TO HOLD STORM WATER FOR ONLY 48 HOURS AND NOT TO ATTRACT BIRDS

PROPER MAINTENANCE IS NECESSARY TO AVOID BIRD STRIKES

RIVERSIDE COUNTY
ALUC
AIRPORT LAND USE COMMISSION

IF THIS BASIN IS OVERGROWN, PLEASE CONTACT:

Name: _____ **Phone:** _____



Legend

Compatability Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

Boundary Lines

- Airport Property Line
- City Limits
- Height Review Overlay Zone

Note

Airport Influence Area boundary measured from a point 200 feet beyond runway ends in accordance with FAA airspace protection criteria (FAR Part 77). All other dimensions measured from runway ends and centerlines.

See Chapter 2, Table 2A from compatibility criteria associated with this map.

Riverside County
Airport Land Use Commission

Riverside County
Airport Land Use Compatibility Plan
Policy Document

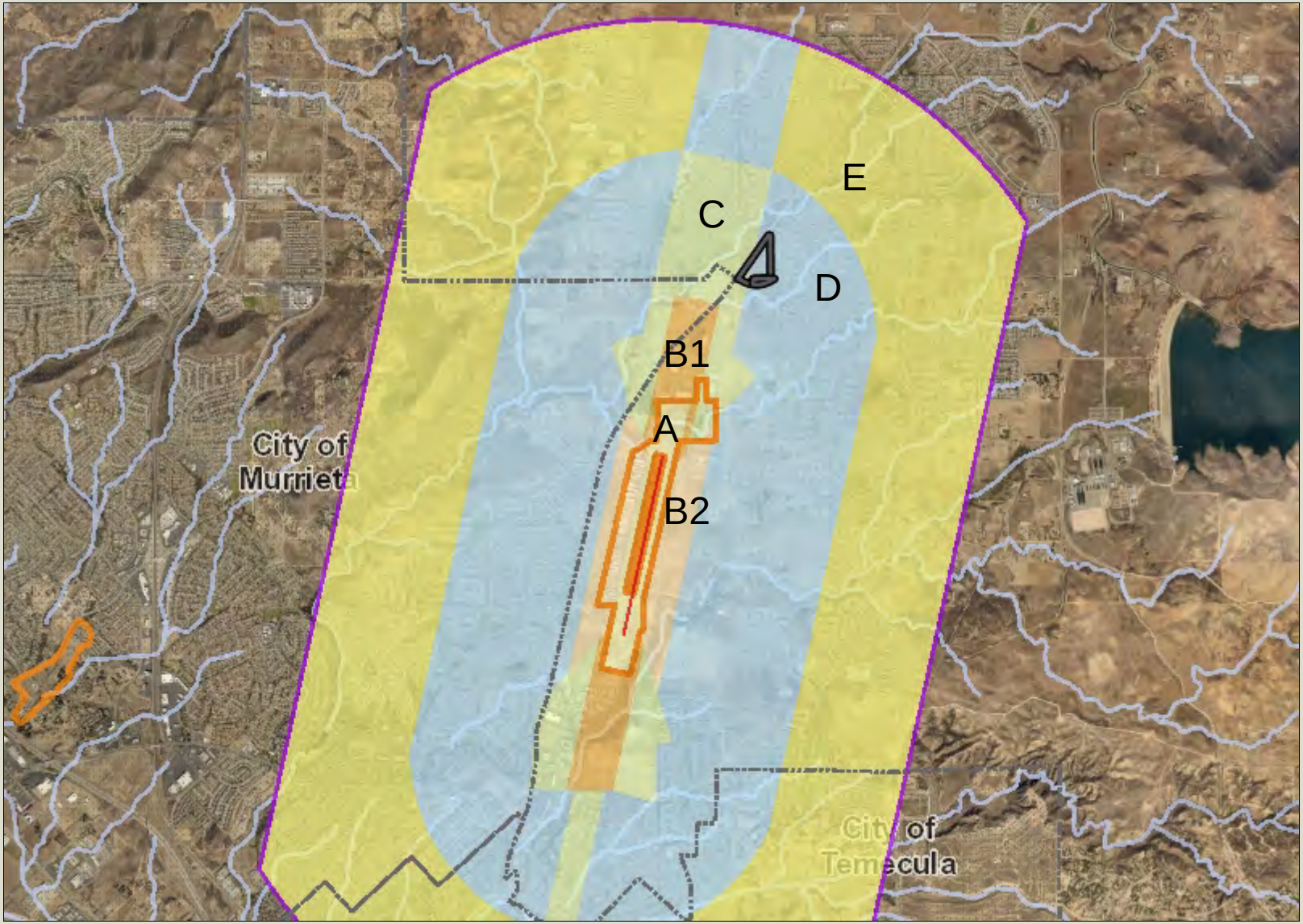
(April 2010)

Map FV-1

Compatibility Map

French Valley Airport

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 6,064 12,127 Feet

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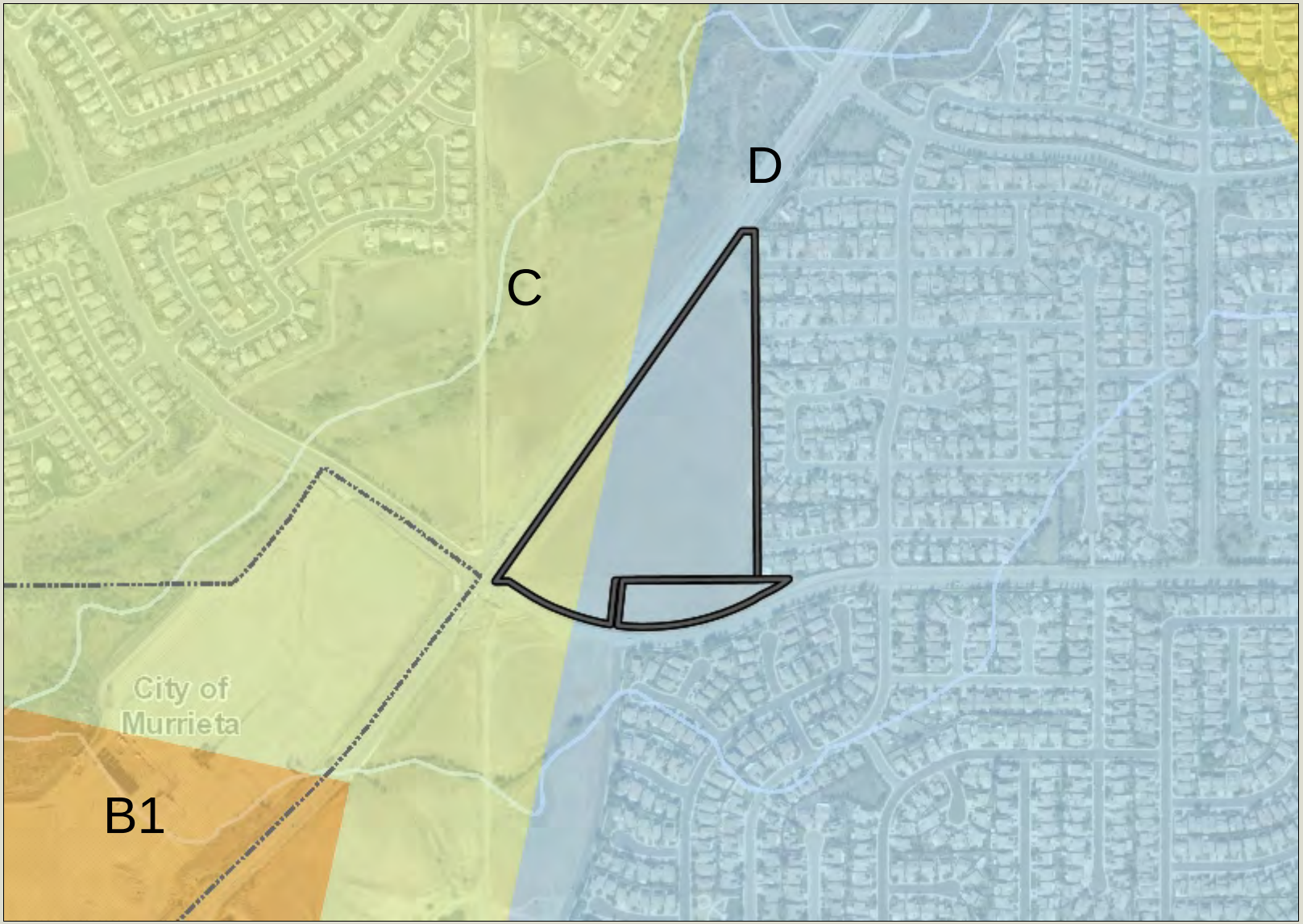
Notes

Map My County Map



Legend

- Runways
- Airports
- Airport Influence Areas
- Airport Compatibility Zones
  - OTHER COMPATIBILITY ZONE
  - A
  - A-EXC1
  - B1
  - B1-APZ I
  - B1-APZ I-EXC1
  - B1-APZ II
  - B1-APZ II-EXC1
  - B1-EXC1
  - B2
  - B2-EXC1
  - C
  - C1
  - C1-EXC1
  - C1-EXC3
  - C1-EXC4
  - C1-HIGHT
  - C2
  - C2-EXC1
  - C2-EXC2
  - C2-EXC3
  - C2-EXC5
  - C2-EXC6

0 758 1,516 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 758 1,516 Feet

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Notes

Map My County Map

Legend

City Areas

World Street Map

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0 12,127 24,254 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 3,032 6,064 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 1,516 3,032 Feet

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Notes

Map My County Map

Legend

- Blueline Streams
- City Areas
- World Street Map

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0 758 1,516 Feet

REPORT PRINTED ON... 2/19/2019 7:43:36 AM

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Notes

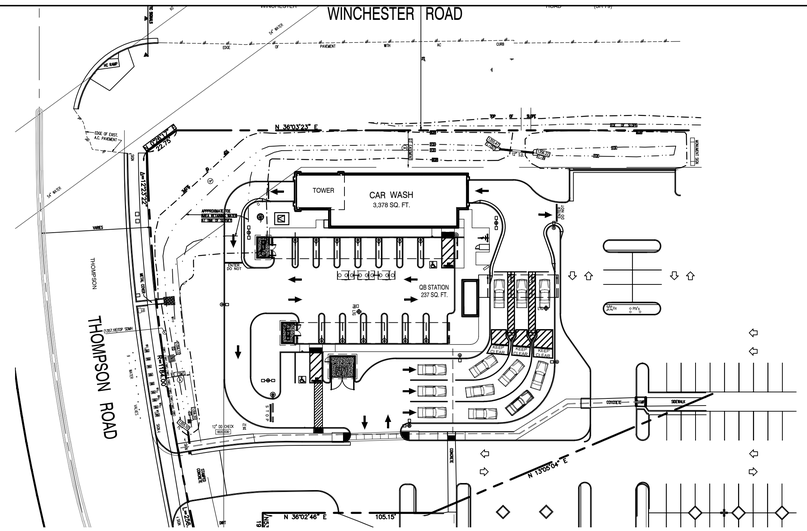
LEGAL DESCRIPTION

THIS ALTA SURVEY COVERS A PORTION OF THE FOLLOWING DESCRIBED LAND:
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN AN UNINCORPORATED AREA IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 2, AS SHOWN ON LOT LINE ADJUSTMENT NO. 05581, AS EVIDENCED BY DOCUMENT RECORDED MAY 09, 2017 AS INSTRUMENT NO. 2017-0185614 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
REAL PROPERTY IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, BEING A PORTION OF PORTION OF PARCEL 1 OF A PARCEL MAP RECORDED MAY 15, 1973, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, IN BOOK 8, PAGE 53, RIVERSIDE COUNTY RECORDS AND BEING A PORTION OF PARCEL 2 AS SHOWN ON LOT LINE ADJUSTMENT NO. 5244, AS EVIDENCED BY DOCUMENT RECORDED AUGUST 20, 2008 AS INSTRUMENT NO. 2008-0460215 OF OFFICIAL RECORDS, RIVERSIDE COUNTY RECORDS.
TOGETHER WITH THAT PORTION OF THOMPSON ROAD VACATED BY RESOLUTION NO. 93-168 RECORDED JANUARY 30, 2006 AS INSTRUMENT NO. 2006-0069780 OFFICIAL RECORDS OF SAID COUNTY, WHICH WOULD PASS BY OPERATION OF LAW WITH THE CONVEYANCE OF SAID LAND, COLLECTIVELY, DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHEASTERLY CORNER OF SAID PARCEL 1;
THENCE NORTH 00° 27' 52" WEST, A DISTANCE OF 1,418.34';
THENCE SOUTH 89° 31' 27" WEST, A DISTANCE OF 30.36' TO A POINT ON THE SOUTHEASTERLY RIGHT OF WAY LINE OF WINCHESTER ROAD, 110' WIDE PER SAID PARCEL MAP;
THENCE ALONG SAID LINE SOUTH 35° 34' 50" WEST, A DISTANCE OF 1,653.58';
THENCE SOUTH 26°29'25" WEST, A DISTANCE OF 75.95';
THENCE SOUTH 24°56'57" EAST, A DISTANCE OF 2.70';
THENCE SOUTH 54°25'10" EAST, A DISTANCE OF 30.63' TO BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 950';
THENCE NORTH 06° 54' 50" EAST, A DISTANCE OF 182.26' ALONG SAID CENTERLINE TO A POINT ON THE SOUTHERLY LINE OF SAID PARCEL 1;
THENCE ALONG SAID SOUTHERLY LINE NORTH 89° 31' 27" EAST, A DISTANCE OF 551.51' TO THE POINT OF BEGINNING.
EXCEPTING THEREFROM A PORTION PUBLIC ROAD EASEMENT CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORD SEPTEMBER 27, 1993 AS INSTRUMENT NO. 375417, OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH PARCEL 4 OF THAT CERTAIN LOT LINE ADJUSTMENT NO. 3794, RECORD OCTOBER 31, 1995 AS INSTRUMENT NO. 95-363645 OF OFFICIAL RECORDS OF RIVERSIDE, CALIFORNIA, DESCRIBED AS FOLLOWS:
THAT PORTION OF PARCEL 3 OF PARCEL MAP NO. 20445, AS SHOWN BY MAP ON FILE IN BOOK 132, PAGES 93 AND 94 THEREOF, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE INTERSECTION OF THE CENTERLINE OF WINCHESTER ROAD AND THOMPSON ROAD AS SHOWN BY MAP OF TRACT NO. 21854 ON FILE IN BOOK 246, PAGES 1 THROUGH 10 INCLUSIVE THEREOF OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;
THENCE SOUTH 54°25'10" EAST ALONG SAID SOUTHEASTERLY RIGHT OF WAY LINE, A DISTANCE OF 25.48 FEET TO A POINT IN THE NORTH LINE OF SECTION 5, TOWNSHIP 7 SOUTH, RANGE 2 WEST, SAN BERNARDINO MERIDIAN;
THENCE NORTH 89°31'27" EAST ALONG SAID NORTH LINE, A DISTANCE OF 511.20' FOR THE TRUE POINT OF BEGINNING SAID POINT BEING THE CENTERLINE OF AN EASEMENT FOR PUBLIC ROAD AND DRAINAGE PURPOSES CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED SEPTEMBER 27, 1993 AS INSTRUMENT OF 375417, OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;
THENCE SOUTH 06°54'50" WEST ALONG SAID CENTERLINE, A DISTANCE OF 182.26' TO A POINT IN THE RIGHT OF WAY OF THOMPSON ROAD CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED SEPTEMBER 27, 1993 AS INSTRUMENT NO. 375419 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA SAID POINT BEING IN A NON-TANGENT CURVE, CONCAVE TO THE NORTH, HAVING A RADIUS OF 950.00 FEET;
THENCE EASTERLY ALONG SAID RIGHT OF WAY AND ALONG SAID CURVE, TO THE LEFT, THROUGH A CENTRAL ANGLE OF 35°39'54", AN ARC DISTANCE OF 591.16 FEET, TO A POINT OF REVERSE CURVATURE WITH A CURVE, CONCAVE SOUTHERLY, HAVING A RADIUS OF 1050.00', THE RADIAL LINE TO SAID POINT BEARS NORTH 28°45'05" WEST;
THENCE EASTERLY ALONG SAID CURVE, TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 10°31'06", AN ARC DISTANCE OF 192.76' TO A POINT OF TANGENCY WITH THE SOUTH LINE OF LOT A (THOMPSON ROAD) OF SAID TRACT NO. 21854;
THENCE SOUTH 89°31'27" WEST ALONG SAID NORTH LINE OF SAID SECTION 5, A DISTANCE OF 725.83' TO THE TRUE POINT OF BEGINNING.
TOGETHER WITH THAT PORTION OF THOMPSON ROAD VACATED BY RESOLUTION NO. 93-168 RECORDED JANUARY 30, 2006 AS INSTRUMENT NO. 2006-0069780 OF OFFICIAL RECORDS OF SAID COUNTY, WHICH WOULD PASS BY OPERATION OF LAW WITH THE CONVEYANCE OF SAID LAND.
ALSO EXCEPTING THEREFORM THAT PORTION THEREOF CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED SEPTEMBER 27, 1993 AS INSTRUMENT NO. 375419 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
THIS LEGAL DESCRIPTION IS PURSUANT TO CERTIFICATE OF PARCEL MERGER NO. 190017 RECORDED FEBRUARY 04, 2020 AS INSTRUMENT NO. 2020-0052861 OF OFFICIAL RECORDS.

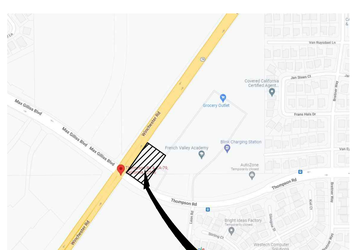
Quick Quack CAR WASH

STORE 44-264
THOMPSON AND WINCHESTER ROAD
FRENCH VALLEY, CA



SITE PLAN | SCALE N.T.S. | 1

VICINITY MAP



VICINITY MAP
N.T.S.

PROJECT LOCATION

PROJECT SUMMARY

PROPERTY ADDRESS:	THOMPSON AND WINCHESTER ROAD FRENCH VALLEY, CA
APN:	480-170-019
ZONING	SP - SPECIFIC PLAN
GENERAL PLAN:	COMMERCIAL GENERAL
NET LAND AREA:	±1.37 AC 59,677 SF
EXISTING LAND USE:	VACANT LOT
PROPOSED LAND USE:	COMMERCIAL - CAR WASH FACILITY

CODES AND REGULATIONS

THESE PLANS SHALL COMPLY WITH THE 2019 CALIFORNIA BUILDING CODE AND ALL APPLICABLE COUNTY AND NATIONAL CITY CODES AND ORDINANCES.

2019 CALIFORNIA ADMINISTRATIVE CODE, (PART 1);

2019 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 AND 2 (TITLE 24, PART 2);

2019 CALIFORNIA ELECTRICAL CODE (CEC), (TITLE 24, PART 3);

2019 CALIFORNIA MECHANICAL CODE (CMC), (TITLE 24, PART 4);

2019 CALIFORNIA PLUMBING CODE (CPC), (TITLE 24, PART 5);

2019 CALIFORNIA ENERGY CODE, (TITLE 24, PART 6);

2019 CALIFORNIA FIRE CODE, (TITLE 24, PART 9);

2019 CALIFORNIA GREEN BUILDING CODE, (TITLE 24, PART 11)

SCOPE OF WORK

NEW CAR WASH FACILITY, INCLUDING BUT NOT LIMITED TO NEW CONCRETE WALKS, DRIVE AISLES, CURBS, LANDSCAPING, VACUUM STATIONS, UTILITIES AND ALL ASSOCIATED FIXTURES,FURNISHINGS AND EQUIPMENT.

DIRECTORY

OWNER & APPLICANT: HALFERTY DEVELOPMENT COMPANY
199 SOUTH LOS ROBLES AVE., STE. 840
PASADENA, CA 91101
CONTACT: JIM HALFERTY

TENANT: **QUICK QUACK CAR WASH**
1380 LEAD HILLS BLVD., SUITE 260
ROSEVILLE, CA 95661
CONTACT: DOUG LIVINGSTON
DLivingston@dontdrivedirty.com

ARCHITECT: **LADG | LA DESIGN GROUP, INC.**
21671 GATEWAY CENTER DRIVE, SUITE 213
DIAMOND BAR, CA 91765
Phone: (909) 860-1010
CONTACT: SAEID SHANTIYAI
SShantiyai@ladesigngroup.net

CIVIL ENGINEER: **KIMLEY-HORN & ASSOCIATES, INC.**
3880 LEMON STREET, SUITE 420
RIVERSIDE, CA 92501
Phone: (951) 335-8272
CONTACT: SHEA-MICHAEL ANTI
Shea.Anti@kimley-horn.com

LANDSCAPE: **OLIVE STREET**
P.O. BOX 2083
PETALUMA, CA 94952
Phone: (707) 280-8990
CONTACT: ROD SCACCALOSI
Rod@olivestreetlandscape.com

SHEET INDEX

SHEET LIST	DESCRIPTION
G 0.01	COVER SHEET
C 1.1	CIVIL COVER SHEET
C 2.1	SITE PLAN
C 3.1	GRADING PLAN
C 4.1	UTILITY PLAN
1	ALTA SURVEY (FOR REFERENCE ONLY)
2	ALTA SURVEY (FOR REFERENCE ONLY)
AS 1.01	SITE PLAN
L1	LANDSCAPE PLAN
L2	LANDSCAPE PLAN - RENDERED
LP	PROPOSED LIGHTING AND PHOTOMETRICS
A 2.01	FLOOR PLAN
A 2.02	ROOF PLAN
A 3.01	SOUTH AND EAST ELEVATIONS
A 3.02	NORTH AND WEST ELEVATIONS
A 3.03	QUARTERBACK STATION ELEVATIONS
A 3.04	SOUTH AND EAST COLORED ELEVATIONS
A 3.05	NORTH AND WEST COLORED ELEVATIONS
A 3.06	QUARTERBACK STATION COLORED ELEVATIONS
A 3.07	PERSPECTIVES
AS 1.06	CANOPY NORTH
AS 1.07	CANOPY SOUTH
AS 1.08	SITE ELEMENTS
MB	FINISH AND MATERIAL BOARD
SP	SIGN PACAKGE

LA Design Group, Inc.
21671 GATEWAY CENTER DRIVE, STE. 213
DIAMOND BAR, CA 91765
(T) 909.860.1010

Seal:

LICENSED ARCHITECT
FARIBAL SHORAVI SHANTIYAI
C 25558
EXP. 03/31/23
STATE OF CALIFORNIA

NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency comments/ approvals. No warranties or guaranties of any kind are given or implied by the Architect.

A Project for:

Quick Quack CAR WASH
(STORE 44-264)
THOMPSON AND WINCHESTER ROAD
FRENCH VALLEY, CA

Client:

QUICK QUACK CAR WASH
1380 LEAD HILLS BLVD., STE. 260
ROSEVILLE, CA 95661

Revisions:

No.	Description	Date
	ENTITLEMENT SUBMITTAL	07/12/2022
	CLIENT COORDINATION	05/19/2022

Project No.:	210606.01
Drawn By:	TC
Reviewed By:	--
Scale:	AS NOTED
Date:	
Filename:	--

Sheet Title:

COVER SHEET

Sheet #:

G 0.01

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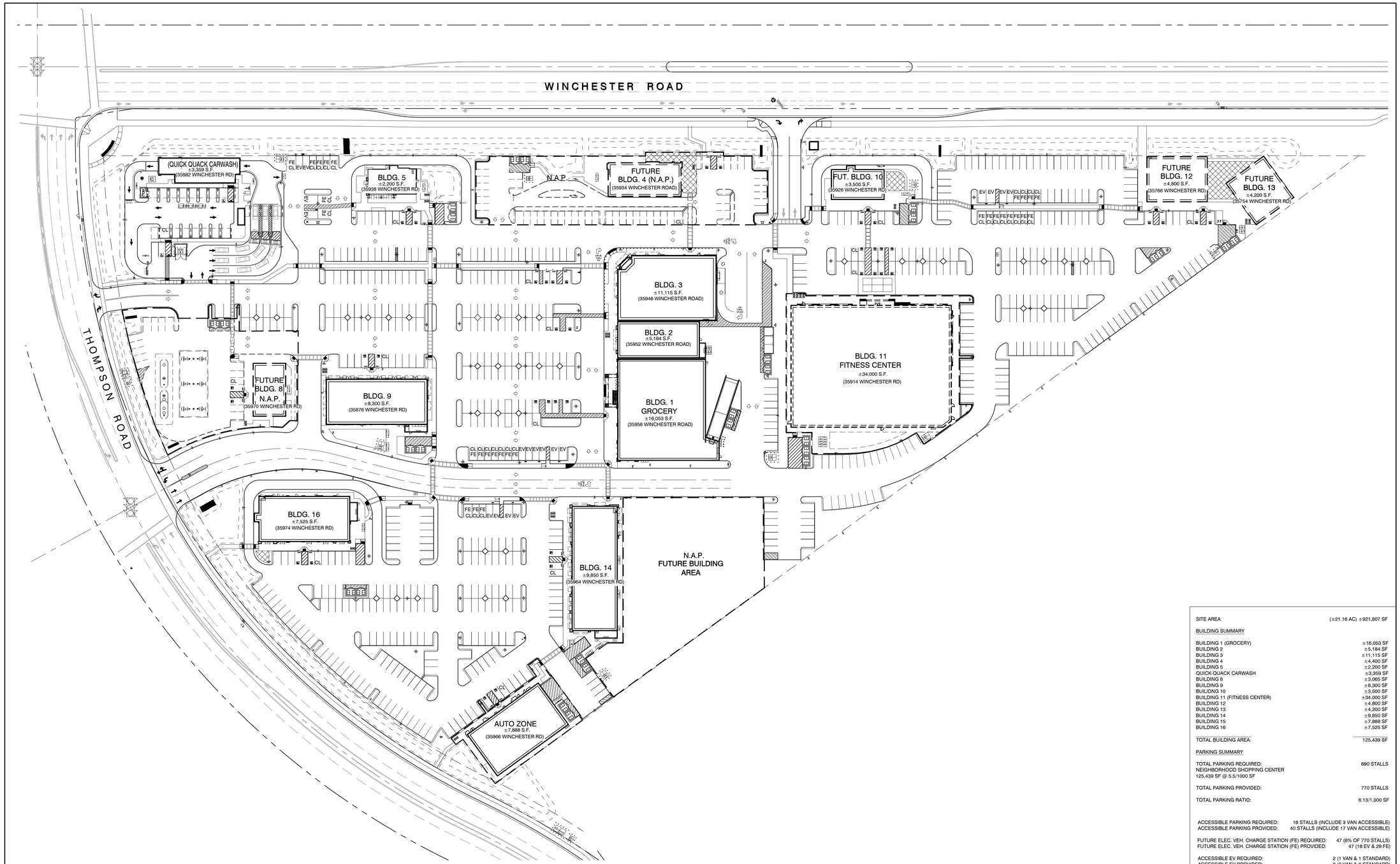

OVERALL SITE PLAN

French Valley Marketplace

NEC Winchester Rd. and Thompson Rd.
Riverside County,CA
07.19.2022

SITE PLAN | SCALE 1" = 60' | 1

SITE AREA	(±21.16 AC) ±921,807 SF
BUILDING SUMMARY	
BUILDING 1 (GROCERY)	±16,053 SF
BUILDING 2	±5,184 SF
BUILDING 3	±11,115 SF
BUILDING 4	±4,400 SF
BUILDING 5	±2,200 SF
QUICK QUACK CARWASH	±3,359 SF
BUILDING 8	±3,065 SF
BUILDING 9	±8,300 SF
BUILDING 10	±3,500 SF
BUILDING 11 (FITNESS CENTER)	±34,000 SF
BUILDING 12	±4,800 SF
BUILDING 13	±4,200 SF
BUILDING 14	±9,850 SF
BUILDING 15	±7,888 SF
BUILDING 16	±7,525 SF
TOTAL BUILDING AREA:	125,439 SF
PARKING SUMMARY	
TOTAL PARKING REQUIRED: NEIGHBORHOOD SHOPPING CENTER 125,439 SF @ 5.5/1000 SF	690 STALLS
TOTAL PARKING PROVIDED:	770 STALLS
TOTAL PARKING RATIO:	6.13/1,000 SF
ACCESSIBLE PARKING REQUIRED:	16 STALLS (INCLUDE 3 VAN ACCESSIBLE)
ACCESSIBLE PARKING PROVIDED:	40 STALLS (INCLUDE 17 VAN ACCESSIBLE)
FUTURE ELEC. VEH. CHARGE STATION (FE) REQUIRED:	47 (6% OF 770 STALLS)
FUTURE ELEC. VEH. CHARGE STATION (FE) PROVIDED:	47 (18 EV & 29 FE)
ACCESSIBLE EV REQUIRED:	2 (1 VAN & 1 STANDARD)
ACCESSIBLE EV PROVIDED:	8 (2 VAN & 6 STANDARD)
CLEAR AIR (CL) VEHICLE PARKING REQUIRED:	62 (8% OF 770)
CLEAN AIR (CL) VEHICLE PARKING PROVIDED:	62 (18 EV, 29 FE, 15 CL)
BICYCLE PARKING REQUIRED:	39 (5% OF 770)
BICYCLE PARKING PROVIDED:	40 (20 UNITS OF 2 BIKES EACH)

SITE DATA | SCALE N.A. | B

	PARCEL LINE
	LANDSCAPE AREA
EV	ELECTRIC VEHICLE
FE	FUTURE ELECTRIC VEHICLE
CL	CLEAN AIR VEHICLE

LEGEND | SCALE N.A. | A

mcg architecture
T 949.553.1117 F 949.474.7056
15635 Alton Parkway, Suite 100, Irvine, CA 92618

Seal:

A Project for:

FRENCH VALLEY MARKETPLACE
FRENCH VALLEY,
RIVERSIDE COUNTY, CALIFORNIA 92596

Client:

HALFERTY DEVELOPMENT COMPANY
199 SOUTH LOS ROBLES AVE., STE. 840
PASADENA, CA 91101

Revisions:

No.	Description	Date

Project No.:	19.285.01
Drawn By:	
Reviewed By:	
Scale:	AS NOTED
Date:	04-03-19
Filename:	--

Sheet Title:

OVERALL SITE PLAN

Sheet #:

A-001

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QUICK QUACK CAR WASH
#44-264

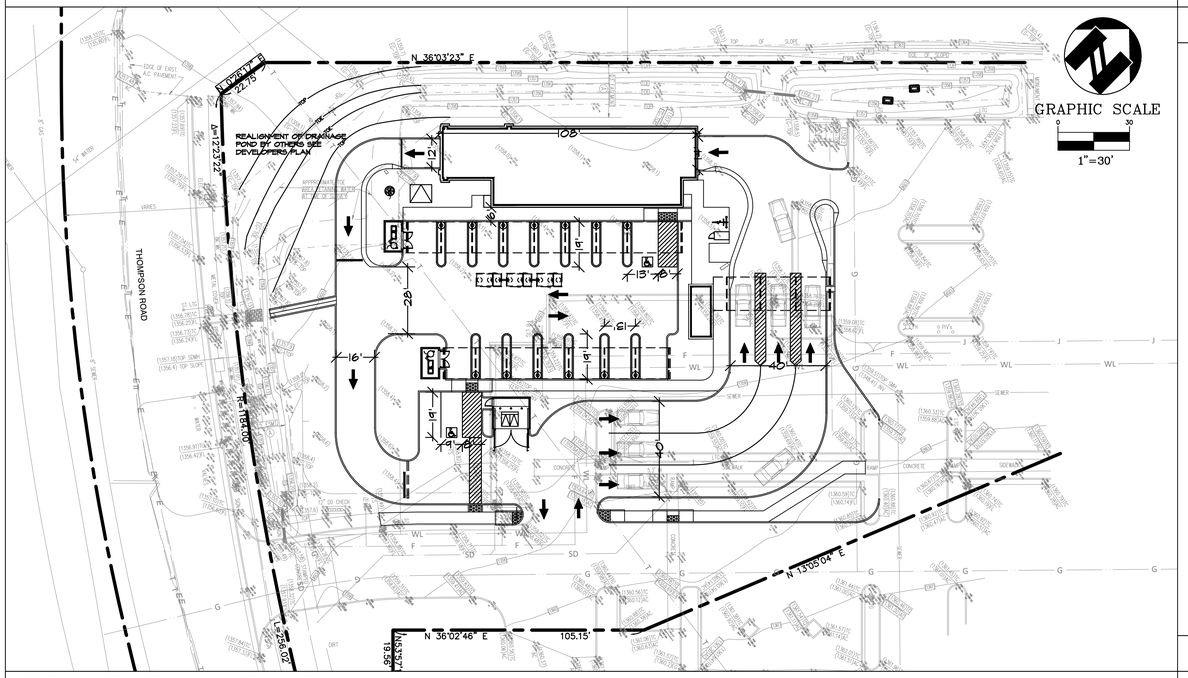
N.E CORNER OF
WINCHESTER & THOMPSON RD.
RIVERSIDE COUNTY, CALIFORNIA

ABBREVIATIONS AND LEGEND

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
ASB	AGGREGATE SUBBASE
BFP	BACKFLOW PREVENTER
CB	CATCH BASIN
CL	CENTERLINE
DCV	DETECTOR CHECK VALVE
DE	DIRT ELEVATION
DWY	DRIVEWAY
E	ELECTRICAL LINE
EB	ELECTRIC BOX
EP	EDGE OF PAVEMENT
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FL	FLOWLINE
FS	FINISHED SURFACE/FIRE SERVICES
G	GAS PIPE
GB	GRADE BREAK
GM	GAS METER
GP	GUARD POST
GR	GRATE
HCR	HANDICAP RAMP
INV	INVERT
JP	JOINT POLE
JT	JOINT TRENCH
LF	LINEAR FEET
MW	MONITORING WELL
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
PAE	PUBLIC ACCESS EASEMENT
PB	PULL BOX
PCC	PORTLAND CEMENT CONCRETE
PG&E	PACIFIC GAS & ELECTRIC
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RIDGE LINE
RCP	REINFORCED CONCRETE PIPE
RPP	REDUCED PRESSURE PRINCIPLE BACKFLOW
SD	STORM DRAIN PIPE
SDCB	STORM DRAIN CATCH BASIN
SDCO	STORM DRAIN CLEANOUT
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER PIPE
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SW	SIDEWALK
T	TELEPHONE LINE
TC	TOP OF CURB
TH	TOP OF CONCRETE HEADER
TP	TELEPHONE POLE
TS	TRAFFIC SIGNAL
TSB	TRAFFIC SIGNAL BOX
TW	TOP OF RETAINING WALL
VG	VALLEY GUTTER
W	WATER PIPE
WM	WATER METER
TCD	TOP OF CHECK DAM

CONTROLLER CABINET
GUY POLE
HANDICAP SPACE
MW MONITORING WELL
POWER POLE
IRON PIPE
RAILROAD SPIKE
STANDARD CITY MONUMENT
SURVEY MONUMENT
STORM DRAIN MANHOLE
STREET SIGN
STREET LIGHT
WATER VALVE
12" TREE WITH SIZE
TREE REMOVAL
TRANSFORMER
BARBED WIRE FENCE
CHAIN-LINKED FENCE
WOOD FENCE
SAWCUT LINE
WALL
SD EXISTING STORM DRAIN CATCH BASIN
WM EXISTING WATER METER / GAS METER
EXISTING SANITARY SEWER CLEANOUT
EXISTING FIRE HYDRANT
S EXISTING SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
EXISTING WATER VALVE
EXISTING GAS VALVE
51 EXISTING CONTOUR
XX.XX EXISTING ELEVATION
TC – TOP OF CURB ELEVATION
FS – FINISHED SURFACE
GR – GRATE ELEVATION
FL – FLOW LINE
HP – HIGH POINT
51 PROPOSED CONTOUR
3.0% SLOPE
PROPOSED CURB
PROPOSED BIOSWALE CURB
PROPOSED CURB AND GUTTER
PROPOSED FIRE LANE
HANDICAP RAMP

6"W EXISTING WATER LINE
2"G EXISTING GAS LINE
8"SS EXISTING SANITARY SEWER LINE
SD EXISTING STORM DRAIN LINE
E EXISTING ELECTRICAL LINE
TEL EXISTING TELEPHONE LINE
PROPOSED STORM DRAIN CATCH BASIN
WM GM PROPOSED WATER METER / GAS METER
PROPOSED SANITARY SEWER CLEANOUT
PROPOSED FIRE HYDRANT
PROPOSED SANITARY SEWER MANHOLE
SD PROPOSED STORM DRAIN MANHOLE
WV PROPOSED WATER VALVE
GV PROPOSED GAS VALVE
6"FS PROPOSED FIRE SERVICE
W PROPOSED WATER LINE
2"G PROPOSED GAS LINE
S PROPOSED SANITARY SEWER LINE
SD PROPOSED STORM DRAIN LINE
E PROPOSED ELECTRICAL LINE
TEL PROPOSED TELEPHONE LINE
JUT PROPOSED JOINT UTILITY TRENCH
OVERLAND RELEASE
R RIDGE LINE
PARKING LIGHT
PERFORATED PIPE



VICINITY MAP
NOT TO SCALE

SHEET INDEX

CIVIL PLANS

1. C-1.1 COVER SHEET
2. C-2.1 HORIZONTAL CONTROL PLAN
3. C-3.1 GRADING PLAN
4. C-4.1 UTILITY PLAN

PROJECT CONTACTS

DEVELOPER
JAMES HALFERTY
HALFERTY DEVELOPMENT COMPANY, LLC
199 SOUTH LOS ROBLES AVENUE, SUITE 840
PASADENA, CA 91101
OFFICE: (626) 405-0956 X 1115
E-MAIL: jhalferty@halferty.com

PROJECT MANAGER
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QUICK QUACK CAR WASH
PHONE: (916) 200-8659
EMAIL: cterry@dontdrivedirty.com

CIVIL ENGINEER
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PHONE: (925) 943-2778
AL SHAGHAGHI
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EMAIL: jlee@kineticdesing.build
EMAIL: nbilyeu@kineticdesign.build

WATER/SEWER
EMWD
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD
PERRIS, CA 92570
(951)-928-3777

GAS
SOUTHERN CALIFORNIA GAS COMPANY
2065 WEST AVENUE K
LANCASTER, CA 93536
(800) 427-2200

PLANNING/ENGIEERING
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE CA 92501
E-MAIL: PLANNING@RIVCO.ORG
(951)-955-3200

WDID#:

PROJECT DATA

BENCHMARK:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, CCS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "BILL", "MLFP", AND "P584" NAD83(NSRS2011) EPOCH 2010.00. ALL BEARINGS SHOWN ON THIS MAP ARE GRID. ALL DISTANCES SHOWN ARE GROUND DISTANCES.

BASIS OF BEARING:
ELEVATION = 1335.34 FT, (NAVD88)
THE STATION IS LOCATED ABOUT 1 MILE (1.6 KM) NORTH OF THE CENTETHE FRENCH VALLEY AIRPORT AT THE JUNCTION OF TWO DIRT ROADS AND A FARM LANE. THE STATION IS LOCATED 68.7 FT (20.9 M) NW OF A TELEPHONE POLE, 31.6 FT (9.6 M) NORTH OF A TELEPHONE JUNCTION BOX, AND 4.4 FT (1.3 M) SOUTH OF A 4 FT (1.2 M) X 6 FT (1.8 M) WOODEN MAILBOX POST. THE
STATION IS A STANDARD BENCH MARK DISK STAMPED Z 311 1935 SET IN THE TOP OF A SQUARE MONUMENT SET FLUSH WITH THE SURFACE OF THE DIRT ROAD.

FEMA FLOOD ZONE:

ZONE: D
AREA OF FLOOD RISK DUE TO LEVEE
MAP NO. 06065C2730G
EFFECTIVE DATE: AUGUST 28,2008

SITE ZONING:

ZONE – SP – SPECIFIC PLAN

DATE:	07-07-22	REV #	BY	DATE	DESCRIPTION
SCALE:	1"= 30'				
DESIGNED:	AMS				
DRAWN:	AMS				
CHECKED:	AMS				
PROJ. MGR:	AS				

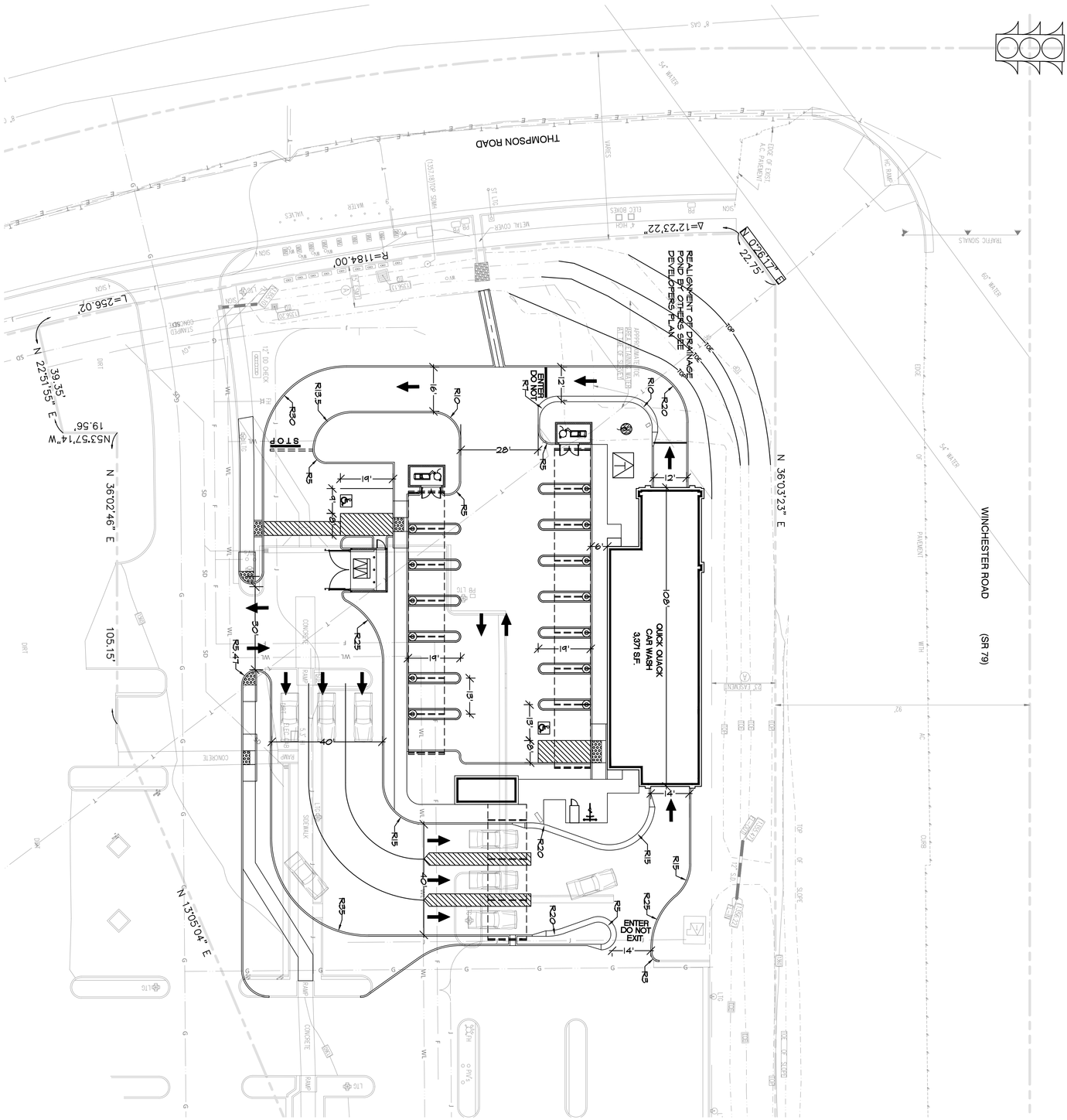
ams associates, inc. PLANNING ENGINEERING SURVEYING
801 YGNACIO VALLEY ROAD
SUITE 220
WALNUT CREEK, CA 94596
925-943-2777 FAX 925-943-2778

COVER SHEET
QUICK QUACK CAR WASH #42-242
N.E CORNER OF WINCHESTER RD & THOMPSON RD.
RIVERSIDE COUNTY CALIFORNIA

SHEET C-1.1 OF PROJECT 22-2160

FILE PATH: D:\AMS ASSOCIATES\AMS ASSOCIATES - PRODUCTION\22-2610 QQ# 44-264 WINCHESTER - WINCHESTER & THOMPSON, REIVERSIDE CA\LATEST DATE DIRECTORY\06-16-22\2610COVER.DWG

THIS DOCUMENT AND THE IDEAS AND DESIGN INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICES IS THE PROPERTY OF ams ASSOCIATES, INCORPORATED AND IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF ams ASSOCIATES, INCORPORATED.



SHEET							
C-2.1 OF	SITE PLAN QUICK QUACK CAR WASH #44-264 N.E CORNER OF WINCHESTER RD & THOMPSON RD RIVERSIDE COUNTY CALIFORNIA	ams associates, inc. PLANNING ENGINEERING SURVEYING 801 YGNACIO VALLEY ROAD SUITE 220 WALNUT CREEK, CA 94596 925-943-2777 FAX 925-943-2778	DATE: 07-07-22	REV #	BY	DATE	DESCRIPTION
PROJECT			SCALE: 1"= 20'	△			
22-2610			DESIGNED:	△			
			DRAWN:	△			
			CHECKED:	△			
			PROJ. MGR:	△			
			FILE PATH:				

D:\AMS ASSOCIATES\AMS ASSOCIATES - PRODUCTION\22-2610 QQ# 44-264 WINCHESTER - WINCHESTER & THOMPSON, REIVERSIDE CA\LATEST DATE DIRECTORY\06-16-22\2610SITE.DWG

DATE:	07-07-22	REV #	BY	DATE	DESCRIPTION
SCALE:	1"= 20'				
DESIGNED:					
DRAWN:					
CHECKED:					
PROJ. MGR:					
FILE PATH:					

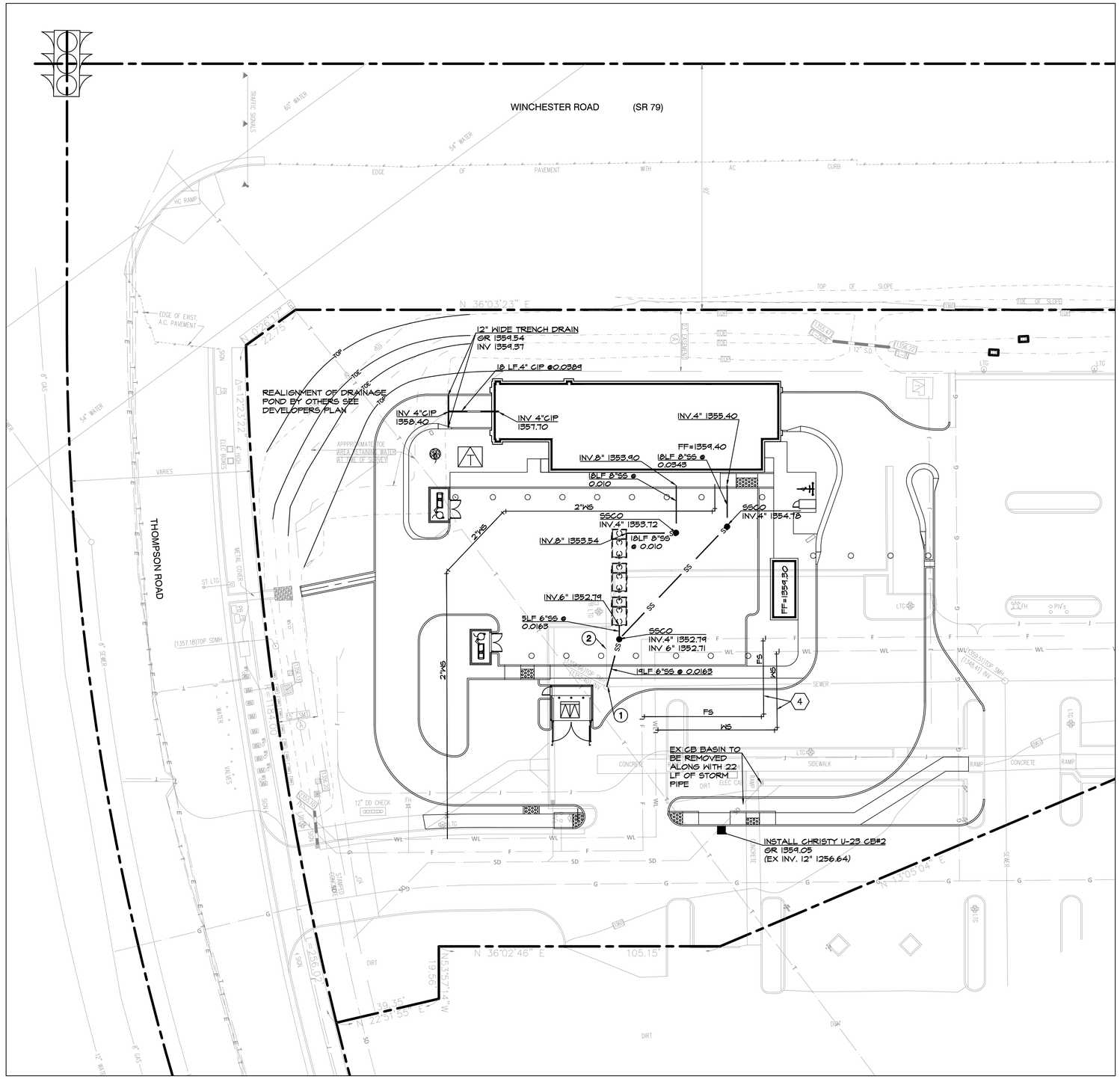
801 YGNACIO VALLEY ROAD
SUITE 220
WALNUT CREEK, CA 94596
925-943-2777 FAX 925-943-2778
ams associates, inc. PLANNING ENGINEERING SURVEYING

GRADING PLAN
QUICK QUACK CAR WASH #44-264

N.E CORNER OF WINCHESTER RD & THOMPSON RD.
RIVERSIDE COUNTY CALIFORNIA

SHEET C-3.1 OF
PROJECT 22-2610

D:\AMS ASSOCIATES\AMS ASSOCIATES - PRODUCTION\22-2610 QQ# 44-264 WINCHESTER - WINCHESTER & THOMPSON, REIVERSIDE CA\LATEST DATE DIRECTORY\06-16-22\26 GRADE.DWG



GRAPHIC SCALE

0 20

1"=20'

WATER NOTES:

1. INSTALL 2" DOMESTIC SERVICE W/ 1.5" WATER METER PER COUNTY OF RIVERSIDE STANDARD AND REQUIREMENTS
2. INSTALL 1" IRRIGATION WATER METER AND SERVICE PER COUNTY OF RIVERSIDE STANDARDS AND REQUIREMENTS
3. INSTALL BACKFLOW PREVENTOR ASSEMBLY ¾" TO 2" ABOVE GROUND FOR DOMESTIC AND IRRIGATION SERVICES PER COUNTY OF RIVERSIDE STANDARDS AND REQUIREMENTS
4. CONTRACTOR TO RELOCATE A PORTION OF EXISTING FIRE AND WATER SERVICE

SEWER NOTES:

1. CONTRACTOR TO VERIFY EXISTING SANITARY SEWER SIZE AND INV. BEFORE START OF CONSTRUCTION AND NOTIFY QUICK QUACK AND AMS ENGINEER OF FINDINGS BEFORE START OF CONSTRUCTION.
2. CONTRACTOR TO ABANDON AND REMOVE PORTION OF EXISTING SEWER LINE FROM EXISTING SEWER MANHOLE PER GEOTECH RECOMMENDATIONS

CITY UTILITIES VERIZON, SCE. CALL BEFORE YOU DIG USA 800-227-2600 P.G.&E. CABLE TV.

DATE:	07-07-22	REV #	BY	DATE	DESCRIPTION
SCALE:	1"= 20'				
DESIGNED:					
DRAWN:					
CHECKED:					
PROJ. MGR:					
FILE PATH:					

ams associates, inc.
801 YGNACIO VALLEY ROAD
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WALNUT CREEK, CA 94596
925-943-2777 FAX 925-943-2778
PLANNING ENGINEERING SURVEYING

UTILITY PLAN

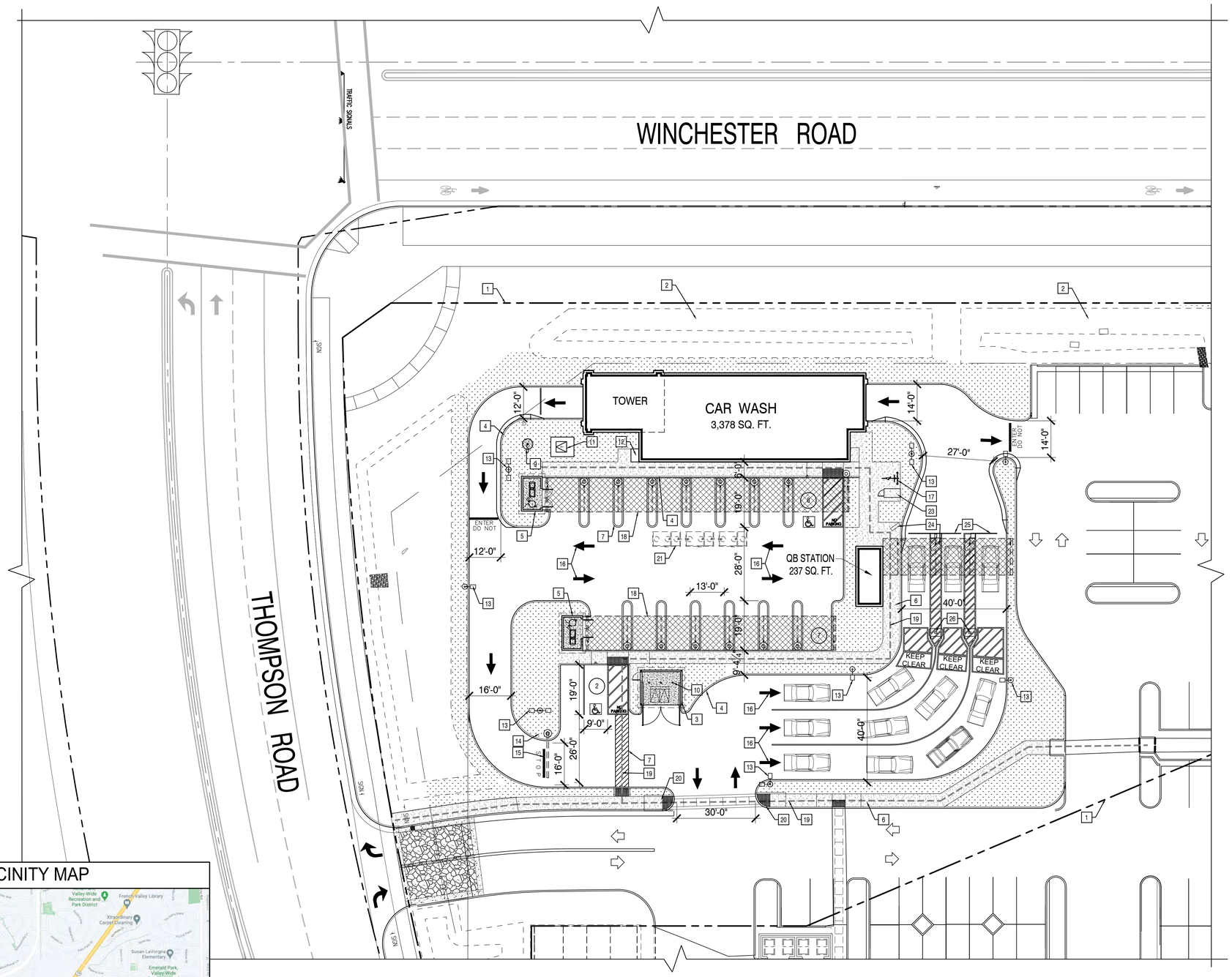
QUICK QUACK CAR WASH #44-264

N.E CORNER OF WINCHESTER RD & THOMPSON RD.
RIVERSIDE COUNTY CALIFORNIA

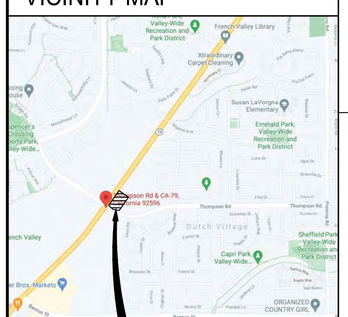
SHEET C-4.1 OF

PROJECT 22-2610

D:\AMS ASSOCIATES\AMS ASSOCIATES - PRODUCTION\22-2610 QQ# 44-264 WINCHESTER - WINCHESTER & THOMPSON, REIVERSIDE CA\LATEST DATE DIRECTORY\06-16-22\2610UTILITY.DWG



VICINITY MAP



VICINITY MAP
N.T.S.

PROJECT LOCATION

Scale : 1" = 20'-0"

0 10' 20' 40'

SITE PLAN | SCALE 1" = 20'-0" | 1

PROJECT SUMMARY

DEVELOPER:	QUICK QUACK CAR WASH 1380 LEAD HILL BOULEVARD, SUITE 260 ROSEVILLE, CA 95611
PROPERTY ADDRESS:	THOMPSON AND WINCHESTER ROAD FRENCH VALLEY, CA
APN:	480-170-019
ZONING:	SP - SPECIFIC PLAN
GROSS LAND AREA:	±1.37 AC 59,677 SF
EXISTING LAND USE:	VACANT LOT
PROPOSED LAND USE:	COMMERCIAL - CAR WASH FACILITY

PROPOSED CARWASH AREA:

GROSS BUILDING AREA	3,615 SF
MAXIMUM BUILDING HEIGHT	29'-0"
CONSTRUCTION TYPE:	VB
OCCUPANCY:	B
SPRINKLERS:	NO
PARKING REQUIRED	2 STALLS
PARKING PROVIDED	2 STALLS
VACUUM STALLS	15 STALLS
BICYCLE SPACES REQUIRED	1
BICYCLE SPACES PROVIDED	2

SITE COVERAGE SUMMARY:

BUILDING COVERAGE (FAR)	4.52 %
LANDSCAPE AREA	10,213 SF
LANDSCAPE COVERAGE	13.7%

KEYNOTES:

1. EXISTING PROPERTY LINE, REFERENCE CIVIL DRAWINGS.
2. BIO RETENTION AREA, REFERENCE CIVIL DRAWINGS.
3. TRASH ENCLOSURE. REFERENCE DETAIL 1/AS 1.08
4. CONCRETE CURB OR CURB AND GUTTER. REFERENCE CIVIL DRAWINGS
5. VACUUM EQUIPMENT ENCLOSURE. REFERENCE DETAIL 9/AS 5.01
6. WALKWAY - 4" CONCRETE WITH NATURAL GRAY CONCRETE MEDIUM BROOM FINISH, 48" MIN. WIDTH WALKWAY, 5% MAX. SLOPE IN THE DIRECTION OF TRAVEL, 2% MAXIMUM CROSS-SLOPE
7. PARKING LOT STRIPING. 4" WIDE LINES PAINTED "WHITE" TYPICAL
8. SITE ENTRANCE TOW AWAY SIGN.
9. 30' FLAG POLE. STYLE: "MEMORIAL" UNCOMMON USA, INC.
10. PIPE BOLLARD
11. TRANSFORMER AND PAD PROVIDED BY PG&E. REFERENCE CIVIL DRAWINGS.
12. ELECTRIC METER CABINET LOCATION
13. LIGHT STANDARD BASE. REFERENCE ELECTRICAL DRAWINGS .
14. PROVIDE "STOP" SIGN ON POLE
15. PAINT STOP SIGN PER CITY STANDARDS
16. PAINT PAVEMENT DIRECTIONAL ARROW
17. BIKE RACKS
18. LINE OF METAL CANOPY ABOVE
19. ACCESSIBLE PATH OF TRAVEL
20. ACCESSIBLE RAMP. REFERENCE CIVIL DRAWINGS.
21. CLARIFIER, REFERENCE CIVIL DRAWINGS.
22. ROLLED CURB, REFERENCE CIVIL DRAWINGS.
23. BIKE LOCKER
24. MENU BOARD
25. GATE
26. LICENSE PLATE RECOGNITION

LEGEND:

- LIGHT STAND. REFERENCE ELECTRICAL DRAWINGS
- WALKWAY - 4" CONCRETE WITH NATURAL GRAY CONCRETE MEDIUM BROOM FINISH
- LANDSCAPING AND IRRIGATION SYSTEM. REFERENCE LANDSCAPE DRAWINGS
- VACUUM CANOPY SYSTEM. (TYP)
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL
- # INDICATES NUMBER OF PARKING SPACES

LA Design Group, Inc.
21671 GATEWAY CENTER DRIVE, STE. 213
DIAMOND BAR, CA 91765
(T) 909.860.1010

Seal:

LICENSED ARCHITECT
FARIBA SHORAVI SHANTIAI
C 25558
EXP. 03/31/23
STATE OF CALIFORNIA

NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency comments/ approvals. No warranties or guaranties of any kind are given or implied by the Architect.

A Project for:

Quick Quack CAR WASH

(STORE 44-264)
THOMPSON ROAD AND WINCHESTER ROAD
FRENCH VALLEY, CA

Client:

QUICK QUACK CAR WASH
1380 LEAD HILLS BLVD., STE. 260
ROSEVILLE, CA 95661

Revisions:

ENTITLEMENT SUBMITTAL	07/12/2022
CLIENT COORDINATION	05/19/2022
No. Description	Date

Project No.:	210606.01
Drawn By:	--
Reviewed By:	--
Scale:	AS NOTED
Date:	
Filename:	--

Sheet Title:

SITE PLAN

Sheet #:

AS 1.01

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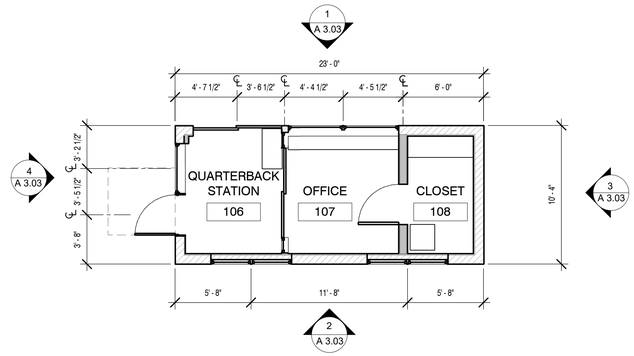
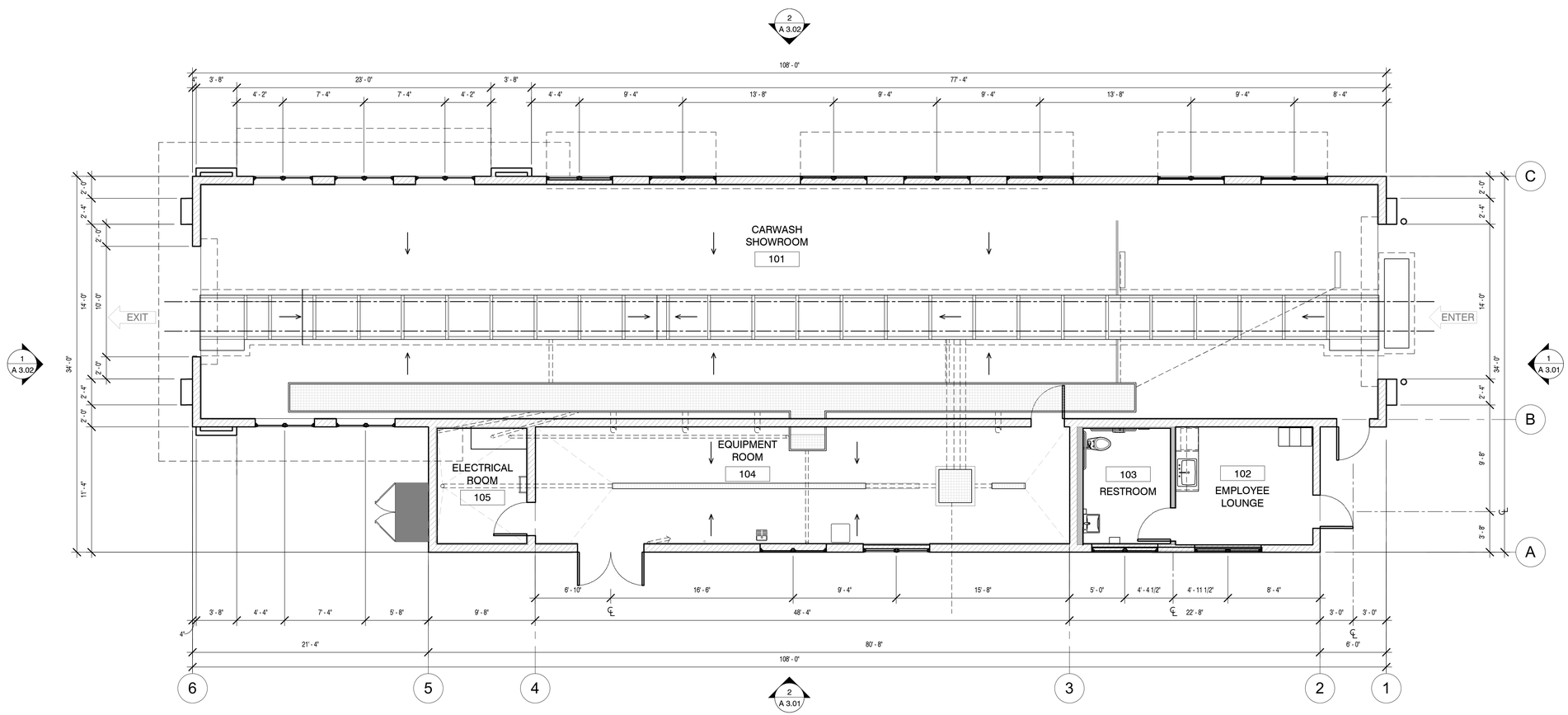


QB STATION FLOOR PLAN | SCALE 3/16" = 1'-0" | 2



FLOOR PLAN | SCALE 3/16" = 1'-0" | 1

LA Design Group, Inc.
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Seal:

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A Project for:

Quick Quack CAR WASH

(STORE 44-264)
WINCHESTER & THOMPSON ROAD
FRENCH VALLEY, CA

Client:

QUICK QUACK CAR WASH

1380 LEAD HILLS BLVD., SUITE 260
ROSEVILLE, CA 95661

Revisions:

No.	Description	Date
	ENTITLEMENT PACKAGE	07/01/2022

Project No.:	210606
Drawn By:	--
Reviewed By:	--
Scale:	3/16" = 1'-0"
Date:	
Filename:	--

Sheet Title:

FLOOR PLAN

Sheet #:

A 2.01

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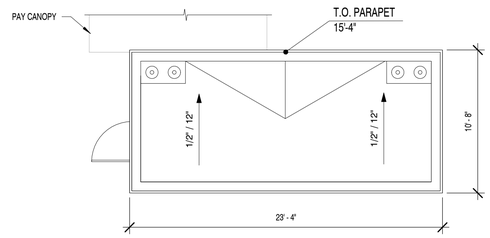
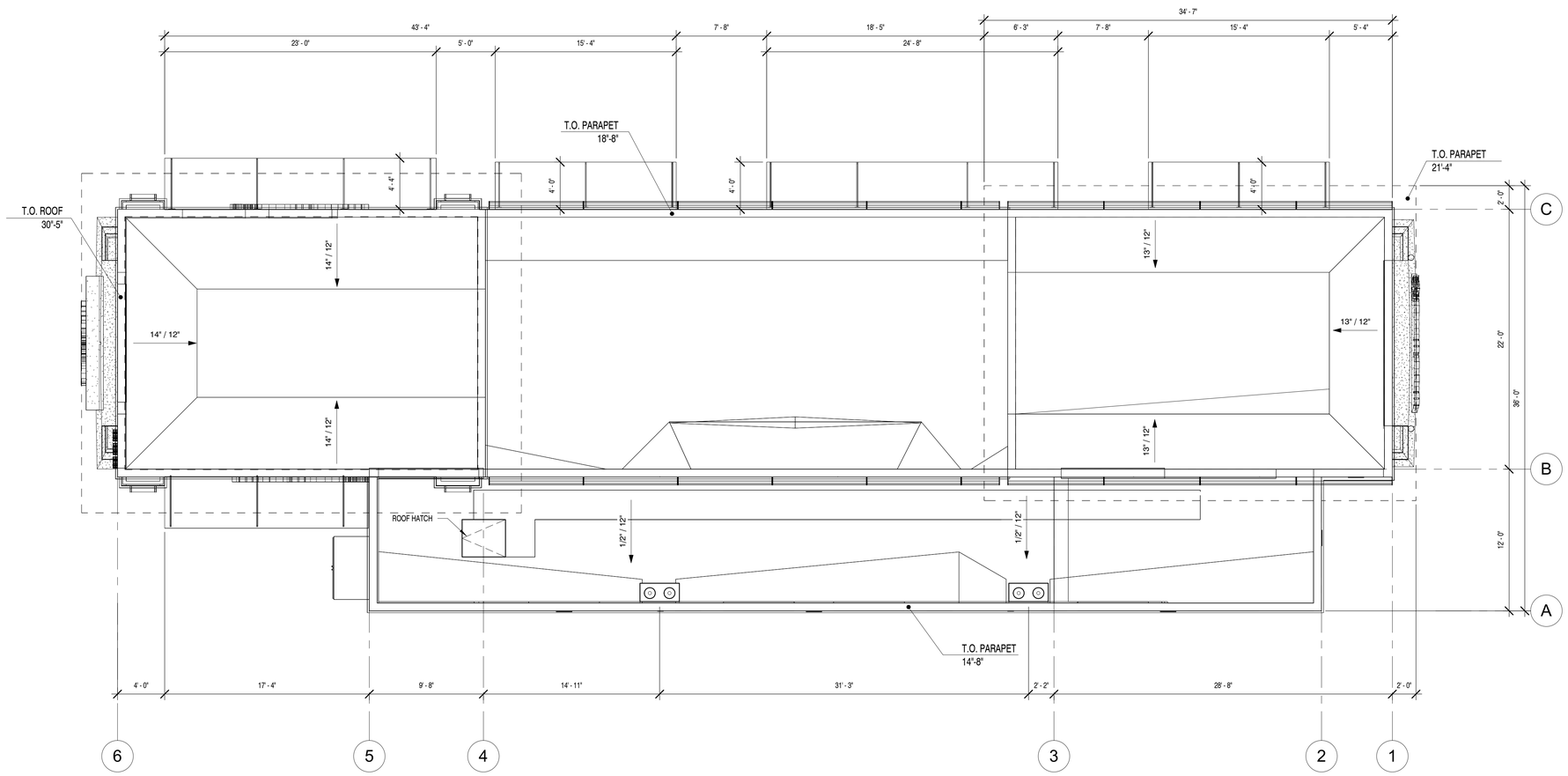


QB STATION ROOF PLAN | SCALE 3/16" = 1'-0" | 2



ROOF PLAN | SCALE 3/16" = 1'-0" | 1

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Seal:

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Quick Quack CAR WASH

(STORE 44-264)
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FRENCH VALLEY, CA

Client:

QUICK QUACK CAR WASH

1380 LEAD HILLS BLVD., SUITE 260
ROSEVILLE, CA 95661

Revisions:

No.	Description	Date
	ENTITLEMENT PACKAGE	07/01/2022

Project No.:	210606
Drawn By:	Author
Reviewed By:	--
Scale:	3/16" = 1'-0"
Date:	11/11/21
Filename:	--
Sheet Title:	

ROOF PLAN

Sheet #:

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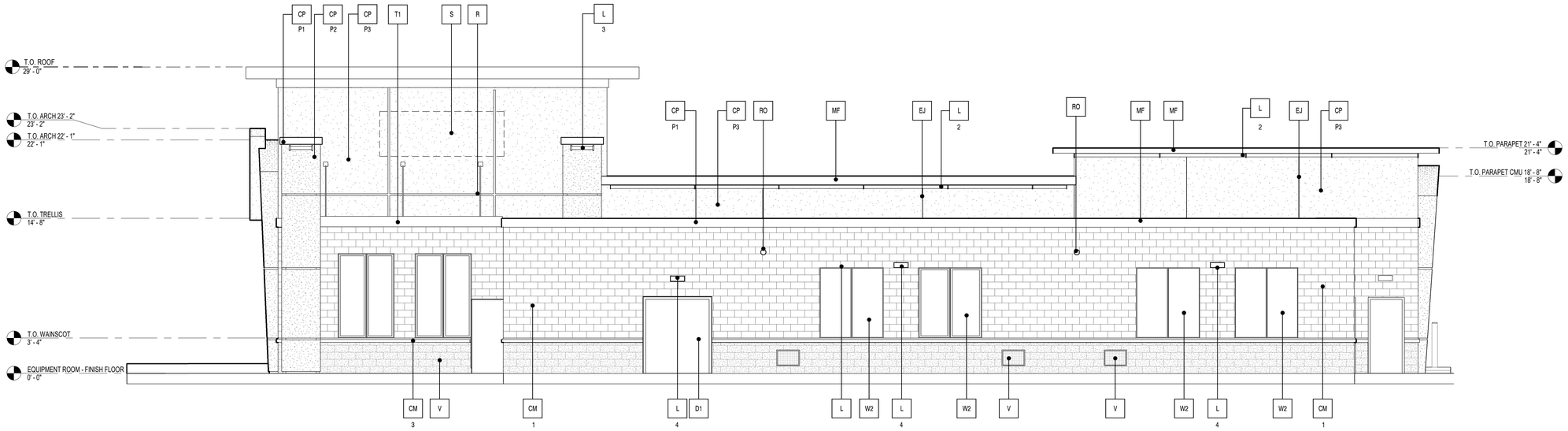
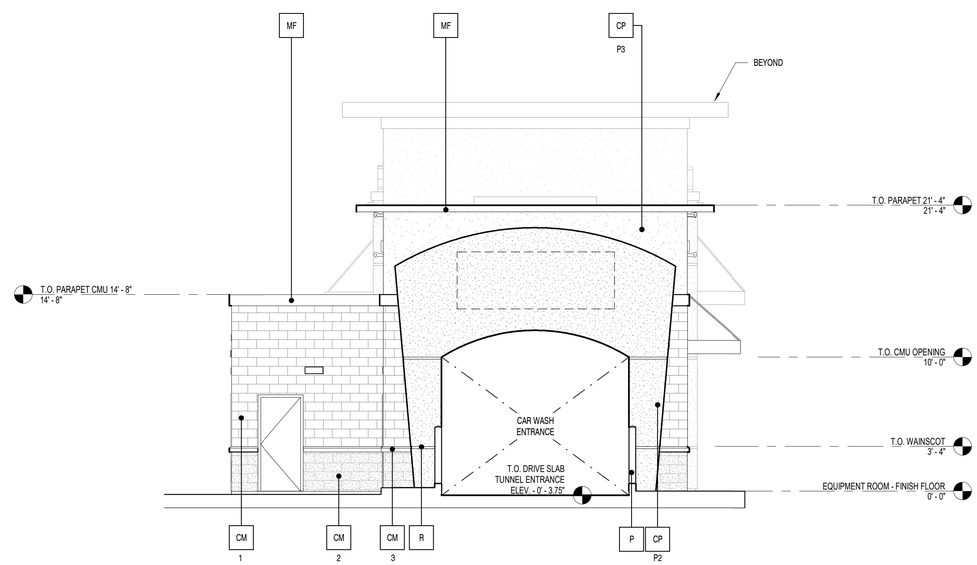


KEYNOTES

CM 1	BASALITE SMOOTH HONED FACE CONCRETE MASONRY UNITS - INTEGRAL COLOR STANDARD #225 LIGHT GRAY. WITH INTEGRAL FACTORY "RAINBLOC" WATER REPELLENT ADMIXTURE. MORTAR TO HAVE "RAINBLOC" FOR MORTAR ADMIXTURE. MORTAR COLOR TO MATCH.
CM 2	BASALITE SPLIT FACE CONC. MASONRY INTEGRAL COLOR STANDARD #790 - DARK GRAY
CM 3	PRECISION FACE CONCRETE MASONRY UNIT SILL INTEGRAL COLOR TO MATCH DARK GRAY WAINSCOT WITH INTEGRAL FACTORY "RAINBLOC" WATER REPELLENT ADMIXTURE. MORTAR TO HAVE "RAINBLOC" FOR MORTAR ADMIXTURE. MORTAR COLOR TO MATCH.
CP P	ACRYLIC PLASTER COLOR COAT COLOR DESIGNATION: P1 = MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" P2 = MATCH SHERWIN WILLIAMS #6902 "DECISIVE YELLOW" P3 = MATCH SHERWIN WILLIAMS #7004 "SNOWBOUND" PLASTER COLOR COAT TO BE SAND FINISH
D1	HOLLOW METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D2	OVERHEAD METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D3	CLEAR ANODIZED ALUMINUM COMMERCIAL GRADE STOREFRONT GLASS DOOR
DS	8" X 16" THROUGH WALL SCUPPER, COLLECTOR AND DOWNSPOUT. PAINT TO MATCH ADJACENT SURFACE
EJ	1/4" DEEP REVEAL EXPANSION JOINT
L 1	LIGHT FIXTURE TYPE: L1 = LED RADIAL WALL SCONCE (DOWN ONLY) L2 = LINEAR FACADE WALL LIGHT (DOWN ONLY) L3 = 2 FOOT LED PILASTER LIGHT (DOWN ONLY) L4 = WALL PACK (DOWN ONLY) CONTACT STEVE FRIEDMAN 1.262.504.5479 WITH CREE LIGHTING FOR ORDERING LIGHTING. (NO EXCEPTIONS)
MF	METAL FASCIA - PAINT TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" (GREEN)
MS	METAL SEAM ROOF - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
P	6" PIPE BOLLARD FILLED WITH CONCRETE - MATCH SHERWIN WILLIAMS #6903 "CHEERFUL" (YELLOW)
R	2" WIDE X 1/4" DEEP CLEAR ANODIZED ALUMINUM PLASTER REVEAL
RF	METAL ROOF FASCIA - MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" (GREEN)
RO	PVC ROOF OVERFLOW SCUPPER - PAINT TO MATCH ADJACENT FINISH
S	SIGNAGE BY OTHERS SHOWN DASHED- FOR REFERENCE ONLY UNDER SEPARATE PERMIT. GENERAL CONTRACTOR TO COORDINATE WITH SIGN COMPANY.
SS	STANDING SEAM METAL ROOF FIRESTONE UC3 - "DARK IVY".
T1	METAL WALL CANOPY SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
T2	WALL CANOPY TIE-BACK SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
V	24" WIDE X 16" HIGH VENT - PAINT TO MATCH ADJACENT FINISH
W1	EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
W2	EXTERIOR FAUX WINDOW ASSEMBLY - WITH BLACK CERAMIC FRIT TEMPERED SPANDREL GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
WS	JAMES HARDIE BUILDING PRODUCTS - ASPYRE DESIGN - ARTISAN SHIPLAP SIDING - PAINT TO MATCH SHERWIN WILLIAMS #7032 "WARM STONE"

SOUTH ELEVATION — SCALE 3/16" = 1'-0" — 2



EAST ELEVATION — SCALE 3/16" = 1'-0" — 1

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WINCHESTER & THOMPSON ROAD
FRENCH VALLEY, CA

Client:

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1380 LEAD HILLS BLVD., SUITE 260
ROSEVILLE, CA 95661

Revisions:

ENTITLEMENT PACKAGE	07/01/2022
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Project No.:	210606
Drawn By:	--
Reviewed By:	--
Scale:	As indicated
Date:	
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SE EXTERIOR ELEVATIONS

Sheet #:

A 3.01

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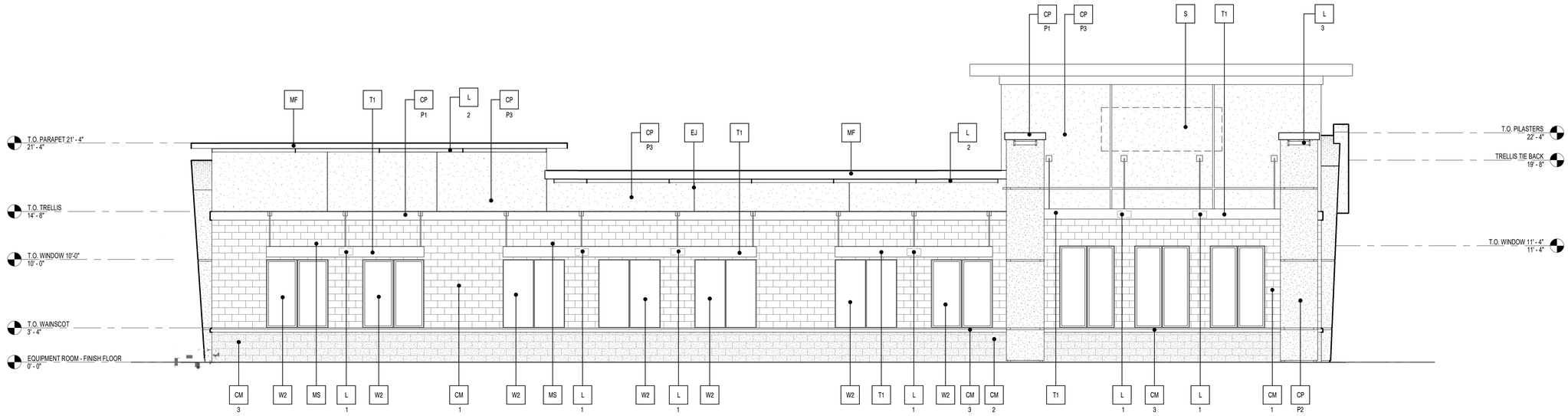
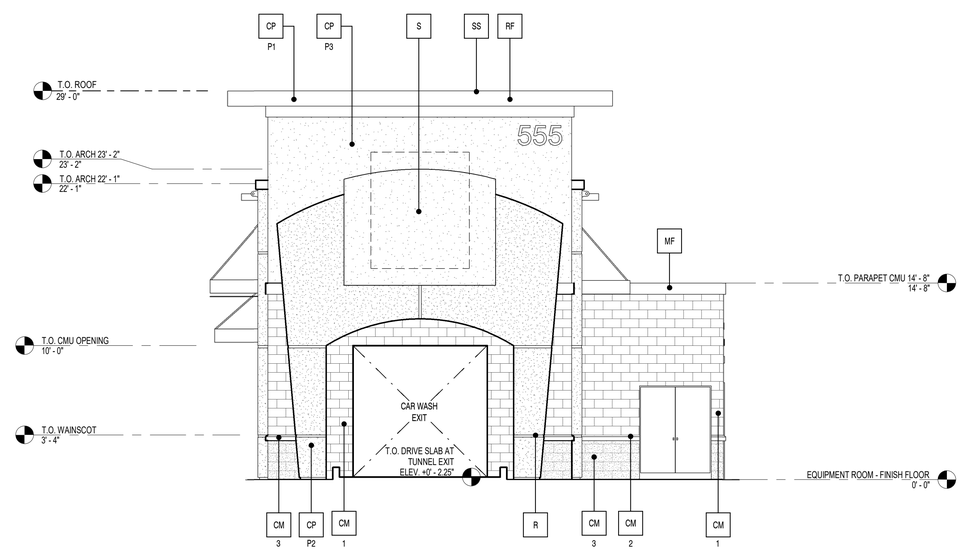


KEYNOTES

CM 1	BASALITE SMOOTH HONED FACE CONCRETE MASONRY UNITS - INTEGRAL COLOR STANDARD #225 LIGHT GRAY. WITH INTEGRAL FACTORY "RAINBLOC" WATER REPELLENT ADMIXTURE. MORTAR TO HAVE "RAINBLOC" FOR MORTAR ADMIXTURE. MORTAR COLOR TO MATCH.
CM 2	BASALITE SPLIT FACE CONC. MASONRY INTEGRAL COLOR STANDARD #790 - DARK GRAY
CM 3	PRECISION FACE CONCRETE MASONRY UNIT SILL INTEGRAL COLOR TO MATCH DARK GRAY WAINSCOT WITH INTEGRAL FACTORY "RAINBLOC" WATER REPELLENT ADMIXTURE. MORTAR TO HAVE "RAINBLOC" FOR MORTAR ADMIXTURE. MORTAR COLOR TO MATCH.
CP P	ACRYLIC PLASTER COLOR COAT COLOR DESIGNATION: P1 = MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" P2 = MATCH SHERWIN WILLIAMS #6902 "DECISIVE YELLOW" P3 = MATCH SHERWIN WILLIAMS #7004 "SNOWBOUND" PLASTER COLOR COAT TO BE SAND FINISH
D1	HOLLOW METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D2	OVERHEAD METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D3	CLEAR ANODIZED ALUMINUM COMMERCIAL GRADE STOREFRONT GLASS DOOR
DS	8" X 16" THROUGH WALL SCUPPER, COLLECTOR AND DOWNSPOUT. PAINT TO MATCH ADJACENT SURFACE
EJ	1/4" DEEP REVEAL EXPANSION JOINT
L 1	LIGHT FIXTURE TYPE: L1 = LED RADIAL WALL SCONCE (DOWN ONLY) L2 = LINEAR FACADE WALL LIGHT (DOWN ONLY) L3 = 2 FOOT LED PILASTER LIGHT (DOWN ONLY) L4 = WALL PACK (DOWN ONLY) CONTACT STEVE FRIEDMAN 1.262.504.5479 WITH CREE LIGHTING FOR ORDERING LIGHTING. (NO EXCEPTIONS)
MF	METAL FASCIA - PAINT TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" (GREEN)
MS	METAL SEAM ROOF - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
P	6" PIPE BOLLARD FILLED WITH CONCRETE - MATCH SHERWIN WILLIAMS #6903 "CHEERFUL" (YELLOW)
R	2" WIDE X 1/4" DEEP CLEAR ANODIZED ALUMINUM PLASTER REVEAL
RF	METAL ROOF FASCIA - MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN" (GREEN)
RO	PVC ROOF OVERFLOW SCUPPER - PAINT TO MATCH ADJACENT FINISH
S	SIGNAGE BY OTHERS SHOWN DASHED- FOR REFERENCE ONLY UNDER SEPARATE PERMIT. GENERAL CONTRACTOR TO COORDINATE WITH SIGN COMPANY.
SS	STANDING SEAM METAL ROOF FIRESTONE UC3 - "DARK IVY".
T1	METAL WALL CANOPY SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
T2	WALL CANOPY TIE-BACK SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS "QUICK QUACK GREEN"
V	24" WIDE X 16" HIGH VENT - PAINT TO MATCH ADJACENT FINISH
W1	EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
W2	EXTERIOR FAUX WINDOW ASSEMBLY - WITH BLACK CERAMIC FRIT TEMPERED SPANDREL GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
WS	JAMES HARDIE BUILDING PRODUCTS - ASPYRE DESIGN - ARTISAN SHIPLAP SIDING - PAINT TO MATCH SHERWIN WILLIAMS #7032 "WARM STONE"

NORTH ELEVATION — SCALE 3/16" = 1'-0" — 2



WEST ELEVATION — SCALE 3/16" = 1'-0" — 1

LA Design Group, Inc.
21671 GATEWAY CENTER DRIVE, STE. 213
DIAMOND BAR, CA 91765
(T) 909.860.1010

Seal:

LICENSED ARCHITECT
FARIBA SHORAVI SHAMITAI
C 25558
EXP. 03/31/23
STATE OF CALIFORNIA

NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency comments/ approvals. No warranties or guaranties of any kind are given or implied by the Architect.

A Project for:

Quick Quack CAR WASH

(STORE 44-264)
WINCHESTER & THOMPSON ROAD
FRENCH VALLEY, CA

Client:

QUICK QUACK CAR WASH

1380 LEAD HILLS BLVD., SUITE 260
ROSEVILLE, CA 95661

Revisions:

ENTITLEMENT PACKAGE	07/01/2022
No. Description	Date
Project No.:	210606
Drawn By:	--
Reviewed By:	--
Scale:	As indicated
Date:	--
Filename:	--

Sheet Title:

NW EXTERIOR ELEVATIONS

Sheet #:

A 3.02

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AIRPORT LAND USE COMMISSION MEETING
MINUTES
November 10, 2022

DRAFT

11-14-22

COMMISSIONERS PRESENT: Michael Geller, Steve Manos, Steven Stewart, Richard Stewart, Vernon Poole, Larry Smith (alternate for Russell Betts)

COMMISSIONERS ABSENT: Russell Betts, John Lyon,

2.0 PUBLIC HEARING: CONTINUED ITEMS

None

3.0 PUBLIC HEARING: NEW CASES

3.1 Staff report recommended:
CONTINUE to 12-15-22

Staff recommended at hearing:
CONTINUE to 12-15-22

ALUC Commission Action:
CONTINUED to 12-15-22
(Vote 6-0)

Motion: Michael Geller
Second: Richard Stewart

ZAP1544MA22 – PR Partners, LLC (Representative: Mike Naggar & Associates) – City of Perris Case Nos. PLN19-00012 (Specific Plan Amendment), PLN19-05287 (Zone Change), DPR19-00012 (Development Plan Review). A proposal to construct a mixed-use industrial/commercial development including a 304,572 square foot e-commerce warehouse building with mezzanines, a 2,010 square foot restaurant building with drive-thru, and a 4,950 square foot retail/restaurant building with drive-thru on a 16.12 acre parcel, located on the southwest corner of Perris Boulevard and Ramona Expressway. The applicant also proposes amending the Perris Valley Commerce Specific Plan (SPA No. 13) and changing 14.1 acres of the site's zoning from Commercial to Light Industrial (with 1.99 acres of the site remaining Commercial). (The Commission previously found consistent on this site ZAP1390MA19, a proposal to construct a 347,919 square foot industrial e-commerce and warehouse building on 16.1 acres, and a proposal to amend the Perris Valley Commerce Center Specific Plan, and change the site's zoning from Commercial to Light Industrial (Airport Compatibility Zones B1-APZ-II and C1 of the March Air Reserve Base/Inland Port Airport Influence Area). Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rivco.org.

3.2 Staff report recommended:
CONSISTENT

Staff recommended at hearing:
CONSISTENT

ALUC Commission Action:
CONSISTENT (Vote 6-0)

Motion: Michael Geller
Second: Larry Smith

ZAP1545MA22 – Lake Creek Industrial LLC (Representative: Sagecrest Planning Environmental) – City of Perris Case Nos. SPA22-05053 (Specific Plan Amendment), DPR20-00021(Development Plan Review), TPM38385 (Tentative Parcel Map). A proposal to construct a 254,211 square foot warehouse building with mezzanines on 12.59 acres located southerly of Rider Street, northerly of Placentia Avenue, easterly of Redlands Avenue, and westerly of Wilson Avenue. The applicant also proposes to amend the Perris Valley Commerce Center Specific Plan to vacate Walnut Street from the Circulation Plan. The applicant also proposes merging the existing six parcels into one parcel (Airport Compatibility Zone B2 of the March Air Reserve Base/Inland Port Airport Influence Area). Staff Planner: Jackie Vega at (951) 955-0982, or e-mail at Javega@rivco.org

VIDEO:

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

3.3 Staff report recommended:
CONSISTENT

Staff recommended at hearing:
CONSISTENT

ALUC Commission Action:
CONSISTENT (Vote 6-0)

Motion: Richard Stewart
Second: Steven Stewart

ZAP1546MA22 – Lake Creek Industrial LLC (Representative: Sagecrest Planning Environmental) – City of Perris Case Nos. SPA22-05052 (Specific Plan Amendment), DPR20-00020 (Development Plan Review), TPM38386 (Tentative Parcel Map). A proposal to construct a 334,040 square foot warehouse building with mezzanines on 20.14 acres, located westerly of Redlands Avenue, northerly of Placentia Avenue, southerly of Rider Street. The applicant also proposes to amend the Perris Valley Commerce Center Specific Plan to vacate Russell Way from the Circulation Plan. The applicant also proposes merging the existing eight parcels into one parcel (Airport Compatibility Zone B2 of the March Air Reserve Base/Inland Port Airport Influence Area). Staff Planner: Jackie Vega at (951) 955-0982, or e-mail at Javega@rivco.org

3.4 Staff report recommended:
CONSISTENT

Staff recommended at hearing:
CONSISTENT

ALUC Commission Action:
CONSISTENT (Vote 6-0)

Motion: Michael Geller
Second: Steve Manos

ZAP1089BD22 – Bermuda Dunes Organics, LLC (Representative: Capital Building Services) – County of Riverside Planning Department Case Nos. CUP220028 (Conditional Use Permit), TPM38590 (Tentative Parcel Map). A proposal to construct a 3,258 square foot cannabis retail building on 7.02 acres located southerly of Country Club Drive, westerly of Yucca Lane, westerly of Washington Street, and northerly of Harris Lane. The applicant also proposes to divide the site into two commercial parcels. No other development on the site is proposed at this time (Airport Compatibility Zone B1 of the Bermuda Dunes Airport Influence Area). Staff Planner: Paul Rull at (951) 955-6893, or e-mail at **prull@rivco.org**

3.5 Staff report recommended:
CONSISTENT

Staff recommended at hearing:
CONSISTENT

ALUC Commission Action:
CONSISTENT (Vote 6-0)

Motion: Michael Geller
Second: Steven Stewart

ZAP1039FL22 – City of Jurupa Valley (Representative: Beth La Rock, Flabob Airport Manager) – City of Jurupa Valley Case Nos. GPA22007 (General Plan Amendment), CZ22008 (Change of Zone), ZCA22013 (Zoning Code Amendment). A City-initiated proposal establishing a new Airport Zone for the Flabob Airport that would remove the existing mixture of incompatible zoning and would allow aviation and airport supportive land uses at the airport, generally located westerly of Crestmore Road, northerly of Mission Rock Way, southerly of Capary Road, and easterly of 46th Street. In order to implement the new Airport Zone, the City proposes: 1) a General Plan Amendment to amend the General Plan Land Use map designations of the project site from Business Park, Residential Rural, Open Space-Rural, and Public Facilities to Public Faculties/Institutional, to be consistent with the new Airport Zone; 2) a Change of Zone of the project site from Manufacturing High (M-H), Manufacturing Service Commercial (M-SC), General Residential (R-3), Planned Residential (R-4), and Light Agriculture (A-1) to Airport Zone (AIR); and 3) a Zoning Code Amendment to add the new Airport Zone to the City's Municipal Code. No physical development is proposed at this time (Airport Compatibility Zones A, B1, B2, and D of the Flabob Airport Influence Area). Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rivco.org

VIDEO:

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

3.6 Staff report recommended: **CONSISTENT**

Staff recommended at hearing: **CONSISTENT**

ALUC Commission Action: **CONSISTENT (Vote 6-0)**

Motion: Vernon Poole
Second: Steven Stewart

ZAP1122FV22 – SunRenu Green Builders (Representative: Barry Coe) – County of Riverside Case No. BNR2200112 (Building Permit). A proposal to construct a 6,411 square foot carport with solar panels within an existing office parking lot on 2.86 acres at 29970 Technology Drive, located on the northeast corner of Technology Drive and Winchester Road (Airport Compatibility Zone C of the French Valley Airport Influence Area). Staff Planner: Jackie Vega at (951) 955-0982, or e-mail at Javega@rivco.org

4.0 PUBLIC HEARING: MISCELLANEOUS ITEMS

None

5.0 ADMINISTRATIVE ITEMS

5.1 Director's Approval's – Information Only

5.2 Update March Air Reserve Base Compatible Use Study (CUS)

Simon Housman, Project Director March CUS informed the Commission that there will be a Hybrid Public Workshop Presentation at the Riverside County Board Chambers on November 15, at 6:30 p.m. by Zoom Meeting. The next step is the 95% final draft expected from the consultant sometime in December and if on schedule the Commission will have the final document presented to it sometime in February 2023.

5.3 ALUC Concern Letter Regarding City of Moreno Valley Heacock Parking Lot in the Clear Zone

Paul Rull, ALUC Director informed the Commission that he prepared a concern letter to the City of Moreno Valley regarding a parking lot proposed in the Clear Zone, Zone A of the March Air Reserve Base. The letter was submitted to the City, who also received other letters of concern from other jurisdictions and entities. The Planning Department indicated that the applicant will be reaching out to the people who commented on the project with these concerns.

6.0 APPROVAL OF MINUTES

Commissioner Steven Stewart motioned to approve the October 13, 2022 minutes. Seconded by Richard Stewart. Vote 5-0; Abstained: Michael Geller

7.0 ORAL COMMUNICATION ON ANY MATTER NOT ON THE AGENDA

Paul Rull, ALUC Director reminded the Commission that due to a meeting conflict the ALUC public hearing meeting is scheduled for **Thursday, December 15th** and not December 8th.

8.0 COMMISSIONER'S COMMENTS

None

9.0 ADJOURNMENT

Steve Manos, Chair adjourned the meeting at 10:51 a.m.

VIDEO:
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